Air Quality Analysis for the California Terraces Planning Area 61, Lot 1 Project San Diego, California

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Acronyms and Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
APCD	Air Pollution Control District
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of San Diego
CO	carbon monoxide
CPA	Community Plan Amendment
CPU	Community Plan Update
DPM	diesel particulate matter
EMFAC	Emissions Factor Model
FEIR	Final Environmental Impact Report
HQ	Hazard Quotient
HRA	Health Risk Assessment
kg	kilogram
MERV-13	minimum efficiency reporting value 13
mg	milligrams
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
OEHHA	Office of Environmental Health Hazard Assessment
Otay Mesa CPU FEIR	Final Program Environmental Impact Report for the Otay Mesa Community Plan Update
PA	Planning Area
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or less
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 microns or less
ppb	parts per billion
ppm	parts per million
project	California Terraces Planning Area 61, Lot 1 Project
RAQS	Regional Air Quality Standards
REL	Reference Exposure Levels
ROG	reactive organic gases
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SO_2	sulfur dioxide

SO_X	oxides of sulfur
SR-905	State Route 905
TAC	toxic air contaminants
TCM	Transportation Control Measures
U.S. EPA	U.S. Environmental Protection Agency

Executive Summary

This report evaluates potential local and regional air quality impacts associated with the proposed California Terraces Planning Area (PA) 61 project (project), located north of State Route 905 (SR-905) and southeast of the intersection of Otay Mesa Road and Ocean View Hills Parkway/Caliente Avenue in the Otay Mesa Community Plan area, in the city of San Diego, California. The project site is the western portion (Lot 2) of California Terraces PA-61 project area, which is currently undeveloped. In 2019, the action to subdivide California Terraces PA-61 into two lots was approved by the City of San Diego (City) as part of Project No. 605191 (2019 project). The 2019 project includes an approved site plan for the development of 45,000 square feet of commercial use within the project site. The project would include a Community Plan Amendment to redesignate the project site to Residential Medium (15-29 dwelling units per acre) and a rezone to RM-3-7 to allow for the construction of 79 multi-family units.

The primary goal of the San Diego Air Pollution Control District's Regional Air Quality Strategy (RAQS) is to reduce ozone precursor emissions. The project site is designated as Commercial Employment, Retail, and Services in the City of San Diego's General Plan and as Community Commercial in the Otay Mesa Community Plan. The project would require a Community Plan Amendment to redesignate the site from Community Commercial – Residential Prohibited to Residential Medium (15-29 dwelling units per acre) to allow for the construction of 79 multi-family units. However, the project would generate less emissions than the existing land use designation upon which the current RAQS is based and would generate less emissions than the previously approved 2019 project. Thus, it can be concluded that the project would not obstruct or conflict with the implementation of the RAQS, and impacts associated with air quality plans would be less than significant.

Additionally, as calculated in this analysis, project construction emissions would not exceed the applicable City of San Diego emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions would be well below these limits, project construction would not result in regional emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) or contribute to existing violations. Additionally, construction emissions would be temporary, intermittent, and would cease at the end of project construction. Construction related impacts would be less than significant.

Long-term emissions of regional air pollutants occur from operational sources. Based on emissions estimates, project operational emissions would not exceed the applicable regional emissions thresholds. Therefore, as project emissions would be well below these limits, project operations would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Operational related impacts would be less than significant.

California Air Resources Board (CARB) recommends that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible. Because this cannot always be avoided, CARB has also provided guidance for strategies that can be implemented to reduce the exposure to air pollution near heavily traveled roadways. The residential uses at the southern portion of the project site would be located within 500 feet of SR-905. A

site-specific health risk assessment was prepared for the project site. The site-specific health risk assessment was based on assumptions regarding emissions from diesel-fueled truck traffic on SR-905.

Based on the predicted ground level concentrations, the excess cancer risk would be approximately 11.1 in a million for the maximally exposed resident, and the non-cancer chronic risk would be less than the health hazard index. However, in accordance with the 2019 California Building Code–Title 24, the project would include minimum efficiency reporting value 13 (MERV-13) filters. All units would be equipped with a heating, ventilation, and air conditioning unit with air filters capable of meeting MERV-13 or better. MERV-13 filters are capable of filtering particles ranging from 1.0 to 10.0 parts per million (ppm) in size by more than 90 percent (CARB 2017). Thus, with the provision of MERV-13 filters, the potential incremental increase in cancer risk would be reduced to less than significant. It should be noted that the variability in parameters such as absorption rates, breathing rates, body weight, and frequency of exposure exists even in a narrowly defined age group or sensitive receptor subpopulation. This creates a level of uncertainty in calculating exposures and associated risks for individuals within a particular receptor population that presumably would receive the same intake doses. Thus, for this analysis the Office of Environmental Health Hazard Assessment (OEHHA) standard default factors, which represent the upper limit of these exposure parameters, generally overestimate risks. Thus, the risks reported represent an upper-bound of estimated risk and are considered conservative.

The project does not include heavy industrial or agricultural uses that are typically associated with objectionable odors. The project would involve the use of diesel-powered equipment during construction. Diesel exhaust may occasionally be noticeable at adjacent properties; however, construction activities would be temporary, and the odors would dissipate quickly in an outdoor environment. Therefore, this impact would be less than significant.

The project would not result in the generation of 100 pounds per day or more of particulate matter. Additionally, standard dust control measures would be implemented as a part of project construction. Particulate matter impacts would be less than significant.

Parcels located south, east, and west of the project site are currently vacant. Development is not dense enough to form an urban canyon, and buildings do not form contiguous or near contiguous frontage. The project is not anticipated to contribute to a substantial alteration of air movement that would affect air quality. Impacts would be less than significant.

1.0 Introduction

The purpose of this report is to assess potential short-term and long-term local and regional air quality impacts resulting from development of the proposed California Terraces Planning Area (PA) 61 project (project).

Air pollution affects all southern Californians. Effects can include increased respiratory infections, increased discomfort, missed days from work and school, and increased mortality. Polluted air also damages agriculture and our natural environment.

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. The project site is located within the San Diego Air Basin (SDAB). The SDAB is currently classified as a federal non-attainment area for ozone, and a state non-attainment area for particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), and ozone.

Air quality impacts can result from the construction and operation of the project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot-spot effects stemming from sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts would be primarily due to emissions to the basin from mobile sources associated with vehicular travel along the roadways within the project area.

The analysis of impacts is based on federal and state Ambient Air Quality Standards and is assessed in accordance with the guidelines, policies, and standards established by the City of San Diego (City) and the San Diego Air Pollution Control District (SDAPCD). Project compatibility with the adopted air quality plan for the area is also assessed. Measures are recommended, as required, to reduce potentially significant impacts.

2.0 Project Description and Mitigation Framework

2.1 Project Description

The project site is located north of State Route 905 (SR-905), southeast of the intersection of Otay Mesa Road and Ocean View Hills Parkway/Caliente Avenue in the Otay Mesa Community Plan area, in the city of San Diego, California. Figure 1 shows the regional location. An aerial photograph of the project site and vicinity is shown in Figure 2. The project site is bounded by multi-family uses to the north, SR-905 and open space to the south, San Ysidro High School to the southwest, and vacant land to the east and west. The project site is currently undeveloped.

Project Location

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FIGURE 1

Regional Location

Image Source: Nearmap (flown April 2021)

FIGURE 2

Project Location on Aerial Photograph

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As stated above, the action to subdivide California Terraces PA-61 into two lots was approved by the City as part of Project No. 605191. Final Map No. 16413 was recorded on August 27, 2020. The approved action included construction up to 267 multi-family dwelling units within the eastern portion of the site (Lot 2) and 45,000 square feet of commercial use within the 4.5-acre western portion (Lot 1; project site). Lot 2 is currently under construction.

The current action is limited to Lot 2 and includes a request for a Community Plan Amendment (CPA) to redesignate the approximate 4.5-acre site from Community Commercial – Residential Prohibited to Residential Medium (15-29 dwelling units per acre). A rezone is proposed from CC-1-3 to RM-3-7 which would implement the proposed residential land use. A Vesting Tentative Map is requested to allow the development of 79 residential unit condominiums (10 percent or 8 units would be allocated as affordable housing). Overall, the project would result in a density of 17.6 dwelling units per acre. The project would provide 10 percent, or 8 dwelling units which would qualify as affordable housing. Figure 3 shows the proposed site plan.

2.2 Otay Mesa CPU Mitigation Framework

Air quality impacts associated with the Otay Mesa Community Plan Update (CPU) were addressed in the Final Program Environmental Impact Report for the Otay Mesa Community Plan Update (Otay Mesa CPU FEIR; Project Number 30330/304032, SCH No. 2004651076) approved by the City in 2013 (City of San Diego 2013). The following air quality mitigation framework applies to the project:

AQ-1: For projects that would exceed daily construction emissions thresholds established by the City, best available control measures/technology shall be incorporated to reduce construction emissions to below daily emission standards established by the City. Best available control measures/technology shall include:

a. Minimizing simultaneous operation of multiple pieces of construction equipment;

b. Use of more efficient, or low pollutant emitting, equipment, e.g. Tier III or IV rated equipment;

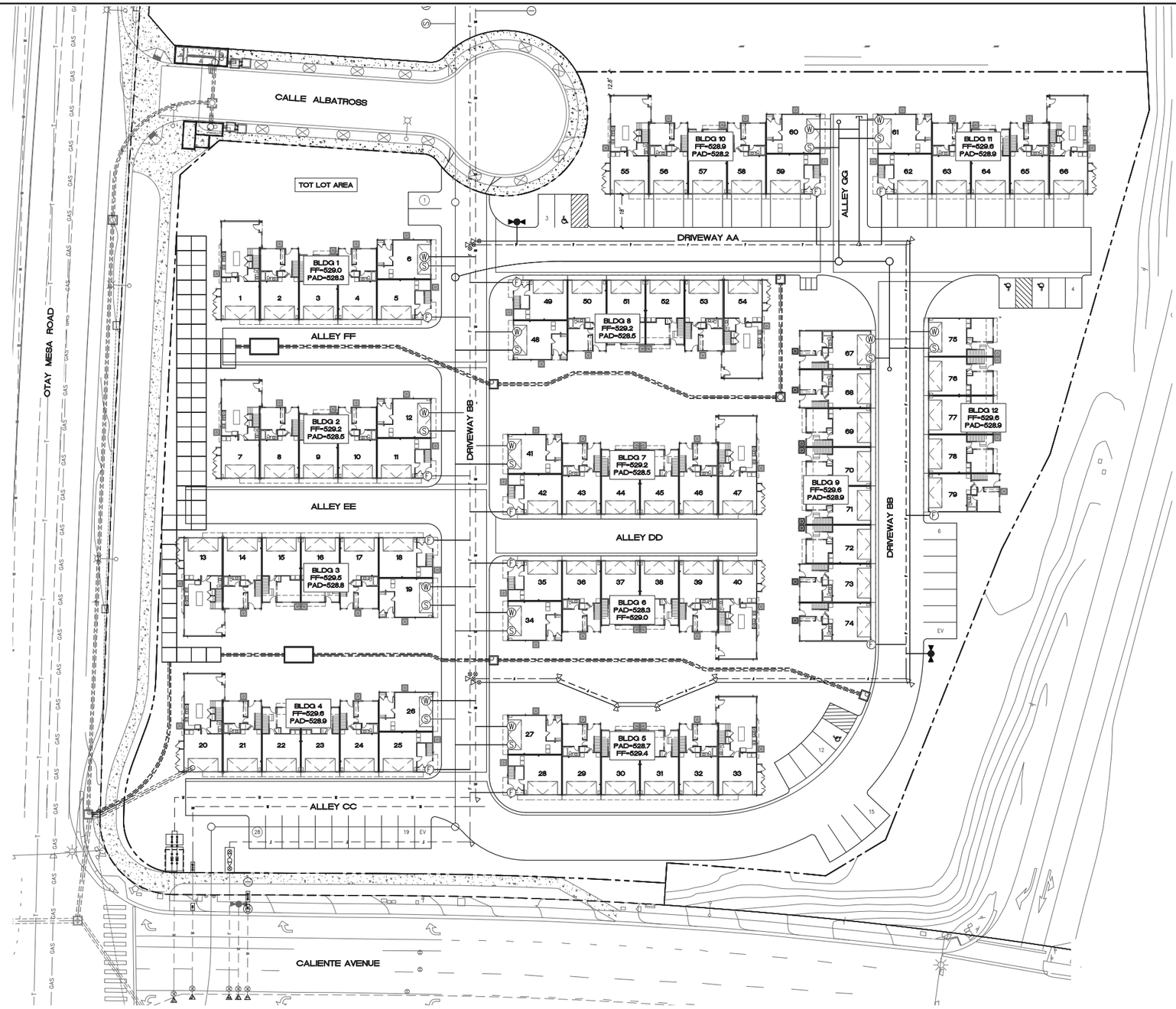
c. Use of alternative fueled construction equipment;

d. Dust control measures for construction sites to minimize fugitive dust, e.g. watering, soil stabilizers, and speed limits; and

e. Minimizing idling time by construction vehicles.

AQ-2: Development that would significantly impact air quality, either individually or cumulatively, shall receive entitlement only if it is conditioned with all reasonable mitigation to avoid, minimize, or offset the impact. As a part of this process, future projects shall be required to buffer sensitive receptors from air pollution sources through the use of landscaping, open space, and other separation techniques.

Map Source: Civil Sense Inc



PROJECT INFORMATION

EXISTING ZONE: CC-1-3 (COMMUNITY COMMERCIAL)
PROPOSED ZONE: RM-2-5 (RESIDENTIAL-MULTIPLE UNIT)

PARKING REQUIREMENTS

VEHICLE PARKING

REQUIRED AUTOMOBILE SPACES (PER SDMC 142-05C)

PLAN 1	2BR	10
PLAN 2	2BR	10
PLAN 3.1	3BR	14
PLAN 3.2	3BR	10
PLAN 4.1	4BR	19
PLAN 4.2	4BR	6
PLAN 5	5BR	10
	TOTAL:	79

79 DU x 2.00 = 158 REQUIRED PARKING SPACES

ACCESSIBLE PARKING SUMMARY (PER SDM-117)

158 x 0.02 = 3 ACCESSIBLE PARKING REQUIRED
3 / 6 = 1 VAN ACCESSIBLE SPACES REQUIRED

TOTAL ACCESSIBLE PARKING SPACES REQUIRED

3	ACCESSIBLE SPACES
1	VAN ACCESSIBLE SPACES
4	TOTAL ACCESSIBLE SPACES

PROVIDED PARKING SUMMARY

158	GARAGE SPACES
4	ACCESSIBLE SPACES
2	EV AND EV CAPABLE SPACES
20	DRIVEWAY PARKING (10 UNITS)
28	OPEN SPACES
212	TOTAL SPACES PROVIDED

MOTORCYCLE PARKING SUMMARY (PER SDMC 142-05C)

79 DU x .1 = 0.79 REQUIRED PARKING SPACES

TOTAL MOTORCYCLE PARKING SPACES REQUIRED

1 ACCESSIBLE SPACES

BICYCLE PARKING SUMMARY

NOT REQUIRED FOR DWELLING UNITS WITH ENCLOSED GARAGES

EARTHWORK QUANTITIES (FROM MASS GRADE)

RAW QUANTITIES

3,000 CUBIC YARDS CUT
5,600 CUBIC YARDS FILL
2,600 CUBIC YARDS IMPORT

2' UNDERCUT SECTION IN STREET GENERATES
3,600 CUBIC YARDS

IMPORT 1,000 CUBIC YARDS NOT TAKING INTO ACCOUNT SHRINKING, BULKING, OR UTILITY SPOILS

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FIGURE 3
Site Plan

AQ-3: Prior to the issuance of building permits for any new facility that would have the potential to emit toxic air contaminants, in accordance with Assembly Bill 2588, an emissions inventory and health risk assessment shall be prepared. If adverse health impacts exceeding public notification levels (cancer risk equal to or greater than 10 in 1,000,000; see Section 5.3.5.1 [b and c]) are identified, the facility shall provide public notice to residents located within the public notification area and submit a risk reduction audit and plan to the Air Pollution Control District (APCD) that demonstrates how the facility would reduce health risks to less than significant levels within five years of the date the plan.

AQ-4: Prior to the issuance of building permits for any project containing a facility identified in Table 5.3-7 [of the Otay Mesa CPU FEIR], or locating air quality sensitive receptors closer than the recommended buffer distances, future projects implemented in accordance with the CPU shall be required to prepare a health risk assessment (HRA) with a Tier I analysis in accordance with APCD HRA Guidelines and the Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines (SDAPCD 2006; OEHHA 2003).

All HRAs shall include:

1. The estimated maximum 70-year lifetime cancer risk;
2. The estimated maximum non-cancer chronic health hazard index; and
3. The estimated maximum non-cancer acute health hazard index.

Risk estimates shall each be made for the off-site point of maximum health impact, the maximally exposed individual resident, and the maximally exposed individual worker. The location of each of these receptors shall be specified. The lifetime cancer risk, non-cancer chronic and acute health hazard indexes for nearby sensitive receptors shall also be reported. Cancer and non-cancer chronic risk estimates shall be based on inhalation risks. HRAs shall include estimates of population exposure, including cancer burden, as well as cancer and non-cancer chronic and acute risk isopleths (contours). The HRA shall identify best available control technology required to reduce risk to less than 10 in 1,000,000.

3.0 Regulatory Framework

3.1 Federal Regulations

Ambient Air Quality Standards (AAQS) represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 (42 United States Code [USC] 7401) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. Environmental Protection Agency (U.S. EPA) developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (PM_{10} and $PM_{2.5}$). The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . ." and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" (42 USC 7409[b][2]). The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 1 (California Air Resources Board [CARB] 2016).

An air basin is designated as either attainment or non-attainment for a particular pollutant. Once a non-attainment area has achieved the AAQS for a particular pollutant, it is re-designated as an attainment area for that pollutant. To be redesignated, the area must meet air quality standards for three consecutive years. After re-designation to attainment, the area is known as a maintenance area and must develop a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. The SDAB is a non-attainment area for the federal ozone standard.

3.2 State Regulations

3.2.1 Criteria Pollutants

The CARB has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS (see Table 1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 1).

Similar to the federal CAA, the state classifies as either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The SDAB is a non-attainment area for the state ozone standards, the state PM_{10} standard, and the state $PM_{2.5}$ standard.

3.2.2 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. 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 (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The California Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

Table 1 Ambient Air Quality Standards						
		California Standards[1]		National Standards[2]		
Pollutant	Averaging Time	Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			
See footnotes on next page.						

Table 1
Ambient Air Quality Standards

ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; – = not applicable.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, 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 arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, 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 the U.S. EPA for further clarification and current national 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 measurement method which can be shown to the satisfaction of the Air Resources Board 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 U.S. 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 U.S. EPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standards of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] The Air Resources Board 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.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII. Of particular concern statewide are diesel-exhaust particulate matter emissions. Diesel-exhaust particulate matter was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter (DPM) as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000).

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible.

However, transit-oriented, infill, and compact development characterizes many communities located near heavily traveled roadways. This type of development pattern has many benefits, including reducing traffic. To address these issues, in April 2017, CARB published the *Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (Technical Advisory; CARB 2017). The Technical Advisory acknowledges the benefits of transit-oriented infill development, which often occurs adjacent to high-volume roadways, and identifies strategies to reduce exposure, including practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution, and remove pollution from the air. Strategies that reduce traffic emissions include speed

reduction mechanisms (e.g., reduced speed limits, speed bumps, roundabouts) and traffic signal management. Strategies that increase the dispersion of traffic emissions include land use designs that promote airflow and pollutant dispersion along street corridors, solid barriers (such as sound walls), and vegetation. Strategies that remove pollution from the air include indoor high efficiency filtration.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

3.2.3 State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The SDAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SIP plans for San Diego County specifically include the Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County (SDAPCD 2012), and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide – Updated Maintenance Plan for Ten Federal Planning Areas (CARB 2004).

3.2.4 The California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

3.3 San Diego Air Pollution Control District

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the Regional Air Quality Strategy (RAQS) in response to the requirements set forth in the California CAA AB 2595 (SDAPCD 1992) and the federal CAA. Motor vehicles are San Diego County's leading source of air pollution (SDAPCD 2013). In addition to these sources, other mobile sources include construction equipment, trains, and airplanes. Reducing mobile source emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources, such as those associated with new or modification projects (e.g., retrofitting older vehicles with cleaner emission technologies). In addition to mobile sources, stationary sources also contribute to air pollution in the

SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SDAPCD.

The SDAPCD is responsible for preparing and implementing the RAQS. As part of the RAQS, the SDAPCD developed Transportation Control Measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The RAQS and TCM set forth the steps needed to accomplish attainment of NAAQS and CAAQS. The required triennial updates of the RAQS and corresponding TCM were adopted in 1995, 1998, 2001, 2004, 2009, and 2016.

The SDAPCD has also established a set of rules and regulations initially adopted on January 1, 1969 and periodically reviewed and updated. These rules and regulations are available for review on the agency's website.

4.0 Environmental Setting

4.1 Geographic Setting

The project is located in the city of San Diego, about seven miles east of the Pacific Ocean. The eastern portion of the SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow and concentrate pollutants in the valleys and low-lying areas below.

4.2 Climate

The project area, like the rest of San Diego County, has a Mediterranean climate characterized by warm, dry summers and mild winters. The mean annual temperature for the project area is 63 degrees Fahrenheit (°F). The average annual precipitation is 9 inches, falling primarily from November to April. Winter low temperatures in the project area average about 50°F, and summer high temperatures average about 76°F (National Oceanic and Atmospheric Administration 2021).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become "trapped" as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

Throughout the year, the height of the temperature inversion in the afternoon varies between approximately 1,500 and 2,500 feet above mean sea level. In winter, the morning inversion layer is about 800 feet above mean sea level. In summer, the morning inversion layer is about 1,100 feet above mean sea level. Therefore, air quality generally tends to be better in the winter than in the summer.

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported and locally produced contaminants produce the worst air quality measurements recorded in the basin.

4.3 Existing Air Quality

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the U.S. EPA. The SDAPCD currently maintains nine air quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The Chula Vista monitoring station, located at 80 East J Street, approximately five miles northwest of the project site, is the nearest station to the project site that measures a range of pollutants. The Chula Vista monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 2 provides a summary of measurements collected at the Chula Vista monitoring station for the years 2015 through 2019.

Table 2 Summary of Air Quality Measurements Recorded at the Chula Vista Air Quality Monitoring Station					
Pollutant/Standard	2015	2016	2017	2018	2019
Ozone					
Federal Max 8-hr (ppm)	0.066	0.068	0.074	0.064	0.076
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	0	0	1	0	2
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0	0	1
State Max 8-hr (ppm)	0.067	0.069	0.075	0.065	0.077
Days State 8-hour Standard Exceeded (0.07 ppm)	0	0	1	0	2
Max. 1-hour (ppm)	0.088	0.073	0.085	0.076	0.090
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0	0	0
Nitrogen Dioxide					
Max 1-hour (ppm)	0.049	0.054	0.057	0.052	0.050
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Annual Average (ppm)	0.010	0.009	--	0.009	0.008
PM_{10}*					
Federal Max. Daily ($\mu g/m^3$)	46.0	48.0	59.0	45.0	68.2
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0.0	0.0	0.0	0.0	--
Federal Annual Average ($\mu g/m^3$)	19.7	21.6	21.4	20.7	17.2
State Max. Daily ($\mu g/m^3$)	45.0	48.0	61.0	45.0	69.4
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0	0	1	0	1
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0.0	0.0	6.5	--	--
State Annual Average ($\mu g/m^3$)	19.8	21.8	21.7	--	--
$PM_{2.5}$*					
Federal Max. Daily ($\mu g/m^3$)	33.5	23.9	42.7	41.9	18.6
Measured Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	0	0	1	1	0
Calculated Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	0.0	0.0	--	2.7	0.0
Federal Annual Average ($\mu g/m^3$)	8.3	8.7	--	9.9	8.1
State Max. Daily ($\mu g/m^3$)	33.5	23.9	42.7	41.9	18.6
State Annual Average ($\mu g/m^3$)	8.4	8.7	--	10.0	--

SOURCE: CARB 2021.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; -- = Not available.

* Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

4.3.1 Ozone

Nitrogen oxides (NO_X) and hydrocarbons (reactive organic gases [ROG]) are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution—or smog—is mainly a concern during the daytime in summer months. The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 25 years, San Diego had experienced a decline in the number of days with unhealthy levels of ozone despite the region's growth in population and vehicle miles traveled (SDAPCD 2013).

About half of smog-forming emissions come from automobiles. Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants while operating on area roadways. In addition, the occasional transport of smog-filled air from the South Coast Air Basin only adds to the SDAB's ozone problem. Stricter automobile emission controls, including more efficient automobile engines, have played a large role in why ozone levels have steadily decreased.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a non-attainment area for the previous (1997) national 8-hour standard and is recommended as a non-attainment area for the revised (2008) national 8-hour standard of 0.075 parts per million (ppm).

Not all the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from the Los Angeles Basin and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced ozone levels in the SDAB.

Actions that have been taken in the SDAB to reduce ozone concentrations include:

- TCMs if vehicle travel and emissions exceed attainment demonstration levels. TCMs are strategies that will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.

- Enhanced motor vehicle inspection and maintenance program. The smog check program is overseen by the Bureau of Automotive Repair. The program requires most vehicles to pass a smog test once every two years before registering in the state of California. The smog check program monitors the amount of pollutants automobiles produce. One focus of the program is identifying "gross polluters," or vehicles that exceed two times the allowable emissions for a particular model. Regular maintenance and tune-ups, changing the oil, and checking tire inflation can improve gas mileage and lower air pollutant emissions. It can also reduce traffic congestion due to preventable breakdowns, further lowering emissions.

- Air Quality Improvement Program. This program, established by AB 118, is a voluntary incentive program administered by the CARB to fund clean vehicle and equipment projects, research on biofuels production and the air quality impacts of alternative fuels, and workforce training.

4.3.2 Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for CO. Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as "CO hot spots" and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

4.3.3 Particulate Matter

Particulate matter is a complex mixture of microscopic solid or liquid particles including chemicals, soot, and dust. Anthropogenic sources of direct particulate emissions include crushing or grinding operations, dust stirred up by vehicle traffic, and combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning and industrial processes. Additionally, indirect emissions may be formed when aerosols react with compounds found in the atmosphere.

Health studies have shown a significant association between exposure to particulate matter and premature death in people with heart or lung diseases. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (U.S. EPA 2021).

As its properties vary based on the size of suspended particles, particulate matter is generally categorized as PM_{10} or $PM_{2.5}$.

4.3.3.1 PM_{10}

PM_{10}, occasionally referred to as "inhalable coarse particles," has an aerodynamic diameter of about one-seventh of the diameter of a human hair. High concentrations of PM_{10} are often found near roadways, construction, mining, or agricultural operations.

4.3.3.2 $PM_{2.5}$

$PM_{2.5}$, occasionally referred to as "inhalable fine particles," has an aerodynamic diameter of about one-thirtieth of the diameter of a human hair. $PM_{2.5}$ is the main cause of haze in many parts of the United States. Federal standards applicable to $PM_{2.5}$ were first adopted in 1997.

4.3.4 Other Criteria Pollutants

The national and state standards for NO_2, oxides of sulfur (SO_X), and the previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that these standards will not be

exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for vinyl chloride, hydrogen sulfides, sulfates, and visibility-reducing particulates.

5.0 Thresholds of Significance

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the CEQA Guidelines Appendix G and the City Significance Determination Thresholds. The project would have a significant air quality impact if it would (City of San Diego 2016):

1. Obstruct or conflict with the implementation of the RAQS.
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates.
4. Create objectionable odors affecting a substantial number of people.
5. Exceed 100 pounds per day of particulate matter (dust).
6. Result in a substantial alteration of air movement in the area.

The SDAPCD does not provide specific numeric thresholds for determining the significance of air quality impacts under CEQA. However, the SDAPCD does specify Air Quality Impact Analysis trigger levels for new or modified stationary sources (SDAPCD Rules 20.1, 20.2, and 20.3). The SDAPCD does not consider these trigger levels to represent adverse air quality impacts, rather, if these trigger levels are exceeded by a project, the SDAPCD requires an air quality analysis to determine if a significant air quality impact would occur. While, these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the project were approved.

The SDAPCD trigger levels are also utilized by the City in its Significance Determination Thresholds (City of San Diego 2016) as one of the considerations when determining the potential significance of air quality impacts for projects within the city. The air quality impact screening levels used in this analysis are shown in Table 3.

Table 3 Air Quality Impact Screening Levels			
	Emission Rate		
Pollutant	Pounds/Hour	Pounds/Day	Tons/Year
NO_X	25	250	40
SO_X	25	250	40
CO	100	550	100
PM_{10}	--	100	15
Lead	--	3.2	0.6
VOC, ROG	--	137	15
$PM_{2.5}$[a]	--	67	10
SOURCE: SDAPCD, Rules 20.1, 20.2, 20.3; City of San Diego 2016. [a]The City does not specify a threshold for $PM_{2.5}$. Threshold here is based on SDAPCD, Rules 20.1, 20.2, 20.3.			

6.0 Air Quality Assessment

Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional or local. In the case of this project, operational impacts are primarily due to emissions from mobile sources associated with vehicular travel along the roadways within the project area.

Construction and operation air emissions were calculated using California Emissions Estimator Model (CalEEMod) 2020.4.0 (California Air Pollution Control Officers Association [CAPCOA] 2021). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. The model estimates mass emissions from two basics sources: construction sources and operational sources (i.e., area and mobile sources).

Inputs to CalEEMod include such items as the air basin containing the project, land uses, trip generation rates, trip lengths, vehicle fleet mix (i.e., percentage of autos, medium truck, etc.), trip destination (i.e., percent of trips from home to work, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The CalEEMod output files contained in Attachment 1 indicate the specific outputs for each model run. Emissions of NO_X, CO, SO_X, PM_{10}, $PM_{2.5}$, and ROG are calculated. Emission factors are not available for lead, and consequently, lead emissions are not calculated. The SDAB is currently in attainment of the federal and state lead standards. Furthermore, fuel used in construction equipment and most other vehicles is not leaded.

6.1 Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include the following:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and

- Construction-related power consumption.

Construction-related pollutants result from dust raised during demolition and grading, emissions from construction vehicles, and chemicals used during construction. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Construction operations are subject to the requirements established in Regulation 4, Rules 52, 54, and 55, of the SDAPCD's rules and regulations.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more NO_X, SO_X, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters are not available at this time. However, CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The estimates are based on surveys, performed by the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District, of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters. Construction emissions were modeled assuming construction would begin in January 2022 and last for approximately one year. Assuming construction would begin in January 2022 is conservative, as continued implementation of regulations for off-road equipment, the primary construction emission source, would reduce emissions from these sources over time.

Table 4 shows the total projected construction maximum daily emission levels for each criteria pollutant. The CalEEMod output files for construction emissions are contained in Attachment 1.

Table 4
Summary of Worst-case Construction Emissions
(pounds per day)

Construction	Pollutant					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	3	33	20	<1	21	12
Grading	2	28	17	<1	9	5
Building Construction	2	16	18	<1	1	1
Paving	1	10	13	<1	1	<1
Architectural Coatings	62	1	2	<1	<1	<1
Maximum Daily Emissions	**62**	**33**	**20**	**<1**	**21**	**12**
Significance Threshold	*137*	*250*	*550*	*250*	*100*	*67*

Standard dust control measures would be implemented as a part of project construction in accordance with SDAPCD rules and regulations. Fugitive dust emissions were calculated using CalEEMod default values and did not take into account the required dust control measures. Thus, the emissions shown in Table 4 are conservative.

For assessing the significance of the air quality emissions resulting during construction of the project, the construction emissions were compared to the City significance thresholds shown in Table 4. As shown in Table 4, maximum daily construction emissions associated with the project are projected to be less than the applicable thresholds for all criteria pollutants. Construction related air quality impacts would be less than significant.

6.2 Operation Emissions

6.2.1 Mobile and Area Source Emissions

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from the use of natural gas, consumer products, as well as applying architectural coatings and landscaping activities.

Mobile source operational emissions are based on the trip rate, trip length for each land use type and size. The project would generate 8 trips per dwelling unit for a total of 632 daily trips (City of San Diego 2003). This distance is multiplied by the total trip generation of the project to determine total project annual vehicle miles traveled. Default trip distances and default vehicle emission factors for the soonest operational year of 2023 were used.

Area source emissions associated with the project include consumer products, natural gas used in space and water heating, architectural coatings, and landscaping equipment. Hearths (fireplaces) and woodstoves are also a source of area emissions; however, the project would not include hearths or woodstoves. Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents, cleaning compounds, polishes, floor finishes, disinfectants, sanitizers, and aerosol paints but not including other paint products, furniture coatings, or architectural coatings. Emissions due to consumer products are calculated using total building area and product emission factors. Emissions are generated from the combustion of natural gas used in space and water heating. Emissions are based on the Residential Appliance Saturation Survey which is a comprehensive energy use assessment that includes the end use for various climate zones in California.

For architectural coatings, emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. Emissions are based on the building surface area, architectural coating emission factors, and a reapplication rate of 10 percent of area per year. Landscaping maintenance includes fuel combustion emission from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers as well as air compressors, generators, and pumps. Emission calculations take into account building area, equipment emission factors, and the number of operational days (summer days).

Table 5 provides a summary of the operational emissions generated by the project. CalEEMod output files for project operation are contained in Attachment 1. As shown, project-generated emissions are projected to be less than the City's significance thresholds for all criteria pollutants. Operational related air quality impacts would be less than significant.

Table 5
Summary of Project Operational Emissions
(pounds per day)

Source	Pollutant					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	2	<1	7	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	2	2	18	<1	4	1
Total	**4**	**2**	**24**	**<1**	**4**	**1**
Significance Threshold	*137*	*250*	*550*	*250*	*100*	*67*
NOTE: Totals may vary due to independent rounding.						

6.2.2 Diesel Particulate Matter

As discussed in Section 3.2.2, siting sensitive land uses adjacent to heavily traveled roadways can result in the exposure sensitive receptors to elevated levels DPM. A health risk assessment was prepared as a part of the Otay Mesa CPU FEIR. In that analysis, it was calculated that the carcinogenic risks associated with operations would be less than 10 in a million within the CPU area for the maximally exposed individual resident, the maximally exposed individual worker, and the maximum chronic hazard index would be below 1.0. However, the project site was designated as a commercial use under the Otay Mesa CPU, and the residential risk was not analyzed at the site. Additionally, in 2015, subsequent to the adoption of the Otay Mesa CPU, the U.S. EPA and OEHHA revised their guidance for the methodology for evaluation of excess cancer risk to include health risks to children with higher breathing rates and applied age sensitivity factors. The change in methodology results in an increase in the calculated cancer risk from inhalation. Further, updated traffic volumes and truck counts on SR-905 have become available.

The residential uses at the southern portion of the project site would be located within 500 feet of SR-905. For the reasons outlined above, a project-specific health risk assessment has been prepared for the project site.

The AERMOD dispersion model was used to calculate concentrations at the project site associated with emissions of TACs from SR-905. Surface and upper air meteorological data from the Lindberg Field and Chula Vista monitoring stations were used in the AERMOD model. The high-end excess cancer risk was calculated based on guidance from the Office of Environmental Health Hazard Assessment (OEHHA 2015), using the 95th percentile exposure assumptions for inhalation risks. The risks were calculated based on 9, 30, and 70 years of exposure for excess cancer risks and chronic non-cancer hazards for ages ranging from the last trimester of birth through age 70.

One source of uncertainty in calculating exposures is the assumption that individuals within a particular receptor population (or subpopulation) will receive the same intake doses. Variability in

parameters such as absorption rates, breathing rates, body weight, skin surface area, and frequency of exposure will exist even in a narrowly defined age group or sensitive receptor subpopulation. This range of uncertainty and variability is difficult to assess. In this analysis, OEHHA standard default factors representing the upper limit of these exposure parameters will generally overestimate risks. Thus, the risks reported in this analysis represent an upper-bound of estimated risk.

6.2.2.1 Exposure Assessment

The purpose of the exposure assessment is to estimate the extent of public exposure to emitted substances (OEHHA 2015). Under the OEHHA and U.S. EPA guidance, risk assessments for TACs consist of dispersion modeling of air toxic emissions to predict their downwind concentrations at the ground level. The methodology uses the model results in estimating potential health risks associated with exposure at the predicted concentrations.

The exposure assessment determines the quantities or concentrations of the risk agents received by the potentially exposed populations and receptors. The exposure assessment's emphasis is on calculating risk to maximally exposed individuals or small populations. This assessment is performed by determining the concentrations of chemicals at a location of interest and combining this information with the time that individuals or populations are exposed to the chemicals.

According to the OEHHA guidelines, an inhalation pathway cancer risk analysis must be evaluated for every health risk assessment (OEHHA 2015). Exposure through inhalation is a function of the breathing rate, the exposure frequency, and the concentration of a substance in the air (OEHHA 2015). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups: 3rd trimester of birth, 0 to less than 2 (0<2), 2 to less than 9 (2<9), 2 to less than 16 (2<16), 16 to less than 30 (16<30), and 16 to 70 years of age. These age-specific groupings are used with the age-sensitivity factors for cancer risk assessment. A first tier (Tier 1) evaluation uses the high-end point estimate (i.e., the 95th percentiles) breathing rates for the inhalation.

Additionally, OEHHA has developed age-sensitivity factors. Age-sensitivity factors are used to account for the increased susceptibility of infants and children to carcinogens, as compared to adults. The age-sensitivity factors calculation procedure includes the use of age-specific weighting factors in calculating cancer risks from exposures of infants, children, and adolescents, to reflect their anticipated special sensitivity to carcinogens. OEHHA recommends weighting cancer risk by a factor of 10 for exposures that occur from the 3rd trimester of pregnancy to 2 years of age, and by a factor of three for exposures that occur from 2 years through 16 years of age. An age sensitivity factor of 1 is applied to all other age groups.

This analysis is considered conservative, as the potential methods used tend to overestimate rather than underestimate health risks. In addition, individuals are evaluated under scenarios using the high-end point estimates for breathing rates. These higher breathing rates result in incremental cancer risk estimates that represent the upper-range of predictions and therefore health risks that may be associated with exposure to vehicles emissions from SR-905. Furthermore, the toxicity values (i.e., the values for each chemical at which an adverse health risk is predicted) are designed to protect health with an adequate margin of safety and are therefore conservative. Therefore, the health risks

calculated in this analysis represent the upper-bound of risks rather than actual values for any specific individual.

The emission factors used in the dispersion modeling and concentration estimates are based on the 2014 Emissions Factor Model (EMFAC 2014; CARB 2014) developed by CARB. Therefore, the emission factors take into account improvements in technology and rules for future emission reductions for on-road vehicles that have been implemented by CARB, but do not, and cannot take into account any future reductions that are proposed but not yet implemented. The methodology for calculating emissions based on the freeway traffic mix and by various speeds was developed from the California Department of Transportation's emissions factor model, which is currently based on EMFAC 2014. The EMFAC emission factors were also based on the aggregated vehicle age grouping include in EMFAC (Attachment 2).

Based on the California Department of Transportation's report, Annual Average Daily Truck Traffic on California State Highways, 2019, in the vicinity of the project, 8.0 percent of the traffic volumes on SR-905 are trucks (Caltrans 2019). The remaining vehicles are classified as automobiles. This percentage of trucks was further broken down by type 1 and type 2 trucks per the CT-EMFAC method, which resulted in a final vehicle classifications mix of: 92.0 percent non-trucks, of which 1.3 percent were diesel fueled; 3.8 percent being in the Truck 1 category, of which 61.3 percent were diesel fueled; and 4.2 percent classified as truck 2, of which 95.0 percent were diesel fueled. The vehicle classification mix was used in developing emission rates entered into AERMOD to determine ground level $PM_{2.5}$ concentrations from vehicle exhaust. To estimate potential incremental cancer risks and the potential for adverse chronic non-cancer health hazards to exposures, the dose through inhalation in air of TACs were calculated for the inhalation pathway. The equation for dose through inhalation (Dose-air) is as follows:

Dose-air = (C_{air} x DBR x A x EF x 10^{-6});
Where:

Dose-air	=	Chronic daily intake, milligrams per kilograms (mg/kg) body weight per day
C_{air}	=	Ground-level concentration of TAC to which the receptor is exposed, micrograms/cubic meter
DBR	=	Daily breathing rate, normalized to body weight (liters per kilogram body weight per day (as listed in the Table 5.6 Point Estimates of Residential Breathing Rates [OEHHA 2015]
A	=	Inhalation absorption factor (OEHHA recommended factor of 1)
EF	=	Exposure frequency, days/year (OEHHA recommended factor of 0.96 for resident and 0.68 for workers)

The 30-year residential exposure scenario is the recommended assessment scenario identified in the OEHHA guidelines, with the 9- and 70-year exposures disclosing the low and high end of risk. Exposure frequency and breathing rate represent worst-case values for these exposure parameters. In accordance with OEHHA guidelines, residents are assumed to be exposed for 24 hours per day, 350 days per year, for the exposure period. The 95th percentile breathing rate was used to calculate

exposure to TACs for the purpose of calculating excess cancer risk. For the purpose of calculating chronic and acute hazard index, the upper bound breathing rate was used.

6.2.2.2 Dose–Response Assessment

The dose-response assessment is the process of characterizing the relationship between exposure to an agent and incidence of an adverse health effect in exposed populations (OEHHA 2015). The assessment involves establishing a toxicity value or criterion to use in assessing potential health risk. The toxicity criterion, or health guidance value, for carcinogens is the cancer potency factor that describes the potential risk of developing cancer over a 70-year lifetime. It is assumed in cancer risk assessments that risk is directly proportional to dose and that there is no threshold for carcinogenesis (OEHHA 2015). Cancer potency factors are typically expressed as a high-end probability of developing cancer assuming continuous lifetime exposure to a substance at a dose of one milligram per kilogram of body weight and are expressed in units of inverse dose as a potency slope [i.e., $(mg/kg/day)^{-1}$]. The cancer potency factors in this assessment have been recommended by OEHHA (OEHHA 2015).

Non-cancer health risks (chronic and acute) are characterized by comparing the exposure to a concentration at or below a level where adverse effects are not likely to occur following specified exposure conditions. These concentrations or doses are called Reference Exposure Levels (RELs). As stated in the OEHHA guidance, it should be emphasized that exceeding the REL does not necessarily indicate that an adverse health effect will occur. Unlike cancer health effects, non-cancer health effects are generally assumed to have thresholds for adverse effects. In other words, injury from a pollutant will not occur until exposure to that pollutant has reached or exceeded a certain concentration (i.e., threshold). RELs take into account the exposure of sensitive populations and are thus intended to be health protective. A Chronic REL is a level above which prolonged exposure may have an adverse health effect. An Acute REL is a level set above the level at which short-term exposure may have an adverse health effect. The Hazard Quotient (HQ) for a substance is calculated as the exposure concentration divided by the REL.

6.2.2.3 Risk Characterization

Risk characterization is the final step of risk assessment. In this step, modeled concentrations and exposure information, which are determined through the exposure assessment, are combined with potency factors and RELs that are developed through the dose-response assessment (OEHHA 2015). In this assessment, the health risk characterization process involves integrating the exposure and the cancer potency factors to estimate two levels of potential health effects: carcinogenic and non-carcinogenic. The following sections present the approach to calculating carcinogenic and non0173carcinogenic risks in this assessment.

a. Carcinogenic Risk Characterization Methodology

Carcinogenic risk characterization assumed that chemicals causing cancer do not have a threshold (i.e., a carcinogen produces a risk of causing cancer at any level of exposure). It should be noted that people are exposed to numerous chemicals from natural and artificial sources, and this background exposure may exceed the risk threshold considered to be acceptable for a particular cancer-causing

mechanism. Moreover, some people may be more susceptible to cancer than others, which means that background levels of exposure may already exceed the risk threshold values for those individuals and not for others that are equally exposed. Therefore, this assessment focuses on the incremental potential cancer risk associated with exposure to emissions and does not account for natural background or individual habits.

In assessing the carcinogenic effects resulting from exposures to environmental contaminants, the lifetime excess cancer risk, which is considered to be the risk of developing cancer above the background risk level, is calculated using the following equation:

Inhalation Dose (mg/kg-day) x Cancer Potency (mg/kg-day)$^{-1}$ = Cancer Risk

Cancer risk is calculated by multiplying the inhalation dose by the inhalation cancer potency factor to yield the potential inhalation excess cancer risk. For residences, the cancer risk is expressed as the increased chance of contracting cancer during a 9-year, 30-year, and 70-year exposure period for the age ranges of 0-9, 0-30, and 0-70. Each of these age groups also include the third trimester of a fetus.

b. Non-carcinogenic Risk Characterization Methodology

In this analysis, non-carcinogenic impacts are evaluated for chronic exposure inhalation exposure. Estimates of health impacts from non-carcinogenic concentrations are expressed as a HQ for individual substances, such as diesel particulate. An HQ of one or less indicates that adverse health effects are not expected to result from exposure to emissions of that substance. Reference exposure levels are defined as the concentration at which no adverse health effects are anticipated. Generally, the inhalation pathway is the largest contributor to the total dose. The HQ is calculated with the flowing equation:

Ground-Level Concentration (µg/m^3)/Reference Exposure Level (µg/m^3) = Hazard Quotient

6.2.2.4 Risk Assessment Results

a. Cancer Risk

The highest individual excess cancer risk due to inhalation of DPM for the maximally exposed individual resident on the project site is 13.1 in a million for a 70-year exposure scenario. This point occurs south of the multi-family residential dwellings immediately adjacent to SR-905. The ground-level concentration of DPM at this point is 0.01626 µg/m^3. For the 30-year residential exposure scenario, the risk at this location is 11.1 in a million. For the 9-year child residential exposure scenario, the highest individual excess cancer risk is 7.93 in a million. Figure 4 shows the cancer risk isopleths. 2019 Title 24 requires the installation of minimum efficiency reporting value (MERV) 13 filters or greater. All units would be equipped with a heating, ventilation, and air conditioning unit with air filters capable of meeting MERV-13 or better. MERV-13 filters are capable of filtering particles ranging from 1.0 to 10.0 ppm in size by more than 90 percent (CARB 2017). Thus, with the provision of MERV-13 filters, the potential incremental increase in cancer risk would be reduced to less than 10 in a million and health risk impacts would be less than significant.

Image Source: Nearmap (flown April 2021)

Project Boundary Cancer Risk Isopleths

- 0.01 µg/m3
- 0.02 µg/m3
- 0.03 µg/m3
- 0.04 µg/m3
- 0.05 µg/m3

0 Feet 200

RECON

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FIGURE 4
Cancer Risk Isopleths

Based on studies conducted by the U.S. EPA, it is unlikely that an individual would reside in this location for the entire 70-year exposure period. Therefore, OEHHA recommends the excess cancer risk be based on a 30-year exposure, with the 9- and 70-year exposures provided for context. The risk at all other receptors is lower.

The following discussion of background risks is provided for informational purposes. CARB has estimated that the relative cancer risk attributable to diesel particulate emissions in California was estimated at 460 in a million for the year 2014, which represents a 68 percent drop in excess cancer risks since 1990 (CARB 2019). The reduction over time is primarily attributed to regulatory requirements and technological developments that have resulted in the reduction of toxics emitted in diesel exhaust. Based on the risk estimates, the project results of 11.1 in a million excess cancer risk for the maximally exposed individual resident in comparison with the background risks within San Diego County, this would contribute approximately 2.4 percent of the estimated existing risk to the overall cumulative risk predicted in San Diego County.

b. Non-Cancer Risk

Based on an annual ground level concentration of 0.01626 µg/m^3, the chronic non-cancer risk predicted at the project site was 0.0033. This is below the level of 1.0 at which adverse non-cancer health risks would be anticipated, and health risk impacts would be less than significant.

6.3 Impact Analysis

1. Would the project obstruct or conflict with the implementation of the San Diego RAQS?

The RAQS is the applicable regional air quality plan that sets forth the SDAPCD's strategies for achieving the NAAQS and CAAQS. The SDAB is designated non-attainment for the federal and state ozone standard. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the standards for ozone. The two pollutants addressed in the RAQS are ROG and NO_X, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions and by extension to maintaining and improving air quality. The RAQS, in conjunction with the TCM, were most recently adopted in 2016 as the air quality plan for the region.

The growth projections used by the SDAPCD to develop the RAQS emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by SANDAG in the development of the regional transportation plans and sustainable communities strategy. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the general plan would not conflict with the RAQS. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area.

As discussed in Section 2.1, the project would require a CPA to redesignate the site from Community Commercial – Residential Prohibited to Residential Medium (15-29 dwelling units per acre). Although the site was approved for the construction of a 45,000-square-foot retail use in 2019, the RAQS was last updated in 2016 and is therefore based on the Otay Mesa CPU land use designation for the project site. According to the Otay Mesa CPU, the Community Commercial designation allows for shopping areas with retail, service, civic, and office uses with a floor area ratio of 0.3. Therefore, an approximately 58,800-square-foot retail use could have been constructed under the previously adopted land use designation. Neighborhood shopping centers generate 72 cumulative trips and 120 driveway trips per 1,000 square feet (City of San Diego 2003). Therefore, a 58,800-square-foot retail use would generate 4,234 daily cumulative trips and 7,056 daily driveway trips. The currently approved 45,000-square-foot retail use would be incorporated into the next revision of the RAQS, without approval of the currently proposed project. A 45,000-square-foot retail use would generate 3,240 daily cumulative trips and 5,400 daily driveway trips. Under either scenario, the daily trips associated with a retail would are significantly greater than the 632 daily trips generated by the project. Therefore, the project would generate less emissions than the adopted land use designation upon which the current RAQS is based, and it can be concluded that the project would not obstruct or conflict with the implementation of the RAQS.

2. *Would the project result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

As shown in Table 4, project construction would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project construction emissions would be well below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations; therefore, the project would result in a less than significant impact.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 5, project operation would not exceed the applicable regional emissions thresholds. Therefore, as project operation emissions would be well below these limits, project operation would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Therefore, the project would result in a less than significant impact.

As discussed in Section 2.2, the Otay Mesa CPU FEIR prepared for the Otay Mesa CPU provides mitigation framework for projects that would result in emissions that exceed the applicable thresholds (AQ-1 and AQ-2). However, as shown in Tables 4 and 5, emissions would be less than the applicable thresholds for all criteria pollutants, and mitigation would not be required.

3. *Would the project expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates?*

Sensitive land uses include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. Sensitive receptors near the project site include residential uses to the south, north, and west, and a school to the southwest. Additionally, residential uses are currently being constructed on Lot 1 to the east.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hot spots have the potential to violate state and federal CO standards at intersections, even if the broader basin is in attainment for federal and state levels. The California Department of Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) screening procedures have been utilized to determine if the project could potentially result in a CO hot spot (U.C. Davis Institute of Transportation Studies 1997). As indicated by the CO Protocol, CO hot spots occur nearly exclusively at signalized intersections operating at level of service (LOS) E or F. Accordingly, the CO Protocol recommends detailed air quality dispersion modeling for projects that may worsen traffic flow at any signalized intersections operating at LOS E or F.

Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, more recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010 which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. This analysis conservatively assesses potential CO hot spots using the South Coast Air Quality Management District screening threshold of 31,600 vehicles per hour.

Based on the Traffic Impact Analysis prepared for the previous 2019 project (LOS Engineering, Inc. 2019), in horizon year 2062 with the project, the intersection of Ocean View Hills Parkway at Otay Mesa Road is anticipated to operate at LOS E in the PM peak hour, and the intersection of Caliente Avenue at the SR-905 westbound ramp is anticipated to operate at LOS F in the PM peak hour. However, the traffic volumes at these intersections would be well less than 31,600 vehicles per hour. All other signalized intersections are projected to operate at LOS D or better. The project would generate less traffic than the previous 2019 project, thus, peak hour volumes would be less than those analyzed in the previous Traffic Impact Analysis. Therefore, the project is not anticipated to result in a CO hot spot, and impacts would be less than significant.

Diesel Particulate Matter – Construction

Construction of the project and associated infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the project would result in the generation of diesel-exhaust DPM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction is anticipated to last for approximately one year. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a

Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor were one year, the exposure would be 3 percent of the total exposure period used for health risk calculation.

Therefore, DPM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Additionally, with ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels; off-road diesel engine retrofits; and new, low-emission diesel engine types, the DPM emissions of individual equipment would be substantially reduced over the years as the project construction continues. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentration.

Diesel Particulate Matter – Freeway

As discussed in Section 6.2.2, a health risk assessment was prepared as a part of the Otay Mesa CPU FEIR. However, the project site was designated as a commercial use under the Otay Mesa CPU, and the residential risk was not analyzed at the site. The residential uses at the southern portion of the project site would be located within 500 feet of SR-905. A site-specific health risk assessment was prepared for the project site. The project-level health risk assessment conducted in this analysis was based on assumptions regarding emissions from diesel-fueled truck traffic on SR-905. To provide an estimate of emissions to estimate a 9-year, 30-year, and 70-year exposure scenarios, emission rates were calculated from the EMFAC2014 model.

Based on the predicted ground level concentrations, the excess cancer risk would be approximately 11.1 in a million for the maximally exposed resident, and the non-cancer chronic risk would be less than health hazard index. CARB's position is that infill development, mixed-use, higher-density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level. Additionally, measures have been incorporated into the project design that would reduce the level of exposure for future residents. The CAPCOA published a guidance document, *Health Risk Assessments for Proposed Land Use Projects*, which provides recommended measures that reduce concentrations of DPM (CAPCOA 2009). These include planting vegetation between the receptor and the freeway, constructing barriers between the receptor and the freeway, and installing newer electrostatic filters in adjacent receptor buildings. Additionally, the 2019 California Building Code – Title 24 requires that all new residential uses include improved air filtration systems. Filters are categorized according to MERV rating. The higher the MERV rating, the better the filtration. MERV-13 filters are effective at filtering DPM. 2019 Title 24 requires the installation of MERV-13 filters or greater. All units would be equipped with a heating, ventilation, and air conditioning unit with air filters capable of meeting MERV-13 or better. MERV-13 filters are capable of filtering particles ranging from 1.0 to 10.0 ppm in size by more than 90 percent (CARB 2017). Thus, with the provision of MERV-13 filters, the potential incremental increase in cancer risk would be reduced to less than significant.

Stationary Sources

CARB provides guidance on siting land uses near major emitters or facilities of concern. These facilities include distribution centers, chrome platers, dry cleaners using perchloroethylene, and large gas stations. CARB siting constraints are summarized in Table 6.

As discussed in Section 2.2, the Otay Mesa CPU FEIR prepared for the Otay Mesa CPU provides mitigation framework for projects that would include or site a sensitive receptor within the buffer distances of one of these stationary sources of toxic emissions (AQ-3 and AQ-4).

The project site is not located in the vicinity of the sources included in Table 6. The project proposes residential and commercial uses, and the commercial use would be a neighborhood shopping center consisting of uses such as a small grocery store and coffee shop. The project would not construct a stationary source of toxic emissions, and mitigation measures AQ-3 and AQ-4 would not apply.

Table 6
CARB Land Use Siting Constraints

Source Category	Recommended Buffer Distances (feet)
Distribution centers (that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week)	1,000
Chrome platers	1,000
Dry cleaners using perchloroethylene (1 machine)	300
Dry cleaners using perchloroethylene (2 machines)	500
Dry cleaners using perchloroethylene (3 or more machines)	Requires consultation with APCD
Large gas station (3.6 million gallons or more per year)	300
Other gas stations	50

SOURCE: CARB 2005.

4. Would the project create objectionable odors affecting a substantial number of people?

The project does not include heavy industrial or agricultural uses that are typically associated with odor complaints. During construction, diesel equipment may generate some nuisance odors. Sensitive receptors near the project site include seniors within the existing retirement community; however, exposure to odors associated with project construction would be short term and temporary in nature. Impacts would be less than significant.

5. Would the project exceed 100 pounds per day of particulate matter (dust)?

As shown in Tables 4 and 5, emissions of PM_{10} during construction and operation of the project would be less than 100 pounds per day. Standard dust control measures would be implemented as a part of project construction. Impacts would be less than significant.

6. Would the project result in substantial alteration of air movement in the area?

Local topographic variation such as that caused by the height and shape of a row of buildings can influence air movement in a given location (Boston Redevelopment Authority 1986). Alterations in the built environment may increase the dispersion of air pollutants or cause stagnation that may result in a harmful concentration of air pollutants. Urban canyons are places where the street is flanked by buildings on both sides creating a canyon-like environment. Where urban canyons are oriented perpendicular to the prevailing wind patterns, the likelihood of restricted air movement and associated pollutant accumulation may increase.

Roadways in the vicinity of the project include SR-905, Otay Mesa Road, and Caliente Avenue. Vacant parcels are located to the south, east, and west of the project site. Development is not dense enough to form an urban canyon, and buildings do not form contiguous or near contiguous frontage. The project is not anticipated to contribute to a substantial alteration of air movement that would affect air quality, and impacts would be less than significant.

7.0 Conclusions

The primary goal of the RAQS is to reduce ozone precursor emissions. The project site is designated as Commercial Employment, Retail, and Services in the City's General Plan and as Community Commercial in the Otay Mesa Community Plan. The project would require a CPA to redesignate the site from Community Commercial – Residential Prohibited to Residential Medium (15-29 dwelling units per acre). However, the project would generate less emissions than the adopted land use designation upon which the current RAQS is based and would generate less emissions than the previously approved 2019 project. Thus, it can be concluded that the project would not obstruct or conflict with the implementation of the RAQS, and impacts associated with air quality plans would be less than significant.

As shown in Table 4, project construction emissions would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions would be well below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Additionally, construction emissions would be temporary, intermittent, and would cease at the end of project construction. Construction related impacts would be less than significant.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 5, project operational emissions would not exceed the applicable regional emissions thresholds. Therefore, as project emissions would be well below these limits, project operations would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Operational related impacts would be less than significant.

The site-specific health risk assessment was based on assumptions regarding emissions from diesel-fueled truck traffic on SR-905. Based on the predicted ground level concentrations, the excess cancer risk would be approximately 11.1 in a million for the maximally exposed resident, and the non-cancer chronic risk would be less than the health hazard index. However, in accordance with the 2019

California Building Code – Title 24, the project would include MERV-13 filters. All units would be equipped with a heating, ventilation, and air conditioning unit with air filters capable of meeting MERV-13 or better. MERV-13 filters are capable of filtering particles ranging from 1.0 to 10.0 ppm in size by more than 90 percent (CARB 2017). Thus, with the provision of MERV-13 filters, the potential incremental increase in cancer risk would be reduced to less than significant. It should be noted that the variability in parameters such as absorption rates, breathing rates, body weight, and frequency of exposure exists even in a narrowly defined age group or sensitive receptor subpopulation. This creates a level of uncertainty in calculating exposures and associated risks for individuals within a particular receptor population that presumably would receive the same intake doses. Thus, for this analysis the OEHHA standard default factors, which represent the upper limit of these exposure parameters, generally overestimate risks. Thus, the risks reported represent an upper-bound of estimated risk and are considered conservative.

The project does not include heavy industrial or agricultural uses that are typically associated with objectionable odors. The project would involve the use of diesel-powered construction equipment. Diesel exhaust may be noticeable temporarily at adjacent properties; however, construction activities would be temporary. Therefore, odor impacts would be less than significant.

The project would not result in the generation of 100 pounds per day or more of particulate matter. Standard dust control measures would be implemented as a part of project construction. Particulate matter impacts would be less than significant.

Vacant parcels are located south, east, and west of the project site. Development is not dense enough to form an urban canyon, and buildings do not form contiguous or near contiguous frontage. The project is not anticipated to contribute to a substantial alteration of air movement that would affect air quality. Impacts would be less than significant.

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ATTACHMENTS

ATTACHMENT 1

CalEEMod Output – Project Emissions

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4135.1 PA-61 Lot 1

San Diego County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	79.00	Dwelling Unit	4.50	79,000.00	226

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 79 units, 4.5 acres

Construction Phase -

Architectural Coating - SDAPCD Rule 67.0.1

Vehicle Trips - 8 trips/du

Woodstoves - No woodstoves or fireplaces

Area Coating - SDAPCD Rule 67.0.1

Mobile Land Use Mitigation -

Area Mitigation -

Grading -

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	43.45	0.00
tblFireplaces	NumberNoFireplace	7.90	79.00
tblFireplaces	NumberWood	27.65	0.00
tblGrading	MaterialImported	0.00	2,600.00
tblLandUse	LotAcreage	2.08	4.50
tblVehicleTrips	ST_TR	4.91	8.00
tblVehicleTrips	SU_TR	4.09	8.00
tblVehicleTrips	WD_TR	5.44	8.00
tblWoodstoves	NumberCatalytic	3.95	0.00
tblWoodstoves	NumberNoncatalytic	3.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2270	33.1220	20.1397	0.0562	19.8049	1.6134	21.4183	10.1417	1.4843	11.6260	0.0000	5,787.0812	5,787.0812	1.1963	0.4492	5,947.6237
2023	62.0146	8.8285	12.6465	0.0203	0.1643	0.4365	0.6008	0.0436	0.4033	0.4469	0.0000	1,944.0982	1,944.0982	0.5715	3.9600e-003	1,959.5648
Maximum	**62.0146**	**33.1220**	**20.1397**	**0.0562**	**19.8049**	**1.6134**	**21.4183**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**5,787.0812**	**5,787.0812**	**1.1963**	**0.4492**	**5,947.6237**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2270	33.1220	20.1397	0.0562	19.8049	1.6134	21.4183	10.1417	1.4843	11.6260	0.0000	5,787.0812	5,787.0812	1.1963	0.4492	5,947.6237
2023	62.0146	8.8285	12.6465	0.0203	0.1643	0.4365	0.6008	0.0436	0.4033	0.4469	0.0000	1,944.0982	1,944.0982	0.5715	3.9600e-003	1,959.5648
Maximum	**62.0146**	**33.1220**	**20.1397**	**0.0562**	**19.8049**	**1.6134**	**21.4183**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**5,787.0812**	**5,787.0812**	**1.1963**	**0.4492**	**5,947.6237**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Energy	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Mobile	1.8598	2.1341	17.5314	0.0357	3.7988	0.0283	3.8271	1.0120	0.0264	1.0383		3,635.9501	3,635.9501	0.2682	0.1694	3,693.1225
Total	**4.0685**	**2.3543**	**24.1122**	**0.0370**	**3.7988**	**0.0761**	**3.8749**	**1.0120**	**0.0742**	**1.0862**	**0.0000**	**3,832.9583**	**3,832.9583**	**0.2830**	**0.1728**	**3,891.5137**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Energy	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Mobile	1.8560	2.1272	17.4761	0.0356	3.7836	0.0282	3.8118	1.0079	0.0263	1.0342		3,621.7724	3,621.7724	0.2674	0.1688	3,678.7715
Total	**4.0647**	**2.3475**	**24.0569**	**0.0368**	**3.7836**	**0.0760**	**3.8596**	**1.0079**	**0.0741**	**1.0820**	**0.0000**	**3,818.7806**	**3,818.7806**	**0.2823**	**0.1722**	**3,877.1627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.09**	**0.29**	**0.23**	**0.38**	**0.40**	**0.13**	**0.39**	**0.40**	**0.12**	**0.38**	**0.00**	**0.37**	**0.37**	**0.26**	**0.30**	**0.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/7/2022	5	5	
2	Grading	Grading	1/8/2022	1/19/2022	5	8	
3	Building Construction	Building Construction	1/20/2022	12/7/2022	5	230	
4	Paving	Paving	12/8/2022	1/2/2023	5	18	
5	Architectural Coating	Architectural Coating	1/3/2023	1/26/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 159,975; Residential Outdoor: 53,325; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	57.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0568	0.0385	0.4419	1.2700e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		128.8704	128.8704	4.1900e-003	3.8300e-003	130.1159
Total	**0.0568**	**0.0385**	**0.4419**	**1.2700e-003**	**0.1479**	**8.4000e-004**	**0.1487**	**0.0392**	**7.7000e-004**	**0.0400**		**128.8704**	**128.8704**	**4.1900e-003**	**3.8300e-003**	**130.1159**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0568	0.0385	0.4419	1.2700e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		128.8704	128.8704	4.1900e-003	3.8300e-003	130.1159
Total	**0.0568**	**0.0385**	**0.4419**	**1.2700e-003**	**0.1479**	**8.4000e-004**	**0.1487**	**0.0392**	**7.7000e-004**	**0.0400**		**128.8704**	**128.8704**	**4.1900e-003**	**3.8300e-003**	**130.1159**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1283	0.0000	7.1283	3.4317	0.0000	3.4317			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.1283**	**0.9409**	**8.0691**	**3.4317**	**0.8656**	**4.2972**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1774	6.8457	1.6282	0.0255	0.7105	0.0637	0.7742	0.1948	0.0609	0.2557		2,807.6428	2,807.6428	0.1347	0.4460	2,943.9255
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0474	0.0321	0.3682	1.0600e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		107.3920	107.3920	3.4900e-003	3.1900e-003	108.4299
Total	**0.2247**	**6.8777**	**1.9965**	**0.0266**	**0.8337**	**0.0644**	**0.8981**	**0.2274**	**0.0616**	**0.2890**		**2,915.0348**	**2,915.0348**	**0.1382**	**0.4492**	**3,052.3554**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1283	0.0000	7.1283	3.4317	0.0000	3.4317			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.1283**	**0.9409**	**8.0691**	**3.4317**	**0.8656**	**4.2972**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1774	6.8457	1.6282	0.0255	0.7105	0.0637	0.7742	0.1948	0.0609	0.2557		2,807.6428	2,807.6428	0.1347	0.4460	2,943.9255
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0474	0.0321	0.3682	1.0600e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		107.3920	107.3920	3.4900e-003	3.1900e-003	108.4299
Total	**0.2247**	**6.8777**	**1.9965**	**0.0266**	**0.8337**	**0.0644**	**0.8981**	**0.2274**	**0.0616**	**0.2890**		**2,915.0348**	**2,915.0348**	**0.1382**	**0.4492**	**3,052.3554**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.4415	0.1467	1.7100e-003	0.0542	4.6400e-003	0.0588	0.0156	4.4400e-003	0.0200		183.9549	183.9549	5.5700e-003	0.0267	192.0582
Worker	0.1799	0.1218	1.3993	4.0400e-003	0.4682	2.6500e-003	0.4709	0.1242	2.4400e-003	0.1266		408.0894	408.0894	0.0133	0.0121	412.0336
Total	**0.1976**	**0.5633**	**1.5460**	**5.7500e-003**	**0.5224**	**7.2900e-003**	**0.5297**	**0.1398**	**6.8800e-003**	**0.1467**		**592.0443**	**592.0443**	**0.0188**	**0.0389**	**604.0918**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0177	0.4415	0.1467	1.7100e-003	0.0542	4.6400e-003	0.0588	0.0156	4.4400e-003	0.0200		183.9549	183.9549	5.5700e-003	0.0267	192.0582
Worker	0.1799	0.1218	1.3993	4.0400e-003	0.4682	2.6500e-003	0.4709	0.1242	2.4400e-003	0.1266		408.0894	408.0894	0.0133	0.0121	412.0336
Total	**0.1976**	**0.5633**	**1.5460**	**5.7500e-003**	**0.5224**	**7.2900e-003**	**0.5297**	**0.1398**	**6.8800e-003**	**0.1467**		**592.0443**	**592.0443**	**0.0188**	**0.0389**	**604.0918**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0631	0.0427	0.4910	1.4200e-003	0.1643	9.3000e-004	0.1652	0.0436	8.6000e-004	0.0444		143.1893	143.1893	4.6500e-003	4.2500e-003	144.5732
Total	**0.0631**	**0.0427**	**0.4910**	**1.4200e-003**	**0.1643**	**9.3000e-004**	**0.1652**	**0.0436**	**8.6000e-004**	**0.0444**		**143.1893**	**143.1893**	**4.6500e-003**	**4.2500e-003**	**144.5732**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0631	0.0427	0.4910	1.4200e-003	0.1643	9.3000e-004	0.1652	0.0436	8.6000e-004	0.0444		143.1893	143.1893	4.6500e-003	4.2500e-003	144.5732
Total	**0.0631**	**0.0427**	**0.4910**	**1.4200e-003**	**0.1643**	**9.3000e-004**	**0.1652**	**0.0436**	**8.6000e-004**	**0.0444**		**143.1893**	**143.1893**	**4.6500e-003**	**4.2500e-003**	**144.5732**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0593	0.0382	0.4561	1.3700e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		138.6678	138.6678	4.2400e-003	3.9600e-003	139.9526
Total	**0.0593**	**0.0382**	**0.4561**	**1.3700e-003**	**0.1643**	**8.8000e-004**	**0.1652**	**0.0436**	**8.1000e-004**	**0.0444**		**138.6678**	**138.6678**	**4.2400e-003**	**3.9600e-003**	**139.9526**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0593	0.0382	0.4561	1.3700e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		138.6678	138.6678	4.2400e-003	3.9600e-003	139.9526
Total	**0.0593**	**0.0382**	**0.4561**	**1.3700e-003**	**0.1643**	**8.8000e-004**	**0.1652**	**0.0436**	**8.1000e-004**	**0.0444**		**138.6678**	**138.6678**	**4.2400e-003**	**3.9600e-003**	**139.9526**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	61.7903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**61.9820**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0326	0.0210	0.2509	7.5000e-004	0.0904	4.8000e-004	0.0909	0.0240	4.5000e-004	0.0244		76.2673	76.2673	2.3300e-003	2.1800e-003	76.9739
Total	**0.0326**	**0.0210**	**0.2509**	**7.5000e-004**	**0.0904**	**4.8000e-004**	**0.0909**	**0.0240**	**4.5000e-004**	**0.0244**		**76.2673**	**76.2673**	**2.3300e-003**	**2.1800e-003**	**76.9739**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	61.7903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**61.9820**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0326	0.0210	0.2509	7.5000e-004	0.0904	4.8000e-004	0.0909	0.0240	4.5000e-004	0.0244		76.2673	76.2673	2.3300e-003	2.1800e-003	76.9739
Total	**0.0326**	**0.0210**	**0.2509**	**7.5000e-004**	**0.0904**	**4.8000e-004**	**0.0909**	**0.0240**	**4.5000e-004**	**0.0244**		**76.2673**	**76.2673**	**2.3300e-003**	**2.1800e-003**	**76.9739**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8560	2.1272	17.4761	0.0356	3.7836	0.0282	3.8118	1.0079	0.0263	1.0342		3,621.7724	3,621.7724	0.2674	0.1688	3,678.7715
Unmitigated	1.8598	2.1341	17.5314	0.0357	3.7988	0.0283	3.8271	1.0120	0.0264	1.0383		3,635.9501	3,635.9501	0.2682	0.1694	3,693.1225

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	632.00	632.00	632.00	1,804,552	1,797,334
Total	632.00	632.00	632.00	1,804,552	1,797,334

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
NaturalGas Unmitigated	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1574.82	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Total		**0.0170**	**0.1451**	**0.0618**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**185.2725**	**185.2725**	**3.5500e-003**	**3.4000e-003**	**186.3735**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.57482	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Total		**0.0170**	**0.1451**	**0.0618**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**185.2725**	**185.2725**	**3.5500e-003**	**3.4000e-003**	**186.3735**

6.0 Area Detail

6.1 Mitigation Measures Area

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Unmitigated	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1964	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361		11.7356	11.7356	0.0113		12.0178
Total	**2.1917**	**0.0752**	**6.5191**	**3.4000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**0.0000**	**11.7356**	**11.7356**	**0.0113**	**0.0000**	**12.0178**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1964	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361		11.7356	11.7356	0.0113		12.0178
Total	**2.1917**	**0.0752**	**6.5191**	**3.4000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**0.0000**	**11.7356**	**11.7356**	**0.0113**	**0.0000**	**12.0178**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4135.1 PA-61 Lot 1

San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	79.00	Dwelling Unit	4.50	79,000.00	226

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 79 units, 4.5 acres

Construction Phase -

Architectural Coating - SDAPCD Rule 67.0.1

Vehicle Trips - 8 trips/du

Woodstoves - No woodstoves or fireplaces

Area Coating - SDAPCD Rule 67.0.1

Mobile Land Use Mitigation -

Area Mitigation -

Grading -

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	43.45	0.00
tblFireplaces	NumberNoFireplace	7.90	79.00
tblFireplaces	NumberWood	27.65	0.00
tblGrading	MaterialImported	0.00	2,600.00
tblLandUse	LotAcreage	2.08	4.50
tblVehicleTrips	ST_TR	4.91	8.00
tblVehicleTrips	SU_TR	4.09	8.00
tblVehicleTrips	WD_TR	5.44	8.00
tblWoodstoves	NumberCatalytic	3.95	0.00
tblWoodstoves	NumberNoncatalytic	3.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2227	33.1177	20.1638	0.0563	19.8049	1.6134	21.4183	10.1417	1.4843	11.6260	0.0000	5,792.1570	5,792.1570	1.1961	0.4488	5,952.5669
2023	62.0121	8.8242	12.6704	0.0204	0.1643	0.4365	0.6008	0.0436	0.4033	0.4469	0.0000	1,952.1632	1,952.1632	0.5713	3.6600e-003	1,967.5345
Maximum	**62.0121**	**33.1177**	**20.1638**	**0.0563**	**19.8049**	**1.6134**	**21.4183**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**5,792.1570**	**5,792.1570**	**1.1961**	**0.4488**	**5,952.5669**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2227	33.1177	20.1638	0.0563	19.8049	1.6134	21.4183	10.1417	1.4843	11.6260	0.0000	5,792.1570	5,792.1570	1.1961	0.4488	5,952.5669
2023	62.0121	8.8242	12.6704	0.0204	0.1643	0.4365	0.6008	0.0436	0.4033	0.4469	0.0000	1,952.1632	1,952.1632	0.5713	3.6600e-003	1,967.5345
Maximum	**62.0121**	**33.1177**	**20.1638**	**0.0563**	**19.8049**	**1.6134**	**21.4183**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**5,792.1570**	**5,792.1570**	**1.1961**	**0.4488**	**5,952.5669**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Energy	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Mobile	1.8993	1.9680	17.1394	0.0373	3.7988	0.0283	3.8271	1.0120	0.0264	1.0383		3,801.5586	3,801.5586	0.2534	0.1606	3,855.7487
Total	**4.1080**	**2.1882**	**23.7203**	**0.0386**	**3.7988**	**0.0761**	**3.8749**	**1.0120**	**0.0742**	**1.0861**	**0.0000**	**3,998.5667**	**3,998.5667**	**0.2682**	**0.1640**	**4,054.1400**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Energy	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Mobile	1.8956	1.9616	17.0825	0.0372	3.7836	0.0282	3.8118	1.0079	0.0263	1.0342		3,786.7116	3,786.7116	0.2526	0.1601	3,840.7351
Total	**4.1043**	**2.1819**	**23.6633**	**0.0385**	**3.7836**	**0.0760**	**3.8596**	**1.0079**	**0.0741**	**1.0820**	**0.0000**	**3,983.7197**	**3,983.7197**	**0.2675**	**0.1635**	**4,039.1263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.09**	**0.29**	**0.24**	**0.39**	**0.40**	**0.13**	**0.39**	**0.40**	**0.13**	**0.38**	**0.00**	**0.37**	**0.37**	**0.27**	**0.30**	**0.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/7/2022	5	5	
2	Grading	Grading	1/8/2022	1/19/2022	5	8	
3	Building Construction	Building Construction	1/20/2022	12/7/2022	5	230	
4	Paving	Paving	12/8/2022	1/2/2023	5	18	
5	Architectural Coating	Architectural Coating	1/3/2023	1/26/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 159,975; Residential Outdoor: 53,325; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	57.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0342	0.4661	1.3500e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		136.3874	136.3874	3.9400e-003	3.5400e-003	137.5405
Total	**0.0525**	**0.0342**	**0.4661**	**1.3500e-003**	**0.1479**	**8.4000e-004**	**0.1487**	**0.0392**	**7.7000e-004**	**0.0400**		**136.3874**	**136.3874**	**3.9400e-003**	**3.5400e-003**	**137.5405**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0525	0.0342	0.4661	1.3500e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		136.3874	136.3874	3.9400e-003	3.5400e-003	137.5405
Total	**0.0525**	**0.0342**	**0.4661**	**1.3500e-003**	**0.1479**	**8.4000e-004**	**0.1487**	**0.0392**	**7.7000e-004**	**0.0400**		**136.3874**	**136.3874**	**3.9400e-003**	**3.5400e-003**	**137.5405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1283	0.0000	7.1283	3.4317	0.0000	3.4317			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.1283**	**0.9409**	**8.0691**	**3.4317**	**0.8656**	**4.2972**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1821	6.5980	1.6038	0.0255	0.7105	0.0636	0.7741	0.1948	0.0608	0.2556		2,806.4544	2,806.4544	0.1350	0.4458	2,942.6814
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0438	0.0285	0.3884	1.1200e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		113.6562	113.6562	3.2800e-003	2.9500e-003	114.6171
Total	**0.2258**	**6.6265**	**1.9922**	**0.0266**	**0.8337**	**0.0643**	**0.8980**	**0.2274**	**0.0615**	**0.2889**		**2,920.1106**	**2,920.1106**	**0.1383**	**0.4488**	**3,057.2985**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1283	0.0000	7.1283	3.4317	0.0000	3.4317			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.1283**	**0.9409**	**8.0691**	**3.4317**	**0.8656**	**4.2972**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1821	6.5980	1.6038	0.0255	0.7105	0.0636	0.7741	0.1948	0.0608	0.2556		2,806.4544	2,806.4544	0.1350	0.4458	2,942.6814
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0438	0.0285	0.3884	1.1200e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		113.6562	113.6562	3.2800e-003	2.9500e-003	114.6171
Total	**0.2258**	**6.6265**	**1.9922**	**0.0266**	**0.8337**	**0.0643**	**0.8980**	**0.2274**	**0.0615**	**0.2889**		**2,920.1106**	**2,920.1106**	**0.1383**	**0.4488**	**3,057.2985**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0178	0.4255	0.1423	1.7100e-003	0.0542	4.6300e-003	0.0588	0.0156	4.4200e-003	0.0200		183.8605	183.8605	5.5900e-003	0.0267	191.9531
Worker	0.1664	0.1083	1.4759	4.2700e-003	0.4682	2.6500e-003	0.4709	0.1242	2.4400e-003	0.1266		431.8935	431.8935	0.0125	0.0112	435.5450
Total	**0.1842**	**0.5337**	**1.6182**	**5.9800e-003**	**0.5224**	**7.2800e-003**	**0.5297**	**0.1398**	**6.8600e-003**	**0.1467**		**615.7540**	**615.7540**	**0.0181**	**0.0379**	**627.4981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0178	0.4255	0.1423	1.7100e-003	0.0542	4.6300e-003	0.0588	0.0156	4.4200e-003	0.0200		183.8605	183.8605	5.5900e-003	0.0267	191.9531
Worker	0.1664	0.1083	1.4759	4.2700e-003	0.4682	2.6500e-003	0.4709	0.1242	2.4400e-003	0.1266		431.8935	431.8935	0.0125	0.0112	435.5450
Total	**0.1842**	**0.5337**	**1.6182**	**5.9800e-003**	**0.5224**	**7.2800e-003**	**0.5297**	**0.1398**	**6.8600e-003**	**0.1467**		**615.7540**	**615.7540**	**0.0181**	**0.0379**	**627.4981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0584	0.0380	0.5179	1.5000e-003	0.1643	9.3000e-004	0.1652	0.0436	8.6000e-004	0.0444		151.5416	151.5416	4.3800e-003	3.9300e-003	152.8228
Total	**0.0584**	**0.0380**	**0.5179**	**1.5000e-003**	**0.1643**	**9.3000e-004**	**0.1652**	**0.0436**	**8.6000e-004**	**0.0444**		**151.5416**	**151.5416**	**4.3800e-003**	**3.9300e-003**	**152.8228**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0584	0.0380	0.5179	1.5000e-003	0.1643	9.3000e-004	0.1652	0.0436	8.6000e-004	0.0444		151.5416	151.5416	4.3800e-003	3.9300e-003	152.8228
Total	**0.0584**	**0.0380**	**0.5179**	**1.5000e-003**	**0.1643**	**9.3000e-004**	**0.1652**	**0.0436**	**8.6000e-004**	**0.0444**		**151.5416**	**151.5416**	**4.3800e-003**	**3.9300e-003**	**152.8228**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0547	0.0339	0.4800	1.4500e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		146.7328	146.7328	3.9800e-003	3.6600e-003	147.9223
Total	**0.0547**	**0.0339**	**0.4800**	**1.4500e-003**	**0.1643**	**8.8000e-004**	**0.1652**	**0.0436**	**8.1000e-004**	**0.0444**		**146.7328**	**146.7328**	**3.9800e-003**	**3.6600e-003**	**147.9223**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0547	0.0339	0.4800	1.4500e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		146.7328	146.7328	3.9800e-003	3.6600e-003	147.9223
Total	**0.0547**	**0.0339**	**0.4800**	**1.4500e-003**	**0.1643**	**8.8000e-004**	**0.1652**	**0.0436**	**8.1000e-004**	**0.0444**		**146.7328**	**146.7328**	**3.9800e-003**	**3.6600e-003**	**147.9223**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	61.7903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**61.9820**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0187	0.2640	8.0000e-004	0.0904	4.8000e-004	0.0909	0.0240	4.5000e-004	0.0244		80.7030	80.7030	2.1900e-003	2.0100e-003	81.3572
Total	**0.0301**	**0.0187**	**0.2640**	**8.0000e-004**	**0.0904**	**4.8000e-004**	**0.0909**	**0.0240**	**4.5000e-004**	**0.0244**		**80.7030**	**80.7030**	**2.1900e-003**	**2.0100e-003**	**81.3572**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	61.7903					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**61.9820**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0187	0.2640	8.0000e-004	0.0904	4.8000e-004	0.0909	0.0240	4.5000e-004	0.0244		80.7030	80.7030	2.1900e-003	2.0100e-003	81.3572
Total	**0.0301**	**0.0187**	**0.2640**	**8.0000e-004**	**0.0904**	**4.8000e-004**	**0.0909**	**0.0240**	**4.5000e-004**	**0.0244**		**80.7030**	**80.7030**	**2.1900e-003**	**2.0100e-003**	**81.3572**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8956	1.9616	17.0825	0.0372	3.7836	0.0282	3.8118	1.0079	0.0263	1.0342		3,786.7116	3,786.7116	0.2526	0.1601	3,840.7351
Unmitigated	1.8993	1.9680	17.1394	0.0373	3.7988	0.0283	3.8271	1.0120	0.0264	1.0383		3,801.5586	3,801.5586	0.2534	0.1606	3,855.7487

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	632.00	632.00	632.00	1,804,552	1,797,334
Total	632.00	632.00	632.00	1,804,552	1,797,334

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
NaturalGas Unmitigated	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1574.82	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Total		**0.0170**	**0.1451**	**0.0618**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**185.2725**	**185.2725**	**3.5500e-003**	**3.4000e-003**	**186.3735**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.57482	0.0170	0.1451	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.2725	185.2725	3.5500e-003	3.4000e-003	186.3735
Total		**0.0170**	**0.1451**	**0.0618**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**185.2725**	**185.2725**	**3.5500e-003**	**3.4000e-003**	**186.3735**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178
Unmitigated	2.1917	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361	0.0000	11.7356	11.7356	0.0113	0.0000	12.0178

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1964	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361		11.7356	11.7356	0.0113		12.0178
Total	**2.1917**	**0.0752**	**6.5191**	**3.4000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**0.0000**	**11.7356**	**11.7356**	**0.0113**	**0.0000**	**12.0178**

4135.1 PA-61 Lot 1 - San Diego County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1964	0.0752	6.5191	3.4000e-004		0.0361	0.0361		0.0361	0.0361		11.7356	11.7356	0.0113		12.0178
Total	**2.1917**	**0.0752**	**6.5191**	**3.4000e-004**		**0.0361**	**0.0361**		**0.0361**	**0.0361**	**0.0000**	**11.7356**	**11.7356**	**0.0113**	**0.0000**	**12.0178**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT 2

Health Risk Assessment Calculations

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
SANDAG Traffic

SANDAG Series 14 Traffic Data	Traffic Year			
Segment	2016	2025	2035	2050
SR 905 WB	41,300	45,000	60,600	60,100
SR 905 WB Off-Ramp	500	1,300	2,900	5,100
SR 905 WB On-Ramp	5,400	8,400	10,700	11,500
SR 905 EB	43,900	46,800	59,900	58,100
SR 905 EB Off-Ramp	6,100	8,300	8,900	9,700
SR 905 EB On-Ramp	500	1,100	2,800	3,700
Total	97,700	110,900	145,800	148,200

Caltrans Truck Report			T1	T2 Trucks			T2 Total
Segment	Total	Trucks	2	3	4	5+	3+
SR-905 at I-805 B	67000	5427	2,811	847	168	1,601	2,616
SR-905 at I-805 A	100000	8027	3,570	584	258	3,615	4,457
Sum	167,000	13,454	6,383	1,434	430	5,216	7,073
Ratios	91.94%	8.06%	3.82%	0.0086	0.0026	0.0312	4.24%

SANDAG 2050 Series 14 Average	125,650	

CT-EMFAC	2023	2025	2035	2050	
DPM Emission	70.30	62.50	35.30	26.9	g/day
DPM Emission	0.0008137	0.00072	0.00041	0.00031	g/s
Average Emission Rate	0.0005642	g/s			

Volume Source Dimension	54.400	meters
Volume Source Dimension	165.8112	feet
Volume Source Dimension	0.0314	miles

File Name: San Diego (SD) - 2023 - Annual.EC
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:12
Area: San Diego (SD)
Analysis Year: 2023
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.613
Truck 2	0.042	0.95
Non-Truck	0.92	0.013

==========

Road Length:	0.0314	miles
Volume:	125,650	vehicles per hour
Number of Hours:	24	hours
Avg. Idling Time:	0	minutes per vehicle
Tot. Idling Time:	0	hours

VMT Distribution by Speed (mph):

5	0.00%
10	0.00%
15	0.00%
20	0.00%
25	0.00%
30	0.00%
35	0.00%
40	0.00%
45	0.00%
50	0.00%
55	100.00%
60	0.00%
65	0.00%
70	0.00%
75	0.00%

==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2023 EC

Summary of Project Emissions

Pollutant Name	Running Exhaust (grams)	Idling Exhaust (grams)		Running Loss (grams)		Tire Wear (grams)		Brake Wear (grams)		Total (grams)	Total (US tons)	
HC	2,797.70		0	2,357.30		-		-		5,155.00		0.006
ROG	2,245.00		0	2,520.30		-		-		4,765.30		0.005
TOG	3,090.80		0	2,520.30		-		-		5,611.10		0.006
CO	60,009.40		0	-		-		-		60,009.40		0.066
NOx	15,553.10		0	-		-		-		15,553.10		0.017
CO2	28,527,064.20		0	-		-		-		28,527,064.20		31.446
CH4	728.9		0	-		-		-		728.9		<0.001
PM10	179.1		0	-			838.1		4,000.90	5,018.10		0.006
PM2.5	167.2		0	-			209.5		1,714.60	2,091.40		0.002
Benzene	73		0		25.2	-		-		98.2		<0.001
Acrolein	3.4		0	-		-		-		3.4		<0.001
Acetaldehyde	43.4		0	-		-		-		43.4		<0.001
Formaldehyde	110.9		0	-		-		-		110.9		<0.001
Butadiene	15.5		0		0	-		-		15.5		<0.001
Naphthalene	2.1		0		3.5	-		-		5.6		<0.001
POM	3		0	-		-		-		3		<0.001
Diesel PM	70.3		0	-		-		-		70.3		<0.001
DEOG	437.9		0	-		-		-		437.9		<0.001

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2025 EC

File Name: San Diego (SD) - 2025 - Annual.EC
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:17
Area: San Diego (SD)
Analysis Year: 2025
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.633
Truck 2	0.042	0.949
Non-Truck	0.92	0.013

==========

Road Length:	0.0314	miles
Volume:	125,650	vehicles per hour
Number of Hours:	24	hours
Avg. Idling Time:	0	minutes per vehicle
Tot. Idling Time:	0	hours

VMT Distribution by Speed (mph):

5	0.00%
10	0.00%
15	0.00%
20	0.00%
25	0.00%
30	0.00%
35	0.00%
40	0.00%
45	0.00%
50	0.00%
55	100.00%
60	0.00%
65	0.00%
70	0.00%
75	0.00%

==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2025 EC

Summary of Project Emissions

Pollutant Name	Running Exhaust (grams)	Idling Exhaust (grams)		Running Loss (grams)		Tire Wear (grams)		Brake Wear (grams)		Total (grams)	Total (US tons)	
HC	2,523.10		0	2,175.30		-		-		4,698.40		0.005
ROG	2,028.70		0	2,325.70		-		-		4,354.50		0.005
TOG	2,786.80		0	2,325.70		-		-		5,112.50		0.006
CO	53,430.30		0	-		-		-		53,430.30		0.059
NOx	13,016.00		0	-		-		-		13,016.00		0.014
CO2	26,677,289.30		0	-		-		-		26,677,289.30		29.407
CH4	653		0	-		-		-		653		<0.001
PM10	169.4		0	-			838.2		3,996.20	5,003.80		0.006
PM2.5	158.1		0	-			209.5		1,712.70	2,080.30		0.002
Benzene	66.1		0		23.3	-		-		89.4		<0.001
Acrolein	3		0	-		-		-		3		<0.001
Acetaldehyde	39.5		0	-		-		-		39.5		<0.001
Formaldehyde	100.8		0	-		-		-		100.8		<0.001
Butadiene	14		0		0	-		-		14		<0.001
Naphthalene	1.9		0		3.3	-		-		5.1		<0.001
POM	2.7		0	-		-		-		2.7		<0.001
Diesel PM	62.5		0	-		-		-		62.5		<0.001
DEOG	398.8		0	-		-		-		398.8		<0.001

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2035 EC

File Name: San Diego (SD) - 2035 - Annual.EC
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:19
Area: San Diego (SD)
Analysis Year: 2035
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.684
Truck 2	0.042	0.95
Non-Truck	0.92	0.013

==========

Road Length:	0.0314	miles
Volume:	125,650	vehicles per hour
Number of Hours:	24	hours
Avg. Idling Time:	0	minutes per vehicle
Tot. Idling Time:	0	hours

VMT Distribution by Speed (mph):

5	0.00%
10	0.00%
15	0.00%
20	0.00%
25	0.00%
30	0.00%
35	0.00%
40	0.00%
45	0.00%
50	0.00%
55	100.00%
60	0.00%
65	0.00%
70	0.00%
75	0.00%

==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2035 EC

Summary of Project Emissions

Pollutant Name	Running Exhaust (grams)	Idling Exhaust (grams)		Running Loss (grams)		Tire Wear (grams)		Brake Wear (grams)		Total (grams)	Total (US tons)	
HC	1,965.90		0	1,328.60		-		-		3,294.40		0.004
ROG	1,584.30		0	1,420.40		-		-		3,004.70		0.003
TOG	2,162.00		0	1,420.40		-		-		3,582.40		0.004
CO	37,811.90		0	-		-		-		37,811.90		0.042
NOx	6,450.60		0	-		-		-		6,450.60		0.007
CO2	22,118,685.10		0	-		-		-		22,118,685.10		24.382
CH4	498.4		0	-		-		-		498.4		<0.001
PM10	92.8		0	-			838.6		3,983.10	4,914.50		0.005
PM2.5	86.6		0	-			209.6		1,707.10	2,003.40		0.002
Benzene	52.2		0		14.2	-		-		66.4		<0.001
Acrolein	2.5		0	-		-		-		2.5		<0.001
Acetaldehyde	29.4		0	-		-		-		29.4		<0.001
Formaldehyde	76		0	-		-		-		76		<0.001
Butadiene	11.2		0		0	-		-		11.2		<0.001
Naphthalene	1.5		0		2	-		-		3.5		<0.001
POM	1.9		0	-		-		-		1.9		<0.001
Diesel PM	35.3		0	-		-		-		35.3		<0.001
DEOG	284.6		0	-		-		-		284.6		<0.001

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2050 EC

File Name: San Diego (SD) - 2050 - Annual.EC
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:19
Area: San Diego (SD)
Analysis Year: 2050
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.698
Truck 2	0.042	0.955
Non-Truck	0.92	0.013

==========

Road Length:	0.0314	miles
Volume:	125,650	vehicles per hour
Number of Hours:	24	hours
Avg. Idling Time:	0	minutes per vehicle
Tot. Idling Time:	0	hours

VMT Distribution by Speed (mph):

5	0.00%
10	0.00%
15	0.00%
20	0.00%
25	0.00%
30	0.00%
35	0.00%
40	0.00%
45	0.00%
50	0.00%
55	100.00%
60	0.00%
65	0.00%
70	0.00%
75	0.00%

==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2050 EC

Summary of Project Emissions

Pollutant Name	Running Exhaust (grams)	Idling Exhaust (grams)		Running Loss (grams)		Tire Wear (grams)		Brake Wear (grams)		Total (grams)	Total (US tons)
HC	1,821.50		0		996	-		-		2,817.60	0.003
ROG	1,475.20		0		1,064.90	-		-		2,540.10	0.003
TOG	1,999.30		0		1,064.90	-		-		3,064.20	0.003
CO	33,465.00		0	-		-		-		33,465.00	0.037
NOx	4,511.80		0	-		-		-		4,511.80	0.005
CO2	21,229,786.00		0	-		-		-		21,229,786.00	23.402
CH4	451.7		0	-		-		-		451.7	<0.001
PM10	65.9		0	-			839		3,979.60	4,884.50	0.005
PM2.5	61.6		0	-			209.7		1,705.60	1,976.90	0.002
Benzene	48.7		0		10.6	-		-		59.3	<0.001
Acrolein	2.3		0	-		-		-		2.3	<0.001
Acetaldehyde	25.8		0	-		-		-		25.8	<0.001
Formaldehyde	67.8		0	-		-		-		67.8	<0.001
Butadiene	10.5		0		0	-		-		10.5	<0.001
Naphthalene	1.4		0		1.5	-		-		2.9	<0.001
POM	1.6		0	-		-		-		1.6	<0.001
Diesel PM	26.9		0	-		-		-		26.9	<0.001
DEOG	240.9		0	-		-		-		240.9	<0.001

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2023 EF

File Name: San Diego (SD) - 2023 - Annual.EF
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:11
Area: San Diego (SD)
Analysis Year: 2023
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.613
Truck 2	0.042	0.95
Non-Truck	0.92	0.013

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
HC	0.268749	0.179813	0.118128	0.081057	0.060399	0.047504	0.039119	0.03378	0.030656	0.029302	0.029546	0.031574	0.035627	0.038647	0.038647
ROG	0.209371	0.139837	0.092832	0.064427	0.048107	0.037873	0.031237	0.027025	0.024567	0.023508	0.023709	0.025343	0.028615	0.031009	0.031009
TOG	0.300936	0.202381	0.132678	0.09074	0.067548	0.053078	0.043637	0.037599	0.034037	0.03245	0.032641	0.034838	0.039283	0.042599	0.042599
CO	1.739599	1.491121	1.266138	1.100814	0.982967	0.890094	0.814207	0.752078	0.701767	0.66232	0.633747	0.618134	0.617991	0.625206	0.625206
NOx	0.830017	0.664652	0.462466	0.33015	0.251801	0.212903	0.190724	0.177438	0.169597	0.1655	0.164253	0.166734	0.172199	0.175726	0.175726
CO2	1001.212036	770.555298	595.002197	482.522858	409.255432	359.408966	327.367767	306.635803	295.380798	293.98053	301.268494	317.688354	345.802124	364.73877	364.73877
CH4	0.079537	0.054315	0.03448	0.022677	0.016746	0.013097	0.010679	0.009105	0.008154	0.007702	0.007698	0.008185	0.009196	0.009997	0.009997
PM10	0.013356	0.008886	0.006128	0.00444	0.003412	0.002762	0.002342	0.002077	0.001926	0.001866	0.001891	0.00201	0.002238	0.002416	0.002416
PM2.5	0.012388	0.008255	0.0057	0.004133	0.003179	0.002576	0.002186	0.00194	0.001799	0.001743	0.001766	0.001877	0.00209	0.002255	0.002255
Benzene	0.006871	0.004602	0.003032	0.002088	0.001558	0.001227	0.001012	0.000876	0.000796	0.000762	0.000771	0.000822	0.000923	0.000923	0.000923
Acrolein	0.000286	0.000184	0.000124	0.000089	0.000067	0.000053	0.000044	0.000039	0.000036	0.000035	0.000036	0.000039	0.000044	0.000044	0.000044
Acetaldehyde	0.006276	0.004714	0.002882	0.001774	0.001289	0.000994	0.000786	0.00064	0.000541	0.00048	0.000458	0.000464	0.000494	0.000494	0.000494
Formaldehyde	0.014615	0.010755	0.006661	0.004187	0.003058	0.002368	0.001888	0.001558	0.001339	0.00121	0.001171	0.001203	0.0013	0.0013	0.0013
Butadiene	0.001372	0.000899	0.000601	0.000422	0.000317	0.00025	0.000208	0.000181	0.000167	0.000161	0.000164	0.000176	0.000198	0.000198	0.000198
Naphthalene	0.000201	0.000138	0.00009	0.000061	0.000045	0.000036	0.000029	0.000025	0.000023	0.000021	0.000022	0.000023	0.000026	0.000026	0.000026
POM	0.000317	0.000218	0.000139	0.000091	0.000067	0.000053	0.000043	0.000037	0.000034	0.000032	0.000032	0.000034	0.000037	0.000037	0.000037
Diesel PM	0.002877	0.00227	0.001723	0.001346	0.00112	0.000972	0.000869	0.000798	0.000756	0.000737	0.000742	0.000757	0.000783	0.000783	0.000783
DEOG	0.073018	0.056161	0.033789	0.020245	0.014595	0.011181	0.008729	0.006977	0.005758	0.00496	0.004625	0.004578	0.004751	0.004751	0.004751

==========

Fleet Average Idling Exhaust Emission Factors (grams/veh-idle hour)

Pollutant Name	Emission Factor
HC	0.883228
ROG	0.703384
TOG	0.98647
CO	6.138116
NOx	2.846045
CO2	2520.257324
CH4	0.242823
PM10	0.04688
PM2.5	0.043891
Benzene	0.022096
Acrolein	0.001113
Acetaldehyde	0.015062
Formaldehyde	0.037441
Butadiene	0.004553
Naphthalene	0.000588
POM	0.00096
Diesel PM	0.021026
DEOG	0.165791

==========

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	1.307006
ROG	1.397359
TOG	1.397359
Benzene	0.013974
Butadiene	0
Naphthalene	0.001956

==========

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.008851
PM2.5	0.002213

==========

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.042253
PM2.5	0.018108

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2025 EF

File Name: San Diego (SD) - 2025 - Annual.EF
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:14
Area: San Diego (SD)
Analysis Year: 2025
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.633
Truck 2	0.042	0.949
Non-Truck	0.92	0.013

==========

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
HC	0.24667	0.165395	0.1085	0.074286	0.055247	0.043371	0.035638	0.0307	0.02779	0.026493	0.026646	0.028436	0.032069	0.034766	0.034766
ROG	0.1933	0.129398	0.085563	0.059088	0.044018	0.034595	0.028478	0.024585	0.022298	0.021288	0.021425	0.022874	0.025812	0.027959	0.027959
TOG	0.276856	0.186648	0.122123	0.083276	0.061858	0.048509	0.039788	0.034193	0.030866	0.029341	0.029431	0.031361	0.035339	0.038295	0.038295
CO	1.577017	1.35169	1.142254	0.989442	0.882321	0.798226	0.729459	0.67305	0.62719	0.590958	0.564267	0.548978	0.547083	0.552314	0.552314
NOx	0.810166	0.643324	0.438414	0.303958	0.224598	0.185949	0.164157	0.15113	0.143349	0.139092	0.137459	0.139258	0.143757	0.146674	0.146674
CO2	930.564026	717.619019	554.216187	449.854919	382.031494	335.880219	306.259827	287.010895	276.481049	275.105713	281.733398	296.75647	322.558594	339.916443	339.916443
CH4	0.072404	0.049591	0.031589	0.020843	0.015367	0.011985	0.00974	0.008272	0.007375	0.006934	0.006896	0.007313	0.008209	0.008911	0.008911
PM10	0.012813	0.008496	0.005857	0.004244	0.003258	0.002634	0.002232	0.001977	0.001831	0.00177	0.001789	0.001897	0.002109	0.002272	0.002272
PM2.5	0.011873	0.007886	0.005442	0.003947	0.003033	0.002455	0.002081	0.001845	0.001709	0.001652	0.00167	0.00177	0.001967	0.002119	0.002119
Benzene	0.00633	0.004247	0.002793	0.001918	0.001429	0.001124	0.000925	0.000798	0.000724	0.000691	0.000698	0.000744	0.000835	0.000835	0.000835
Acrolein	0.00026	0.000167	0.000113	0.000081	0.000061	0.000048	0.00004	0.000035	0.000033	0.000032	0.000032	0.000035	0.00004	0.00004	0.00004
Acetaldehyde	0.006022	0.004538	0.002774	0.001704	0.001232	0.000946	0.000743	0.000601	0.000504	0.000441	0.000417	0.000421	0.000447	0.000447	0.000447
Formaldehyde	0.013915	0.010277	0.00636	0.003987	0.002899	0.002235	0.001773	0.001453	0.001239	0.001108	0.001065	0.00109	0.001175	0.001175	0.001175
Butadiene	0.001256	0.000824	0.00055	0.000386	0.000289	0.000228	0.000189	0.000165	0.000151	0.000146	0.000148	0.000159	0.00018	0.00018	0.00018
Naphthalene	0.000188	0.000129	0.000084	0.000056	0.000042	0.000033	0.000027	0.000023	0.000021	0.00002	0.00002	0.000021	0.000023	0.000023	0.000023
POM	0.000291	0.000201	0.000127	0.000084	0.000062	0.000048	0.00004	0.000034	0.00003	0.000029	0.000029	0.00003	0.000034	0.000034	0.000034
Diesel PM	0.002454	0.001963	0.00151	0.001194	0.001001	0.000873	0.000782	0.00072	0.00068	0.00066	0.00066	0.00067	0.000689	0.000689	0.000689
DEOG	0.070564	0.054414	0.032765	0.019624	0.014077	0.010726	0.008322	0.006598	0.005386	0.004572	0.004212	0.004142	0.004277	0.004277	0.004277

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Fleet Average Idling Exhaust Emission Factors (grams/veh-idle hour)

Pollutant Name	Emission Factor
HC	0.805212
ROG	0.647126
TOG	0.901962
CO	5.650042
NOx	2.668965
CO2	2343.813965
CH4	0.217606
PM10	0.045386
PM2.5	0.042471
Benzene	0.020234
Acrolein	0.001023
Acetaldehyde	0.014345
Formaldehyde	0.035318
Butadiene	0.004153
Naphthalene	0.000544
POM	0.000876
Diesel PM	0.019811
DEOG	0.159315

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Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	1.206099
ROG	1.289475
TOG	1.289475
Benzene	0.012895
Butadiene	0
Naphthalene	0.001805

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Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.008852
PM2.5	0.002213

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Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.042203
PM2.5	0.018087

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2035 EF

File Name: San Diego (SD) - 2035 - Annual.EF
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:15
Area: San Diego (SD)
Analysis Year: 2035
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.684
Truck 2	0.042	0.95
Non-Truck	0.92	0.013

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Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
HC	0.202328	0.13626	0.089011	0.060566	0.044775	0.034951	0.028543	0.024427	0.021958	0.020785	0.020761	0.022078	0.024877	0.026923	0.026923
ROG	0.161134	0.108353	0.070724	0.048072	0.035547	0.027791	0.022753	0.01953	0.01761	0.016714	0.016731	0.017811	0.020081	0.021729	0.021729
TOG	0.228138	0.154591	0.100523	0.067955	0.050132	0.039073	0.031836	0.027162	0.024329	0.022942	0.022832	0.024227	0.027264	0.029485	0.029485
CO	1.19866	1.020841	0.843823	0.71856	0.636435	0.573445	0.52226	0.480412	0.446402	0.419428	0.399324	0.387653	0.385627	0.388823	0.388823
NOx	0.732395	0.567984	0.364669	0.230324	0.151486	0.114773	0.094614	0.082604	0.075184	0.070651	0.068123	0.068197	0.07021	0.071526	0.071526
CO2	757.089478	587.458191	453.953979	369.524414	315.05249	277.967865	254.273895	238.659622	229.91069	228.588394	233.590912	245.196671	265.34433	278.843109	278.843109
CH4	0.057686	0.039787	0.025681	0.017171	0.012603	0.009747	0.007844	0.006588	0.005798	0.005374	0.005264	0.005537	0.006199	0.006696	0.006696
PM10	0.006758	0.004522	0.003155	0.002317	0.001795	0.001463	0.001247	0.001107	0.001023	0.000982	0.00098	0.001026	0.001126	0.001202	0.001202
PM2.5	0.006258	0.004195	0.002932	0.002156	0.001673	0.001365	0.001164	0.001034	0.000956	0.000917	0.000915	0.000957	0.00105	0.001121	0.001121
Benzene	0.005249	0.003535	0.002312	0.001576	0.001167	0.000912	0.000747	0.000641	0.000577	0.000548	0.000551	0.000588	0.000662	0.000662	0.000662
Acrolein	0.00021	0.000135	0.000091	0.000065	0.000049	0.000038	0.000032	0.000028	0.000026	0.000025	0.000026	0.000028	0.000032	0.000032	0.000032
Acetaldehyde	0.00538	0.004085	0.002485	0.001511	0.001076	0.000813	0.000627	0.000495	0.000402	0.000338	0.00031	0.000308	0.000325	0.000325	0.000325
Formaldehyde	0.012259	0.009129	0.005616	0.003481	0.002496	0.001897	0.001481	0.00119	0.000989	0.000856	0.000803	0.000814	0.000874	0.000874	0.000874
Butadiene	0.001031	0.000677	0.00045	0.000314	0.000234	0.000184	0.000152	0.000132	0.000121	0.000117	0.000118	0.000127	0.000144	0.000144	0.000144
Naphthalene	0.00016	0.000111	0.000071	0.000048	0.000035	0.000027	0.000022	0.000019	0.000017	0.000016	0.000016	0.000017	0.000019	0.000019	0.000019
POM	0.000214	0.000148	0.000094	0.000062	0.000045	0.000035	0.000029	0.000024	0.000021	0.00002	0.00002	0.000021	0.000023	0.000023	0.000023
Diesel PM	0.001152	0.000992	0.000811	0.000675	0.000581	0.000517	0.000469	0.000433	0.000405	0.000386	0.000373	0.000373	0.000378	0.000378	0.000378
DEOG	0.063692	0.049466	0.029667	0.017598	0.012405	0.009286	0.007053	0.005437	0.004267	0.003425	0.003006	0.002888	0.00293	0.00293	0.00293

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Fleet Average Idling Exhaust Emission Factors (grams/veh-idle hour)

Pollutant Name	Emission Factor
HC	0.62888
ROG	0.521185
TOG	0.710972
CO	4.510371
NOx	1.969998
CO2	1908.74353
CH4	0.159448
PM10	0.028034
PM2.5	0.026311
Benzene	0.016082
Acrolein	0.000825
Acetaldehyde	0.012907
Formaldehyde	0.030879
Butadiene	0.00326
Naphthalene	0.000451
POM	0.000633
Diesel PM	0.01429
DEOG	0.146827

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Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	0.736606
ROG	0.787527
TOG	0.787527
Benzene	0.007875
Butadiene	0
Naphthalene	0.001103

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Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.008856
PM2.5	0.002214

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Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.042065
PM2.5	0.018028

==========END==========

4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
CT-EMFAC 2050 EF

File Name: San Diego (SD) - 2050 - Annual.EF
CT-EMFAC Version: 6.0.0.29548
Run Date: 6/30/2021 14:15
Area: San Diego (SD)
Analysis Year: 2050
Season: Annual

==========

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.038	0.698
Truck 2	0.042	0.955
Non-Truck	0.92	0.013

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Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
HC	0.190057	0.128086	0.083665	0.056892	0.041981	0.032715	0.026675	0.022789	0.020445	0.019308	0.019237	0.020425	0.023	0.024862	0.024862
ROG	0.153422	0.103354	0.067197	0.045439	0.033515	0.026159	0.021377	0.018313	0.016475	0.015601	0.015579	0.01656	0.018656	0.020171	0.020171
TOG	0.214721	0.145658	0.094636	0.063872	0.047016	0.036575	0.029744	0.025325	0.02263	0.021281	0.021114	0.02236	0.025141	0.027151	0.027151
CO	1.097909	0.930895	0.760981	0.642338	0.56682	0.509618	0.463384	0.425752	0.39529	0.371235	0.353417	0.343362	0.342146	0.345311	0.345311
NOx	0.716214	0.551101	0.346641	0.211129	0.131492	0.094784	0.074733	0.062762	0.055264	0.050521	0.047648	0.047194	0.048506	0.049392	0.049392
CO2	722.580627	561.480957	434.033234	353.56842	301.710358	266.554138	244.130386	229.232208	220.966431	219.67485	224.20343	234.971375	254.009094	266.751038	266.751038
CH4	0.052459	0.036166	0.023539	0.015882	0.011644	0.008983	0.007214	0.006044	0.005304	0.004895	0.00477	0.004999	0.00559	0.006019	0.006019
PM10	0.004544	0.003071	0.002175	0.001623	0.001272	0.001047	0.000899	0.000801	0.00074	0.000706	0.000696	0.00072	0.000779	0.000823	0.000823
PM2.5	0.004206	0.00285	0.002022	0.001511	0.001186	0.000978	0.00084	0.00075	0.000692	0.00066	0.000651	0.000672	0.000727	0.000767	0.000767
Benzene	0.004963	0.003344	0.002185	0.001488	0.001099	0.000858	0.000702	0.000601	0.00054	0.000512	0.000514	0.000548	0.000618	0.000618	0.000618
Acrolein	0.000198	0.000127	0.000086	0.000061	0.000046	0.000036	0.00003	0.000027	0.000025	0.000024	0.000024	0.000026	0.00003	0.00003	0.00003
Acetaldehyde	0.005113	0.003891	0.002366	0.001435	0.001015	0.000762	0.000584	0.000457	0.000367	0.000303	0.000272	0.000268	0.000281	0.000281	0.000281
Formaldehyde	0.011634	0.008683	0.005339	0.003301	0.002353	0.00178	0.001381	0.001102	0.000906	0.000774	0.000716	0.000722	0.000774	0.000774	0.000774
Butadiene	0.000976	0.000641	0.000426	0.000297	0.000221	0.000174	0.000144	0.000125	0.000114	0.00011	0.000111	0.00012	0.000136	0.000136	0.000136
Naphthalene	0.000153	0.000105	0.000068	0.000045	0.000033	0.000026	0.000021	0.000018	0.000016	0.000015	0.000015	0.000016	0.000017	0.000017	0.000017
POM	0.000185	0.000128	0.000082	0.000055	0.00004	0.000031	0.000025	0.000021	0.000019	0.000017	0.000017	0.000018	0.00002	0.00002	0.00002
Diesel PM	0.000733	0.000673	0.000582	0.000507	0.000447	0.000404	0.000371	0.000343	0.000321	0.000301	0.000284	0.00028	0.00028	0.00028	0.00028
DEOG	0.06044	0.047081	0.028223	0.016689	0.011677	0.008678	0.006536	0.004979	0.003837	0.002993	0.002544	0.0024	0.0024	0.0024	0.0024

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Fleet Average Idling Exhaust Emission Factors (grams/veh-idle hour)

Pollutant Name	Emission Factor
HC	0.56682
ROG	0.478284
TOG	0.643923
CO	4.161387
NOx	1.580042
CO2	1822.122192
CH4	0.137709
PM10	0.02041
PM2.5	0.019184
Benzene	0.014659
Acrolein	0.000757
Acetaldehyde	0.012703
Formaldehyde	0.029894
Butadiene	0.002947
Naphthalene	0.000422
POM	0.00054
Diesel PM	0.011144
DEOG	0.146365

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Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	0.55224
ROG	0.590416
TOG	0.590416
Benzene	0.005904
Butadiene	0
Naphthalene	0.000827

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Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.00886
PM2.5	0.002215

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Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM10	0.042028
PM2.5	0.018012

==========END==========

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** AERMOD Input Produced by:
** AERMOD View Ver. 9.5.0
** Lakes Environmental Software Inc.
** Date: 9/8/2021
** File: C:\Lakes\AERMOD View\PA61\PA61.ADI
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**
**
**********************************************
** AERMOD Control Pathway
**********************************************
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   MODELOPT CONC FLAT ELEV
   AVERTIME ANNUAL
   URBANOPT 3000
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL PA61.err
CO FINISHED
**
**********************************************
** AERMOD Source Pathway
**********************************************
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC SR-905
** PREFIX
** Length of Side = 8.44
** Configuration = Adjacent
** Emission Rate = 0.0005642
** Vertical Dimension = 7.26
** SZINIT = 3.38
** Nodes = 24
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** 497970.257, 3603456.709, 131.72, 3.63, 3.93
** 498025.290, 3603442.248, 134.87, 3.63, 3.93
** 498075.904, 3603426.983, 136.20, 3.63, 3.93
** 498126.920, 3603409.308, 136.99, 3.63, 3.93
** 498185.970, 3603384.001, 139.31, 3.63, 3.93
** 498314.601, 3603332.430, 140.00, 3.63, 3.93
** 498428.573, 3603288.759, 140.86, 3.63, 3.93
** 498560.653, 3603235.501, 141.52, 3.63, 3.93
** 498625.628, 3603214.198, 141.75, 3.63, 3.93
** 498721.492, 3603190.764, 141.94, 3.63, 3.93
** 498791.793, 3603184.373, 141.86, 3.63, 3.93
** 498858.898, 3603181.178, 141.61, 3.63, 3.93
** 498950.502, 3603185.438, 141.06, 3.63, 3.93
** 499182.036, 3603205.413, 141.00, 3.63, 3.93
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** 499527.450, 3603228.514, 141.12, 3.63, 3.93
** 499592.353, 3603225.214, 141.30, 3.63, 3.93
** 499635.255, 3603217.513, 141.24, 3.63, 3.93
** 499686.957, 3603205.413, 140.30, 3.63, 3.93
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** 499822.263, 3603160.311, 137.96, 3.63, 3.93
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   LOCATION L0000002     VOLUME    497908.406 3603467.742 128.52
   LOCATION L0000003     VOLUME    497916.715 3603466.260 128.88
   LOCATION L0000004     VOLUME    497925.024 3603464.778 129.25
   LOCATION L0000005     VOLUME    497933.332 3603463.296 129.61
   LOCATION L0000006     VOLUME    497941.641 3603461.814 129.96
   LOCATION L0000007     VOLUME    497949.950 3603460.332 130.32
   LOCATION L0000008     VOLUME    497958.259 3603458.849 130.67
   LOCATION L0000009     VOLUME    497966.568 3603457.367 131.02
   LOCATION L0000010     VOLUME    497974.795 3603455.517 131.41
   LOCATION L0000011     VOLUME    497982.958 3603453.372 131.81
   LOCATION L0000012     VOLUME    497991.121 3603451.227 132.22
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   LOCATION L0000017     VOLUME    498031.869 3603440.264 134.30
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   LOCATION L0000026     VOLUME    498104.218 3603417.174 137.11
   LOCATION L0000027     VOLUME    498112.193 3603414.411 137.39
   LOCATION L0000028     VOLUME    498120.168 3603411.648 137.66
   LOCATION L0000029     VOLUME    498128.110 3603408.799 137.88
   LOCATION L0000030     VOLUME    498135.867 3603405.474 138.08
   LOCATION L0000031     VOLUME    498143.625 3603402.149 138.28
   LOCATION L0000032     VOLUME    498151.383 3603398.825 138.49
   LOCATION L0000033     VOLUME    498159.140 3603395.500 138.71
   LOCATION L0000034     VOLUME    498166.898 3603392.175 138.93
   LOCATION L0000035     VOLUME    498174.655 3603388.851 139.17
   LOCATION L0000036     VOLUME    498182.413 3603385.526 139.40
   LOCATION L0000037     VOLUME    498190.212 3603382.301 139.65
   LOCATION L0000038     VOLUME    498198.046 3603379.160 139.91
   LOCATION L0000039     VOLUME    498205.879 3603376.019 140.00
   LOCATION L0000040     VOLUME    498213.713 3603372.879 140.00
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   LOCATION L0000044     VOLUME    498245.049 3603360.315 140.00
   LOCATION L0000045     VOLUME    498252.883 3603357.175 140.00
   LOCATION L0000046     VOLUME    498260.716 3603354.034 140.00
   LOCATION L0000047     VOLUME    498268.550 3603350.893 140.00
   LOCATION L0000048     VOLUME    498276.384 3603347.752 140.00
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   SRCPARAM L0000245     0.000002303      3.63      3.93      3.38
** ----------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   GRIDCART UCART1 STA
                XYINC 497875.72 42 50.00 3602303.58 42 50.00
                ELEV    1   123.20   123.50   124.20   126.40   128.00   129.30
                ELEV    1   130.40   131.60   132.90   133.30   132.90   131.10
                ELEV    1   129.30   127.40   125.00   123.30   122.10   122.50
                ELEV    1   122.80   122.80   122.80   123.00   123.70   123.80
                ELEV    1   123.50   122.50   122.10   122.00   122.00   121.90
                ELEV    1   121.70   120.00   117.40   113.90   111.30   109.30
                ELEV    1   108.60   111.80   116.00   120.20   122.40   123.60
                ELEV    2   122.70   122.80   123.50   125.80   127.60   129.10
                ELEV    2   130.40   131.60   132.90   133.80   133.70   132.20
                ELEV    2   130.40   128.40   126.20   124.50   123.20   123.50
                ELEV    2   123.60   123.60   123.60   123.80   124.20   124.10
                ELEV    2   123.60   122.40   122.00   122.00   122.00   122.00
                ELEV    2   122.00   121.10   119.30   116.50   114.60   112.80
                ELEV    2   110.90   111.90   114.00   117.40   119.90   121.90
                ELEV    3   122.20   122.60   123.40   125.40   127.30   129.10
                ELEV    3   130.40   131.60   132.90   134.10   134.50   133.70
                ELEV    3   132.00   130.20   128.70   127.00   125.30   124.90
                ELEV    3   124.70   124.70   124.70   124.70   124.80   124.40
                ELEV    3   123.60   122.40   122.00   122.00   122.00   122.00
                ELEV    3   122.00   121.80   120.70   118.60   118.00   117.10
                ELEV    3   115.20   114.30   113.90   114.10   116.40   119.70
                ELEV    4   122.30   122.90   123.80   125.70   127.40   129.10
                ELEV    4   130.40   131.60   132.90   134.20   134.90   134.80
                ELEV    4   133.40   131.80   130.60   129.20   127.80   126.90
                ELEV    4   126.50   126.50   126.50   126.40   126.20   125.40
                ELEV    4   124.40   123.10   122.60   122.40   122.40   122.40
                ELEV    4   122.40   122.10   121.50   120.30   120.20   119.80
                ELEV    4   118.60   117.70   116.80   115.40   116.10   118.00
                ELEV    5   122.80   123.40   124.30   126.20   127.80   129.10
                ELEV    5   130.40   131.60   132.90   134.20   135.20   135.70
                ELEV    5   134.80   133.50   132.20   131.30   130.50   129.30
                ELEV    5   128.70   128.70   128.70   128.50   127.90   126.70
                ELEV    5   125.50   124.20   123.40   122.90   122.90   122.90
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ELEV   6  122.80  123.70  124.80  126.40  127.80  129.10
ELEV   6  130.70  132.10  133.40  134.40  135.30  136.30
ELEV   6  135.70  134.70  133.70  133.00  132.30  131.30
ELEV   6  130.70  130.40  130.40  130.10  129.50  128.10
ELEV   6  126.70  125.70  124.70  123.90  123.60  123.10
ELEV   6  122.50  122.20  122.00  122.00  122.00  122.10
ELEV   6  122.40  122.50  122.10  120.50  119.10  117.90
ELEV   7  122.80  124.00  125.20  126.50  127.80  129.10
ELEV   7  131.00  132.60  133.90  134.60  135.50  136.80
ELEV   7  136.50  135.90  135.20  134.60  133.90  133.30
ELEV   7  132.70  132.00  132.00  131.80  131.10  129.40
ELEV   7  127.90  127.20  126.10  124.90  124.30  123.20
ELEV   7  122.00  122.00  122.00  122.00  122.00  122.20
ELEV   7  122.90  123.00  122.90  122.20  121.20  120.00
ELEV   8  122.80  124.00  125.30  126.90  128.40  129.70
ELEV   8  131.20  132.60  133.90  134.90  135.90  136.80
ELEV   8  137.10  136.90  136.30  135.70  135.10  134.80
ELEV   8  134.30  133.70  133.30  132.80  132.20  131.10
ELEV   8  129.80  128.50  127.20  125.90  125.00  123.60
ELEV   8  122.00  122.00  122.00  122.00  122.00  122.20
ELEV   8  122.90  123.30  123.50  123.20  122.30  121.10
ELEV   9  122.80  124.00  125.50  127.30  128.80  130.20
ELEV   9  131.50  132.70  134.00  135.30  136.40  137.00
ELEV   9  137.70  138.00  137.40  136.80  136.30  136.20
ELEV   9  135.90  135.30  134.70  134.10  133.50  132.80
ELEV   9  131.80  130.00  128.50  127.20  125.80  124.10
ELEV   9  122.30  122.20  122.10  122.00  122.10  122.30
ELEV   9  123.10  123.80  124.30  124.30  123.50  122.20
ELEV  10  122.80  124.30  125.90  127.40  129.10  130.70
ELEV  10  132.00  133.30  134.50  135.80  137.00  138.10
ELEV  10  138.50  138.60  138.30  138.10  137.90  137.50
ELEV  10  137.10  136.90  136.70  136.30  135.60  135.00
ELEV  10  134.10  132.60  131.20  129.80  127.70  125.80
ELEV  10  123.90  123.50  122.90  122.10  122.40  123.10
ELEV  10  124.60  125.40  125.90  125.90  125.10  123.80
ELEV  11  122.70  124.40  126.30  127.70  129.40  131.30
ELEV  11  132.70  134.00  135.30  136.50  137.80  138.90
ELEV  11  139.20  139.20  139.20  139.20  139.10  138.60
ELEV  11  138.30  138.30  138.40  138.10  137.60  137.00
ELEV  11  136.20  135.00  133.80  132.30  130.00  128.00
ELEV  11  126.20  125.50  124.30  122.70  123.30  124.50
ELEV  11  126.30  127.20  127.70  127.60  126.70  125.40
ELEV  12  122.20  124.10  126.30  128.10  129.90  131.80
ELEV  12  133.60  135.10  136.30  137.60  138.70  139.60
ELEV  12  139.70  139.70  139.70  139.70  139.70  139.50
ELEV  12  139.40  139.40  139.40  139.40  139.20  138.60
ELEV  12  137.90  137.10  135.90  134.60  133.00  131.40
ELEV  12  130.00  128.90  127.10  124.40  125.60  127.10
ELEV  12  128.50  129.40  129.80  129.30  128.30  127.00
ELEV  13  122.00  124.10  126.60  128.50  130.60  132.60
ELEV  13  134.60  136.20  137.70  138.70  139.50  140.10
ELEV  13  140.30  140.30  140.30  140.30  140.30  140.30
ELEV  13  140.30  140.30  140.30  140.30  140.30  139.70
ELEV  13  139.10  138.60  137.80  136.80  135.50  134.40
ELEV  13  133.30  132.10  130.40  127.80  128.90  130.10
ELEV  13  131.10  131.70  131.90  131.30  130.20  128.80
ELEV  14  122.00  124.30  127.20  129.10  131.30  133.70
ELEV  14  135.60  137.50  139.30  139.60  140.00  140.70
ELEV  14  140.80  140.80  140.80  140.80  140.80  140.80
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ELEV  14  139.80  139.60  139.40  139.00  137.70  136.70
ELEV  14  136.00  135.20  134.30  133.10  133.30  133.70
ELEV  14  133.90  134.10  134.10  133.40  132.40  130.90
ELEV  15  122.90  125.10  127.70  129.90  132.10  134.50
ELEV  15  136.40  138.20  139.90  140.00  140.20  140.90
ELEV  15  141.00  141.10  141.30  141.20  141.00  141.00
ELEV  15  141.00  141.00  141.00  141.00  141.00  140.60
ELEV  15  140.30  140.30  140.30  140.20  139.10  138.40
ELEV  15  138.00  137.60  137.20  136.70  136.70  136.70
ELEV  15  136.70  136.50  136.20  135.30  134.20  132.70
ELEV  16  124.40  126.20  128.40  130.80  133.00  135.00
ELEV  16  136.90  138.60  139.90  140.00  140.20  140.90
ELEV  16  141.00  141.10  141.70  141.50  141.00  141.00
ELEV  16  141.00  141.00  141.00  141.00  141.00  140.90
ELEV  16  140.90  140.90  140.90  140.80  140.10  139.70
ELEV  16  139.60  139.60  139.50  139.40  139.40  139.40
ELEV  16  139.40  139.00  138.30  137.10  135.80  134.30
ELEV  17  125.50  127.30  129.30  131.60  133.60  135.50
ELEV  17  137.20  138.60  139.90  140.00  140.20  140.90
ELEV  17  141.00  141.20  141.80  141.80  141.40  141.40
ELEV  17  141.40  141.40  141.20  141.00  141.00  141.00
ELEV  17  141.00  141.00  141.00  140.90  140.60  140.40
ELEV  17  140.40  140.40  140.40  140.40  140.70  140.70
ELEV  17  140.10  139.70  139.20  137.90  136.60  135.10
ELEV  18  126.50  128.40  130.30  132.20  134.20  136.00
ELEV  18  137.30  138.60  139.90  140.00  140.20  140.90
ELEV  18  141.00  141.20  141.80  142.00  142.00  142.00
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ELEV  19  127.00  129.00  130.90  132.80  134.50  136.10
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ELEV  19  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  19  142.00  142.00  141.70  141.50  141.50  141.50
ELEV  19  141.50  141.50  141.50  141.60  141.90  142.00
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ELEV  19  141.30  141.00  140.90  140.20  139.60  138.90
ELEV  20  127.50  129.40  131.40  133.30  134.80  136.20
ELEV  20  138.10  139.30  140.00  140.00  140.20  140.90
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ELEV  20  142.00  142.00  142.00  142.00  142.00  142.00
ELEV  20  142.00  142.00  142.00  142.10  142.80  143.00
ELEV  20  143.10  143.70  144.00  144.00  144.00  143.60
ELEV  20  142.40  142.10  142.10  142.10  142.10  142.00
ELEV  21  127.40  129.40  131.40  133.30  135.00  136.70
ELEV  21  138.60  139.70  140.00  140.00  140.20  140.90
ELEV  21  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  21  142.00  142.00  142.00  142.00  142.00  142.30
ELEV  21  142.60  142.60  142.60  142.70  143.30  143.60
ELEV  21  143.60  144.20  144.60  144.60  144.60  144.40
ELEV  21  143.90  143.80  143.80  143.80  143.50  143.20
ELEV  22  127.40  129.40  131.40  133.40  135.30  137.20
ELEV  22  139.10  140.00  140.00  140.00  140.20  140.90
ELEV  22  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  22  142.00  142.00  142.00  142.00  142.00  142.50
ELEV  22  142.90  142.90  142.90  143.00  143.60  143.90
ELEV  22  143.90  144.40  144.80  144.90  144.90  144.90
ELEV  22  145.10  145.10  145.10  145.10  144.70  144.10
ELEV  23  127.40  129.40  131.40  133.80  135.90  137.80
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ELEV  23  139.30  140.00  140.00  140.00  140.20  140.90
ELEV  23  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  23  142.00  142.00  142.00  142.00  142.00  142.20
ELEV  23  142.30  142.30  142.30  142.40  143.10  143.30
ELEV  23  143.30  143.50  143.90  144.30  144.30  144.60
ELEV  23  145.50  145.70  145.70  145.70  145.30  144.70
ELEV  24  127.10  129.30  131.50  133.90  136.00  137.90
ELEV  24  139.30  140.00  140.00  140.00  140.20  140.90
ELEV  24  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  24  142.00  142.00  142.00  141.90  141.80  141.80
ELEV  24  141.80  141.80  141.80  141.90  142.50  142.80
ELEV  24  142.80  142.80  143.00  143.50  143.70  144.20
ELEV  24  145.30  145.60  145.60  145.70  145.60  145.20
ELEV  25  126.50  129.10  131.40  133.50  135.40  137.40
ELEV  25  139.10  140.00  140.00  140.00  140.20  140.90
ELEV  25  141.00  141.20  141.80  142.00  142.00  142.00
ELEV  25  142.00  142.00  142.00  141.80  141.30  141.20
ELEV  25  141.20  141.20  141.20  141.30  142.00  142.20
ELEV  25  142.20  142.20  142.30  142.50  142.90  143.50
ELEV  25  144.30  144.50  144.60  145.10  145.50  145.80
ELEV  26  125.40  128.30  131.10  133.00  134.90  136.80
ELEV  26  138.70  139.80  140.00  140.00  140.20  140.90
ELEV  26  141.00  141.20  141.80  141.90  141.70  141.70
ELEV  26  141.70  141.70  141.70  141.40  140.80  140.70
ELEV  26  140.70  140.70  140.70  140.80  141.20  141.40
ELEV  26  141.40  141.40  141.40  141.40  142.00  142.60
ELEV  26  143.00  143.10  143.20  143.70  144.20  144.90
ELEV  27  124.00  127.20  130.50  132.40  134.40  136.30
ELEV  27  138.20  139.40  140.00  140.00  140.20  140.90
ELEV  27  141.00  141.20  141.80  141.60  141.20  141.20
ELEV  27  141.20  141.20  141.20  140.90  140.30  140.20
ELEV  27  140.20  140.20  140.20  140.20  140.30  140.30
ELEV  27  140.30  140.30  140.30  140.30  140.90  141.40
ELEV  27  141.50  141.50  141.50  141.60  142.10  142.70
ELEV  28  124.20  127.30  130.40  132.30  134.20  136.10
ELEV  28  137.80  139.10  139.90  140.00  140.20  140.90
ELEV  28  141.00  141.10  141.50  141.40  141.00  141.00
ELEV  28  141.00  141.00  140.80  140.30  139.40  139.00
ELEV  28  138.90  138.90  138.90  138.90  139.10  139.20
ELEV  28  139.30  139.50  139.60  139.60  140.20  140.60
ELEV  28  140.60  140.60  140.60  140.60  140.90  141.30
ELEV  29  125.20  127.80  130.40  132.30  134.20  136.10
ELEV  29  137.40  138.70  139.90  140.00  140.20  140.90
ELEV  29  141.00  141.00  141.10  141.00  141.00  141.00
ELEV  29  141.00  141.00  140.40  139.60  138.30  137.70
ELEV  29  137.20  137.20  137.20  137.30  137.90  138.20
ELEV  29  138.20  138.80  139.10  139.10  139.70  140.10
ELEV  29  140.10  140.10  140.10  140.10  140.10  140.20
ELEV  30  126.90  129.10  131.20  132.80  134.50  136.10
ELEV  30  137.40  138.60  139.90  140.00  140.20  140.90
ELEV  30  141.00  141.00  141.00  141.00  141.00  140.70
ELEV  30  140.50  140.50  139.30  138.00  136.40  135.40
ELEV  30  134.80  135.10  135.40  135.70  136.40  136.80
ELEV  30  137.10  137.70  138.20  138.50  139.10  139.50
ELEV  30  139.50  139.50  139.50  139.50  139.40  139.10
ELEV  31  128.70  130.40  132.20  133.50  134.80  136.10
ELEV  31  137.40  138.60  139.90  140.00  140.20  140.90
ELEV  31  141.00  141.00  141.00  141.00  140.90  140.30
ELEV  31  140.00  140.00  138.10  136.20  134.30  132.90
ELEV  31  132.20  132.80  133.50  134.10  134.70  135.40
ELEV  31  136.00  136.70  137.30  137.90  138.60  139.00
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ELEV  31  139.00  139.00  139.00  139.00  138.60  137.90
ELEV  32  130.50  131.80  133.30  134.20  135.30  136.60
ELEV  32  137.90  139.00  139.90  140.00  140.20  140.90
ELEV  32  141.00  140.90  140.60  140.50  140.40  139.70
ELEV  32  138.90  137.90  136.00  133.70  131.10  129.10
ELEV  32  128.10  129.80  131.00  132.00  133.00  134.00
ELEV  32  134.90  135.60  136.20  136.90  137.50  137.90
ELEV  32  137.90  137.90  137.90  137.90  137.50  136.90
ELEV  33  132.10  133.10  134.20  134.80  135.80  137.10
ELEV  33  138.30  139.20  139.90  140.00  140.20  140.80
ELEV  33  140.90  140.80  140.10  139.80  139.70  138.90
ELEV  33  137.40  135.50  133.40  131.00  128.00  125.50
ELEV  33  124.50  127.00  128.60  130.00  131.20  132.50
ELEV  33  133.80  134.50  135.10  135.80  136.40  136.90
ELEV  33  136.90  136.90  136.90  136.90  136.40  135.80
ELEV  34  133.10  133.90  134.70  135.40  136.20  137.10
ELEV  34  137.90  138.70  139.30  139.70  140.10  140.30
ELEV  34  140.40  140.20  139.60  138.80  137.90  136.10
ELEV  34  134.00  131.70  129.00  126.60  124.60  123.40
ELEV  34  123.30  125.00  126.70  128.30  129.60  130.90
ELEV  34  132.20  133.20  134.00  134.70  135.30  135.90
ELEV  34  136.30  136.40  136.30  135.90  135.30  134.70
ELEV  35  133.50  134.20  134.80  135.30  135.80  136.40
ELEV  35  137.00  137.70  138.30  139.00  139.50  139.50
ELEV  35  139.50  139.30  138.60  137.40  135.90  133.50
ELEV  35  131.00  128.60  125.60  123.30  122.20  122.00
ELEV  35  122.30  123.50  125.10  126.90  128.10  129.40
ELEV  35  130.70  132.00  133.00  133.80  134.40  135.10
ELEV  35  135.80  135.90  135.70  134.90  134.30  133.60
ELEV  36  132.30  133.10  133.60  133.80  134.00  134.20
ELEV  36  134.90  135.50  136.10  137.20  137.90  137.90
ELEV  36  137.90  137.60  136.50  135.00  133.20  131.10
ELEV  36  129.00  126.90  124.60  122.90  122.10  122.00
ELEV  36  122.20  123.10  124.40  125.80  127.10  128.30
ELEV  36  129.60  130.90  132.10  133.20  133.90  134.70
ELEV  36  135.80  135.70  135.10  134.00  133.20  132.50
ELEV  37  131.00  131.70  132.30  132.30  132.40  132.50
ELEV  37  133.00  133.50  134.00  135.20  136.00  136.00
ELEV  37  136.00  135.70  134.60  133.10  131.30  129.40
ELEV  37  127.50  125.80  123.90  122.60  122.10  122.00
ELEV  37  122.20  122.80  123.80  125.00  126.20  127.50
ELEV  37  128.80  130.10  131.30  132.60  133.50  134.40
ELEV  37  135.50  135.30  134.50  133.20  132.20  131.40
ELEV  38  129.40  130.10  130.60  130.60  131.00  131.40
ELEV  38  131.60  131.70  131.80  133.00  133.80  133.80
ELEV  38  133.80  133.70  132.90  131.70  130.20  128.30
ELEV  38  126.70  125.20  123.30  122.20  122.00  122.00
ELEV  38  122.20  122.80  123.60  124.40  125.70  127.00
ELEV  38  128.20  129.50  130.80  132.10  133.20  134.30
ELEV  38  135.00  134.70  133.90  132.70  131.50  130.30
ELEV  39  128.20  128.80  129.30  129.30  129.60  130.00
ELEV  39  130.20  130.30  130.30  131.30  132.00  132.00
ELEV  39  132.00  131.80  131.00  130.00  128.80  127.10
ELEV  39  125.60  124.40  122.90  122.00  122.00  122.00
ELEV  39  122.20  122.80  123.50  124.20  125.20  126.30
ELEV  39  127.40  128.90  130.30  131.50  132.80  133.90
ELEV  39  134.50  134.00  133.10  131.80  130.50  129.20
ELEV  40  127.20  127.70  128.30  128.30  128.30  128.40
ELEV  40  129.00  129.30  129.30  129.90  130.40  130.40
ELEV  40  130.40  130.10  128.90  128.00  127.20  125.90
ELEV  40  124.60  123.30  122.50  122.00  122.00  122.00
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ELEV 40 126.30 128.10 129.70 131.00 132.30 133.30
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ELEV 42 132.20 131.10 129.80 128.50 126.90 125.00
HILL 1 123.20 123.50 124.20 126.40 128.00 129.30
HILL 1 130.40 131.60 132.90 133.30 132.90 131.10
HILL 1 129.30 127.40 125.00 123.30 122.10 122.50
HILL 1 122.80 122.80 122.80 123.00 123.70 123.80
HILL 1 123.50 122.50 122.10 122.00 122.00 121.90
HILL 1 121.70 120.00 117.40 113.90 111.30 109.30
HILL 1 122.00 122.00 116.00 120.20 122.40 123.60
HILL 2 122.70 122.80 123.50 125.80 127.60 129.10
HILL 2 130.40 131.60 132.90 133.80 133.70 132.20
HILL 2 130.40 128.40 126.20 124.50 123.20 123.50
HILL 2 123.60 123.60 123.60 123.80 124.20 124.10
HILL 2 123.60 122.40 122.00 122.00 122.00 122.00
HILL 2 122.00 121.10 119.30 116.50 114.60 112.80
HILL 2 110.90 111.90 114.00 121.00 119.90 121.90
HILL 3 122.20 122.60 123.40 125.40 127.30 129.10
HILL 3 130.40 131.60 132.90 134.10 134.50 133.70
HILL 3 132.00 130.20 128.70 127.00 125.30 124.90
HILL 3 124.70 124.70 124.70 124.70 124.80 124.40
HILL 3 123.60 122.40 122.00 122.00 122.00 122.00
HILL 3 122.00 121.80 120.70 118.60 118.00 117.10
HILL 3 115.20 114.30 113.90 114.10 116.40 119.70
HILL 4 122.30 122.90 123.80 125.70 127.40 129.10
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HILL 5 122.80 123.40 124.30 126.20 127.80 129.10
HILL 5 130.40 131.60 132.90 134.20 135.20 135.70
HILL 5 134.80 133.50 132.20 131.30 130.50 129.30
HILL 5 128.70 128.70 128.70 128.50 127.90 126.70
HILL 5 125.50 124.20 123.40 122.90 122.90 122.90
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HILL 6 135.70 134.70 133.70 133.00 132.30 131.30
HILL 6 130.70 130.40 130.40 130.10 129.50 128.10
HILL 6 126.70 125.70 124.70 123.90 123.60 123.10
HILL 6 122.50 122.20 122.00 122.00 122.00 122.10
HILL 6 122.40 122.50 122.10 120.50 119.10 117.90
HILL 7 122.80 124.00 125.20 126.50 127.80 129.10
HILL 7 131.00 132.60 133.90 134.60 135.50 136.80

HILL	7	136.50	135.90	135.20	134.60	133.90	133.30
HILL	7	132.70	132.00	132.00	131.80	131.10	129.40
HILL	7	127.90	127.20	126.10	124.90	124.30	123.20
HILL	7	122.00	122.00	122.00	122.00	122.00	122.20
HILL	7	122.90	123.00	122.90	122.20	121.20	120.00
HILL	8	122.80	124.00	125.30	126.90	128.40	129.70
HILL	8	131.20	132.60	133.90	134.90	135.90	136.80
HILL	8	137.10	136.90	136.30	135.70	135.10	134.80
HILL	8	134.30	133.70	133.30	132.80	132.20	131.10
HILL	8	129.80	128.50	127.20	125.90	125.00	123.60
HILL	8	122.00	122.00	122.00	122.00	122.00	122.20
HILL	8	122.90	123.30	123.50	123.20	122.30	121.10
HILL	9	122.80	124.00	125.50	127.30	128.80	130.20
HILL	9	131.50	132.70	134.00	135.30	136.40	137.00
HILL	9	137.70	138.00	137.40	136.80	136.30	136.20
HILL	9	135.90	135.30	134.70	134.10	133.50	132.80
HILL	9	131.80	130.00	128.50	127.20	125.80	124.10
HILL	9	122.30	122.20	122.10	122.00	122.10	122.30
HILL	9	123.10	123.80	124.30	124.30	123.50	122.20
HILL	10	122.80	124.30	125.90	127.40	129.10	130.70
HILL	10	132.00	133.30	134.50	135.80	137.00	138.10
HILL	10	138.50	138.60	138.30	138.10	137.90	137.50
HILL	10	137.10	136.90	136.70	136.30	135.60	135.00
HILL	10	134.10	132.60	131.20	129.80	127.70	125.80
HILL	10	123.90	123.50	122.90	122.10	122.40	123.10
HILL	10	124.60	125.40	125.90	125.90	125.10	123.80
HILL	11	122.70	124.40	126.30	127.70	129.40	131.30
HILL	11	132.70	134.00	135.30	136.50	137.80	138.90
HILL	11	139.20	139.20	139.20	139.20	139.10	138.60
HILL	11	138.30	138.30	138.40	138.10	137.60	137.00
HILL	11	136.20	135.00	133.80	132.30	130.00	128.00
HILL	11	126.20	125.50	124.30	122.70	123.30	124.50
HILL	11	126.30	127.20	127.70	127.60	126.70	125.40
HILL	12	122.20	124.10	126.30	128.10	129.90	131.80
HILL	12	133.60	135.10	136.30	137.60	138.70	139.60
HILL	12	139.70	139.70	139.70	139.70	139.70	139.50
HILL	12	139.40	139.40	139.40	139.40	139.20	138.60
HILL	12	137.90	137.10	135.90	134.60	133.00	131.40
HILL	12	130.00	128.90	127.10	124.40	125.60	127.10
HILL	12	128.50	129.40	129.80	129.30	128.30	127.00
HILL	13	122.00	124.10	126.60	128.50	130.60	132.60
HILL	13	134.60	136.20	137.70	138.70	139.50	140.10
HILL	13	140.30	140.30	140.30	140.30	140.30	140.30
HILL	13	140.30	140.30	140.30	140.30	140.30	139.70
HILL	13	139.10	138.60	137.80	136.80	135.50	134.40
HILL	13	133.30	132.10	130.40	135.00	128.90	130.10
HILL	13	131.10	131.70	131.90	131.30	130.20	128.80
HILL	14	122.00	124.30	127.20	129.10	131.30	133.70
HILL	14	135.60	137.50	139.30	139.60	140.00	140.70
HILL	14	140.80	140.80	140.80	140.80	140.80	140.80
HILL	14	140.80	140.80	140.80	140.80	140.80	140.30
HILL	14	139.80	139.60	139.40	139.00	137.70	136.70
HILL	14	136.00	135.20	134.30	133.10	133.30	133.70
HILL	14	133.90	134.10	134.10	133.40	132.40	130.90
HILL	15	122.90	125.10	127.70	129.90	132.10	134.50
HILL	15	136.40	138.20	139.90	140.00	140.20	140.90
HILL	15	141.00	141.10	141.30	141.20	141.00	141.00
HILL	15	141.00	141.00	141.00	141.00	141.00	140.60
HILL	15	140.30	140.30	140.30	140.20	139.10	138.40
HILL	15	138.00	137.60	137.20	136.70	136.70	136.70
HILL	15	136.70	136.50	136.20	135.30	134.20	132.70

HILL 16 124.40 126.20 128.40 130.80 133.00 135.00
HILL 16 136.90 138.60 139.90 140.00 140.20 140.90
HILL 16 141.00 141.10 141.70 141.50 141.00 141.00
HILL 16 141.00 141.00 141.00 141.00 141.00 140.90
HILL 16 140.90 140.90 140.90 140.80 140.10 139.70
HILL 16 139.60 139.60 139.50 139.40 139.40 139.40
HILL 16 139.40 139.00 138.30 137.10 135.80 134.30
HILL 17 125.50 127.30 129.30 131.60 133.60 135.50
HILL 17 137.20 138.60 139.90 140.00 140.20 140.90
HILL 17 141.00 141.20 141.80 141.80 141.40 141.40
HILL 17 141.40 141.40 141.20 141.00 141.00 141.00
HILL 17 141.00 141.00 141.00 140.90 140.60 140.40
HILL 17 140.40 140.40 140.40 140.40 140.70 140.70
HILL 17 140.10 139.70 139.20 137.90 136.60 135.10
HILL 18 126.50 128.40 130.30 132.20 134.20 136.00
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HILL 18 141.00 141.20 141.80 142.00 142.00 142.00
HILL 18 142.00 142.00 141.40 141.00 141.00 141.00
HILL 18 141.00 141.00 141.00 141.00 141.00 141.00
HILL 18 141.00 141.00 141.00 141.00 141.50 141.50
HILL 18 140.30 140.00 139.70 138.40 137.10 135.70
HILL 19 127.00 129.00 130.90 132.80 134.50 136.10
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HILL 19 141.00 141.20 141.80 142.00 142.00 142.00
HILL 19 142.00 142.00 141.70 141.50 141.50 141.50
HILL 19 141.50 141.50 141.50 141.60 141.90 142.00
HILL 19 142.00 142.30 142.50 142.50 142.80 142.60
HILL 19 141.30 141.00 140.90 140.20 139.60 138.90
HILL 20 127.50 129.40 131.40 133.30 134.80 136.20
HILL 20 138.10 139.30 140.00 140.00 140.20 140.90
HILL 20 141.00 141.20 141.80 142.00 142.00 142.00
HILL 20 142.00 142.00 142.00 142.00 142.00 142.00
HILL 20 142.00 142.00 142.00 142.10 142.80 143.00
HILL 20 143.10 143.70 144.00 144.00 144.00 143.60
HILL 20 142.40 142.10 142.10 142.10 142.10 142.00
HILL 21 127.40 129.40 131.40 133.30 135.00 136.70
HILL 21 138.60 139.70 140.00 140.00 140.20 140.90
HILL 21 141.00 141.20 141.80 142.00 142.00 142.00
HILL 21 142.00 142.00 142.00 142.00 142.00 142.30
HILL 21 142.60 142.60 142.60 142.70 143.30 143.60
HILL 21 143.60 144.20 144.60 144.60 144.60 144.40
HILL 21 143.90 143.80 143.80 143.80 143.50 143.20
HILL 22 127.40 129.40 131.40 133.40 135.30 137.20
HILL 22 139.10 140.00 140.00 140.00 140.20 140.90
HILL 22 141.00 141.20 141.80 142.00 142.00 142.00
HILL 22 142.00 142.00 142.00 142.00 142.00 142.50
HILL 22 142.90 142.90 142.90 143.00 143.60 143.90
HILL 22 143.90 144.40 144.80 144.90 144.90 144.90
HILL 22 145.10 145.10 145.10 145.10 144.70 144.10
HILL 23 127.40 129.40 131.40 133.80 135.90 137.80
HILL 23 139.30 140.00 140.00 140.00 140.20 140.90
HILL 23 141.00 141.20 141.80 142.00 142.00 142.00
HILL 23 142.00 142.00 142.00 142.00 142.00 142.20
HILL 23 142.30 142.30 142.30 142.40 143.10 143.30
HILL 23 143.30 143.50 143.90 144.30 144.30 144.60
HILL 23 145.50 145.70 145.70 145.70 145.30 144.70
HILL 24 127.10 129.30 131.50 133.90 136.00 137.90
HILL 24 139.30 140.00 140.00 140.00 140.20 140.90
HILL 24 141.00 141.20 141.80 142.00 142.00 142.00
HILL 24 142.00 142.00 142.00 141.90 141.80 141.80
HILL 24 141.80 141.80 141.80 141.90 142.50 142.80

HILL	24	142.80	142.80	143.00	143.50	143.70	144.20
HILL	24	145.30	145.60	145.60	145.70	145.60	145.20
HILL	25	126.50	129.10	131.40	133.50	135.40	137.40
HILL	25	139.10	140.00	140.00	140.00	140.20	140.90
HILL	25	141.00	141.20	141.80	142.00	142.00	142.00
HILL	25	142.00	142.00	142.00	141.80	141.30	141.20
HILL	25	141.20	141.20	141.20	141.30	142.00	142.20
HILL	25	142.20	142.20	142.30	142.50	142.90	143.50
HILL	25	144.30	144.50	144.60	145.10	145.50	145.80
HILL	26	125.40	128.30	131.10	133.00	134.90	136.80
HILL	26	138.70	139.80	140.00	140.00	140.20	140.90
HILL	26	141.00	141.20	141.80	141.90	141.70	141.70
HILL	26	141.70	141.70	141.70	141.40	140.80	140.70
HILL	26	140.70	140.70	140.70	140.80	141.20	141.40
HILL	26	141.40	141.40	141.40	141.40	142.00	142.60
HILL	26	143.00	143.10	143.20	143.70	144.20	144.90
HILL	27	124.00	127.20	130.50	132.40	134.40	136.30
HILL	27	138.20	139.40	140.00	140.00	140.20	140.90
HILL	27	141.00	141.20	141.80	141.60	141.20	141.20
HILL	27	141.20	141.20	141.20	140.90	140.30	140.20
HILL	27	140.20	140.20	140.20	140.20	140.30	140.30
HILL	27	140.30	140.30	140.30	140.30	140.90	141.40
HILL	27	141.50	141.50	141.50	141.60	142.10	142.70
HILL	28	124.20	127.30	130.40	132.30	134.20	136.10
HILL	28	137.80	139.10	139.90	140.00	140.20	140.90
HILL	28	141.00	141.10	141.50	141.40	141.00	141.00
HILL	28	141.00	141.00	140.80	140.30	139.40	139.00
HILL	28	138.90	138.90	138.90	138.90	139.10	139.20
HILL	28	139.30	139.50	139.60	139.60	140.20	140.60
HILL	28	140.60	140.60	140.60	140.60	140.90	141.30
HILL	29	125.20	127.80	130.40	132.30	134.20	136.10
HILL	29	137.40	138.70	139.90	140.00	140.20	140.90
HILL	29	141.00	141.00	141.10	141.00	141.00	141.00
HILL	29	141.00	141.00	140.40	139.60	138.30	137.70
HILL	29	137.20	137.20	137.20	137.30	137.90	138.20
HILL	29	138.20	138.80	139.10	139.10	139.70	140.10
HILL	29	140.10	140.10	140.10	140.10	140.10	140.20
HILL	30	126.90	129.10	131.20	132.80	134.50	136.10
HILL	30	137.40	138.60	139.90	140.00	140.20	140.90
HILL	30	141.00	141.00	141.00	141.00	141.00	140.70
HILL	30	140.50	140.50	139.30	138.00	136.40	135.40
HILL	30	134.80	135.10	135.40	135.70	136.40	136.80
HILL	30	137.10	137.70	138.20	138.50	139.10	139.50
HILL	30	139.50	139.50	139.50	139.50	139.40	139.10
HILL	31	128.70	130.40	132.20	133.50	134.80	136.10
HILL	31	137.40	138.60	139.90	140.00	140.20	140.90
HILL	31	141.00	141.00	141.00	141.00	140.90	140.30
HILL	31	140.00	140.00	138.10	136.20	134.30	132.90
HILL	31	132.20	132.80	133.50	134.10	134.70	135.40
HILL	31	136.00	136.70	137.30	137.90	138.60	139.00
HILL	31	139.00	139.00	139.00	139.00	138.60	137.90
HILL	32	130.50	131.80	133.30	134.20	135.30	136.60
HILL	32	137.90	139.00	139.90	140.00	140.20	140.90
HILL	32	141.00	140.90	140.60	140.50	140.40	139.70
HILL	32	138.90	137.90	136.00	133.70	131.10	129.10
HILL	32	128.10	129.80	131.00	132.00	133.00	134.00
HILL	32	134.90	135.60	136.20	136.90	137.50	137.90
HILL	32	137.90	137.90	137.90	137.90	137.50	136.90
HILL	33	132.10	133.10	134.20	134.80	135.80	137.10
HILL	33	138.30	139.20	139.90	140.00	140.20	140.80
HILL	33	140.90	140.80	140.10	139.80	139.70	138.90

HILL	33	137.40	135.50	133.40	131.00	128.00	125.50
HILL	33	124.50	127.00	128.60	130.00	131.20	132.50
HILL	33	133.80	134.50	135.10	135.80	136.40	136.90
HILL	33	136.90	136.90	136.90	136.90	136.40	135.80
HILL	34	133.10	133.90	134.70	135.40	136.20	137.10
HILL	34	137.90	138.70	139.30	139.70	140.10	140.30
HILL	34	140.40	140.20	139.60	138.80	137.90	136.10
HILL	34	134.00	131.70	129.00	133.00	124.60	123.40
HILL	34	123.30	125.00	126.70	128.30	129.60	130.90
HILL	34	132.20	133.20	134.00	134.70	135.30	135.90
HILL	34	136.30	136.40	136.30	135.90	135.30	134.70
HILL	35	133.50	134.20	134.80	135.30	135.80	136.40
HILL	35	137.00	137.70	138.30	139.00	139.50	139.50
HILL	35	139.50	139.30	138.60	137.40	135.90	133.50
HILL	35	131.00	128.60	125.60	123.30	122.20	122.00
HILL	35	122.30	123.50	125.10	126.90	128.10	129.40
HILL	35	130.70	132.00	133.00	133.80	134.40	135.10
HILL	35	135.80	135.90	135.70	134.90	134.30	133.60
HILL	36	132.30	133.10	133.60	133.80	134.00	134.20
HILL	36	134.90	135.50	136.10	137.20	137.90	137.90
HILL	36	137.90	137.60	136.50	135.00	133.20	131.10
HILL	36	129.00	126.90	124.60	122.90	122.10	122.00
HILL	36	122.20	123.10	124.40	125.80	127.10	128.30
HILL	36	129.60	130.90	132.10	133.20	133.90	134.70
HILL	36	135.80	135.70	135.10	134.00	133.20	132.50
HILL	37	131.00	131.70	132.30	132.30	132.40	132.50
HILL	37	133.00	133.50	134.00	135.20	136.00	136.00
HILL	37	136.00	135.70	134.60	133.10	131.30	129.40
HILL	37	127.50	125.80	123.90	122.60	122.10	122.00
HILL	37	122.20	122.80	123.80	125.00	126.20	127.50
HILL	37	128.80	130.10	131.30	132.60	133.50	134.40
HILL	37	135.50	135.30	134.50	133.20	132.20	131.40
HILL	38	129.40	130.10	130.60	130.60	131.00	131.40
HILL	38	131.60	131.70	131.80	133.00	133.80	133.80
HILL	38	133.80	133.70	132.90	131.70	130.20	128.30
HILL	38	126.70	125.20	123.30	122.20	122.00	122.00
HILL	38	122.20	122.80	123.60	124.40	125.70	127.00
HILL	38	128.20	129.50	130.80	132.10	133.20	134.30
HILL	38	135.00	134.70	133.90	132.70	131.50	130.30
HILL	39	128.20	128.80	129.30	129.30	129.60	130.00
HILL	39	130.20	130.30	130.30	131.30	132.00	132.00
HILL	39	132.00	131.80	131.00	130.00	128.80	127.10
HILL	39	125.60	124.40	122.90	122.00	122.00	122.00
HILL	39	122.20	122.80	123.50	124.20	125.20	126.30
HILL	39	127.40	128.90	130.30	131.50	132.80	133.90
HILL	39	134.50	134.00	133.10	131.80	130.50	129.20
HILL	40	127.20	127.70	128.30	128.30	128.30	128.40
HILL	40	129.00	129.30	129.30	129.90	130.40	130.40
HILL	40	130.40	130.10	128.90	128.00	127.20	125.90
HILL	40	124.60	123.30	122.50	122.00	122.00	122.00
HILL	40	122.20	122.80	123.50	124.10	124.80	125.60
HILL	40	126.30	128.10	129.70	131.00	132.30	133.30
HILL	40	134.00	133.20	132.00	130.70	129.40	128.10
HILL	41	126.50	126.90	127.20	127.20	127.20	127.20
HILL	41	127.60	127.60	127.40	127.90	128.40	128.70
HILL	41	128.60	128.20	127.40	126.70	126.10	125.10
HILL	41	124.00	123.00	122.40	122.00	122.00	122.00
HILL	41	122.20	122.80	123.30	123.60	124.00	124.60
HILL	41	125.20	127.40	129.30	130.80	132.20	133.00
HILL	41	133.10	132.20	130.90	129.60	128.20	126.60
HILL	42	125.90	126.10	126.10	126.10	126.10	126.10

```
                HILL   42   126.10   125.80   125.20   125.80   126.40   127.00
                HILL   42   126.70   126.20   126.10   125.70   125.00   124.40
                HILL   42   123.70   123.00   122.40   122.00   122.00   122.00
                HILL   42   122.20   122.80   123.00   123.10   123.10   123.50
                HILL   42   124.20   126.70   128.90   130.80   132.20   132.80
                HILL   42   132.20   131.10   129.80   128.50   126.90   125.00
  GRIDCART UCART1 END
** DESCRREC "" ""
  DISCCART    498707.31   3603388.95  142.00  142.00
  DISCCART    498738.50   3603361.83  142.00  142.00
  DISCCART    498762.45   3603361.38  142.00  142.00
  DISCCART    498791.37   3603361.83  142.00  142.00
  DISCCART    498803.12   3603387.14  142.00  142.00
  DISCCART    498821.20   3603319.80  142.00  142.00
  DISCCART    498788.21   3603307.60  142.00  142.00
  DISCCART    498758.38   3603309.86  142.00  142.00
  DISCCART    498737.14   3603308.50  142.00  142.00
  DISCCART    498711.83   3603309.86  142.00  142.00
  DISCCART    498701.89   3603334.72  142.00  142.00
  DISCCART    498746.18   3603289.52  142.00  142.00
  DISCCART    498771.04   3603290.43  142.00  142.00
  DISCCART    498773.30   3603271.00  142.00  142.00
  DISCCART    498821.20   3603276.87  142.00  142.00
  DISCCART    498816.68   3603255.63  142.00  142.00
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
  SURFFILE "N:\AIR_GHG_NOISE_Technical\001_AIR\Meterological\Chula Vista\ChulaVista_2010-2012_v14134.sfc"
  PROFFILE "N:\AIR_GHG_NOISE_Technical\001_AIR\Meterological\Chula Vista\ChulaVista_2010-2012_v14134.pfl"
  SURFDATA 23188 2010 CHULA_VISTA
  UAIRDATA 3190 2010
  SITEDATA 1 2010
  PROFBASE 49.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
  PLOTFILE ANNUAL ALL PA61.AD\AN00GALL.PLT 31
  SUMMFILE PA61.sum
OU FINISHED


 *** Message Summary For AERMOD Model Setup ***

 --------- Summary of Total Messages --------

A Total of          0 Fatal Error Message(s)
A Total of          2 Warning Message(s)
A Total of          0 Informational Message(s)
```

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
CO W320 22 URBOPT: Input Parameter May Be Out-of-Range for Parameter URB-POP
RE W213 1166 RECART: ELEV Input Inconsistent With Option: Input Ignored UCART1

****
*** SETUP Finishes Successfully ***
****

*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** *** 12:39:53
PAGE 1
*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** MODEL SETUP OPTIONS SUMMARY ***
- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 245 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 3000.0 ; Urban Roughness Length = 1.000 m

**Model Allows User-Specified Options:
1. Stack-tip Downwash.
2. Allow FLAT/ELEV Terrain Option by Source,
with 0 FLAT and 245 ELEV Source(s).
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Used.

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM_2.5

**Model Calculates ANNUAL Averages Only

**This Run Includes: 245 Source(s); 1 Source Group(s); and 1780 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 245 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 15181

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 49.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.8 MB of RAM.

**Detailed Error/Message File: PA61.err
**File for Summary of Results: PA61.sum
*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** *** 12:39:53

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.23030E-05	497900.1	3603469.2	128.1	3.63	3.93	3.38	YES	
L0000002	0	0.23030E-05	497908.4	3603467.7	128.5	3.63	3.93	3.38	YES	
L0000003	0	0.23030E-05	497916.7	3603466.3	128.9	3.63	3.93	3.38	YES	
L0000004	0	0.23030E-05	497925.0	3603464.8	129.2	3.63	3.93	3.38	YES	
L0000005	0	0.23030E-05	497933.3	3603463.3	129.6	3.63	3.93	3.38	YES	
L0000006	0	0.23030E-05	497941.6	3603461.8	130.0	3.63	3.93	3.38	YES	
L0000007	0	0.23030E-05	497950.0	3603460.3	130.3	3.63	3.93	3.38	YES	
L0000008	0	0.23030E-05	497958.3	3603458.8	130.7	3.63	3.93	3.38	YES	
L0000009	0	0.23030E-05	497966.6	3603457.4	131.0	3.63	3.93	3.38	YES	
L0000010	0	0.23030E-05	497974.8	3603455.5	131.4	3.63	3.93	3.38	YES	
L0000011	0	0.23030E-05	497983.0	3603453.4	131.8	3.63	3.93	3.38	YES	
L0000012	0	0.23030E-05	497991.1	3603451.2	132.2	3.63	3.93	3.38	YES	
L0000013	0	0.23030E-05	497999.3	3603449.1	132.6	3.63	3.93	3.38	YES	
L0000014	0	0.23030E-05	498007.4	3603446.9	133.0	3.63	3.93	3.38	YES	
L0000015	0	0.23030E-05	498015.6	3603444.8	133.5	3.63	3.93	3.38	YES	
L0000016	0	0.23030E-05	498023.8	3603442.6	133.9	3.63	3.93	3.38	YES	
L0000017	0	0.23030E-05	498031.9	3603440.3	134.3	3.63	3.93	3.38	YES	
L0000018	0	0.23030E-05	498039.9	3603437.8	134.7	3.63	3.93	3.38	YES	
L0000019	0	0.23030E-05	498048.0	3603435.4	135.1	3.63	3.93	3.38	YES	
L0000020	0	0.23030E-05	498056.1	3603433.0	135.4	3.63	3.93	3.38	YES	
L0000021	0	0.23030E-05	498064.2	3603430.5	135.7	3.63	3.93	3.38	YES	
L0000022	0	0.23030E-05	498072.3	3603428.1	136.0	3.63	3.93	3.38	YES	
L0000023	0	0.23030E-05	498080.3	3603425.5	136.3	3.63	3.93	3.38	YES	
L0000024	0	0.23030E-05	498088.3	3603422.7	136.6	3.63	3.93	3.38	YES	
L0000025	0	0.23030E-05	498096.2	3603419.9	136.8	3.63	3.93	3.38	YES	
L0000026	0	0.23030E-05	498104.2	3603417.2	137.1	3.63	3.93	3.38	YES	
L0000027	0	0.23030E-05	498112.2	3603414.4	137.4	3.63	3.93	3.38	YES	
L0000028	0	0.23030E-05	498120.2	3603411.6	137.7	3.63	3.93	3.38	YES	
L0000029	0	0.23030E-05	498128.1	3603408.8	137.9	3.63	3.93	3.38	YES	
L0000030	0	0.23030E-05	498135.9	3603405.5	138.1	3.63	3.93	3.38	YES	

L0000031	0	0.23030E-05	498143.6	3603402.1	138.3	3.63	3.93	3.38	YES
L0000032	0	0.23030E-05	498151.4	3603398.8	138.5	3.63	3.93	3.38	YES
L0000033	0	0.23030E-05	498159.1	3603395.5	138.7	3.63	3.93	3.38	YES
L0000034	0	0.23030E-05	498166.9	3603392.2	138.9	3.63	3.93	3.38	YES
L0000035	0	0.23030E-05	498174.7	3603388.9	139.2	3.63	3.93	3.38	YES
L0000036	0	0.23030E-05	498182.4	3603385.5	139.4	3.63	3.93	3.38	YES
L0000037	0	0.23030E-05	498190.2	3603382.3	139.7	3.63	3.93	3.38	YES
L0000038	0	0.23030E-05	498198.0	3603379.2	139.9	3.63	3.93	3.38	YES
L0000039	0	0.23030E-05	498205.9	3603376.0	140.0	3.63	3.93	3.38	YES
L0000040	0	0.23030E-05	498213.7	3603372.9	140.0	3.63	3.93	3.38	YES

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000041	0	0.23030E-05	498221.5	3603369.7	140.0	3.63	3.93	3.38	YES	
L0000042	0	0.23030E-05	498229.4	3603366.6	140.0	3.63	3.93	3.38	YES	
L0000043	0	0.23030E-05	498237.2	3603363.5	140.0	3.63	3.93	3.38	YES	
L0000044	0	0.23030E-05	498245.0	3603360.3	140.0	3.63	3.93	3.38	YES	
L0000045	0	0.23030E-05	498252.9	3603357.2	140.0	3.63	3.93	3.38	YES	
L0000046	0	0.23030E-05	498260.7	3603354.0	140.0	3.63	3.93	3.38	YES	
L0000047	0	0.23030E-05	498268.5	3603350.9	140.0	3.63	3.93	3.38	YES	
L0000048	0	0.23030E-05	498276.4	3603347.8	140.0	3.63	3.93	3.38	YES	
L0000049	0	0.23030E-05	498284.2	3603344.6	140.0	3.63	3.93	3.38	YES	
L0000050	0	0.23030E-05	498292.1	3603341.5	140.0	3.63	3.93	3.38	YES	
L0000051	0	0.23030E-05	498299.9	3603338.3	140.0	3.63	3.93	3.38	YES	
L0000052	0	0.23030E-05	498307.7	3603335.2	140.0	3.63	3.93	3.38	YES	
L0000053	0	0.23030E-05	498315.6	3603332.1	140.0	3.63	3.93	3.38	YES	
L0000054	0	0.23030E-05	498323.4	3603329.0	140.0	3.63	3.93	3.38	YES	
L0000055	0	0.23030E-05	498331.3	3603326.0	140.0	3.63	3.93	3.38	YES	
L0000056	0	0.23030E-05	498339.2	3603323.0	140.0	3.63	3.93	3.38	YES	
L0000057	0	0.23030E-05	498347.1	3603320.0	140.0	3.63	3.93	3.38	YES	
L0000058	0	0.23030E-05	498355.0	3603317.0	140.0	3.63	3.93	3.38	YES	
L0000059	0	0.23030E-05	498362.8	3603313.9	140.1	3.63	3.93	3.38	YES	
L0000060	0	0.23030E-05	498370.7	3603310.9	140.2	3.63	3.93	3.38	YES	
L0000061	0	0.23030E-05	498378.6	3603307.9	140.3	3.63	3.93	3.38	YES	
L0000062	0	0.23030E-05	498386.5	3603304.9	140.4	3.63	3.93	3.38	YES	
L0000063	0	0.23030E-05	498394.4	3603301.9	140.5	3.63	3.93	3.38	YES	
L0000064	0	0.23030E-05	498402.3	3603298.8	140.6	3.63	3.93	3.38	YES	
L0000065	0	0.23030E-05	498410.1	3603295.8	140.7	3.63	3.93	3.38	YES	
L0000066	0	0.23030E-05	498418.0	3603292.8	140.8	3.63	3.93	3.38	YES	
L0000067	0	0.23030E-05	498425.9	3603289.8	140.9	3.63	3.93	3.38	YES	
L0000068	0	0.23030E-05	498433.7	3603286.7	141.0	3.63	3.93	3.38	YES	
L0000069	0	0.23030E-05	498441.6	3603283.5	141.0	3.63	3.93	3.38	YES	
L0000070	0	0.23030E-05	498449.4	3603280.4	141.0	3.63	3.93	3.38	YES	
L0000071	0	0.23030E-05	498457.2	3603277.2	141.0	3.63	3.93	3.38	YES	
L0000072	0	0.23030E-05	498465.1	3603274.0	141.0	3.63	3.93	3.38	YES	
L0000073	0	0.23030E-05	498472.9	3603270.9	141.0	3.63	3.93	3.38	YES	
L0000074	0	0.23030E-05	498480.7	3603267.7	141.0	3.63	3.93	3.38	YES	
L0000075	0	0.23030E-05	498488.5	3603264.6	141.0	3.63	3.93	3.38	YES	
L0000076	0	0.23030E-05	498496.4	3603261.4	141.0	3.63	3.93	3.38	YES	
L0000077	0	0.23030E-05	498504.2	3603258.3	141.0	3.63	3.93	3.38	YES	
L0000078	0	0.23030E-05	498512.0	3603255.1	141.0	3.63	3.93	3.38	YES	

L0000079	0	0.23030E-05	498519.8	3603252.0	141.1	3.63	3.93	3.38	YES
L0000080	0	0.23030E-05	498527.7	3603248.8	141.2	3.63	3.93	3.38	YES

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000081	0	0.23030E-05	498535.5	3603245.6	141.3	3.63	3.93	3.38	YES	
L0000082	0	0.23030E-05	498543.3	3603242.5	141.4	3.63	3.93	3.38	YES	
L0000083	0	0.23030E-05	498551.2	3603239.3	141.5	3.63	3.93	3.38	YES	
L0000084	0	0.23030E-05	498559.0	3603236.2	141.6	3.63	3.93	3.38	YES	
L0000085	0	0.23030E-05	498567.0	3603233.4	141.7	3.63	3.93	3.38	YES	
L0000086	0	0.23030E-05	498575.0	3603230.8	141.8	3.63	3.93	3.38	YES	
L0000087	0	0.23030E-05	498583.0	3603228.2	141.9	3.63	3.93	3.38	YES	
L0000088	0	0.23030E-05	498591.0	3603225.5	142.0	3.63	3.93	3.38	YES	
L0000089	0	0.23030E-05	498599.0	3603222.9	142.0	3.63	3.93	3.38	YES	
L0000090	0	0.23030E-05	498607.1	3603220.3	142.0	3.63	3.93	3.38	YES	
L0000091	0	0.23030E-05	498615.1	3603217.7	142.0	3.63	3.93	3.38	YES	
L0000092	0	0.23030E-05	498623.1	3603215.0	142.0	3.63	3.93	3.38	YES	
L0000093	0	0.23030E-05	498631.2	3603212.8	142.0	3.63	3.93	3.38	YES	
L0000094	0	0.23030E-05	498639.4	3603210.8	142.0	3.63	3.93	3.38	YES	
L0000095	0	0.23030E-05	498647.6	3603208.8	142.0	3.63	3.93	3.38	YES	
L0000096	0	0.23030E-05	498655.8	3603206.8	142.0	3.63	3.93	3.38	YES	
L0000097	0	0.23030E-05	498664.0	3603204.8	142.0	3.63	3.93	3.38	YES	
L0000098	0	0.23030E-05	498672.2	3603202.8	142.0	3.63	3.93	3.38	YES	
L0000099	0	0.23030E-05	498680.4	3603200.8	142.0	3.63	3.93	3.38	YES	
L0000100	0	0.23030E-05	498688.6	3603198.8	142.0	3.63	3.93	3.38	YES	
L0000101	0	0.23030E-05	498696.8	3603196.8	142.0	3.63	3.93	3.38	YES	
L0000102	0	0.23030E-05	498705.0	3603194.8	142.0	3.63	3.93	3.38	YES	
L0000103	0	0.23030E-05	498713.2	3603192.8	142.0	3.63	3.93	3.38	YES	
L0000104	0	0.23030E-05	498721.4	3603190.8	142.0	3.63	3.93	3.38	YES	
L0000105	0	0.23030E-05	498729.8	3603190.0	142.0	3.63	3.93	3.38	YES	
L0000106	0	0.23030E-05	498738.2	3603189.2	142.0	3.63	3.93	3.38	YES	
L0000107	0	0.23030E-05	498746.6	3603188.5	142.0	3.63	3.93	3.38	YES	
L0000108	0	0.23030E-05	498755.0	3603187.7	142.0	3.63	3.93	3.38	YES	
L0000109	0	0.23030E-05	498763.5	3603186.9	142.0	3.63	3.93	3.38	YES	
L0000110	0	0.23030E-05	498771.9	3603186.2	142.0	3.63	3.93	3.38	YES	
L0000111	0	0.23030E-05	498780.3	3603185.4	142.0	3.63	3.93	3.38	YES	
L0000112	0	0.23030E-05	498788.7	3603184.7	142.0	3.63	3.93	3.38	YES	
L0000113	0	0.23030E-05	498797.1	3603184.1	142.0	3.63	3.93	3.38	YES	
L0000114	0	0.23030E-05	498805.5	3603183.7	142.0	3.63	3.93	3.38	YES	
L0000115	0	0.23030E-05	498814.0	3603183.3	142.0	3.63	3.93	3.38	YES	
L0000116	0	0.23030E-05	498822.4	3603182.9	142.0	3.63	3.93	3.38	YES	
L0000117	0	0.23030E-05	498830.8	3603182.5	142.0	3.63	3.93	3.38	YES	
L0000118	0	0.23030E-05	498839.2	3603182.1	141.9	3.63	3.93	3.38	YES	
L0000119	0	0.23030E-05	498847.7	3603181.7	141.8	3.63	3.93	3.38	YES	
L0000120	0	0.23030E-05	498856.1	3603181.3	141.7	3.63	3.93	3.38	YES	

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000121	0	0.23030E-05	498864.5	3603181.4	141.6	3.63	3.93	3.38	YES	
L0000122	0	0.23030E-05	498873.0	3603181.8	141.6	3.63	3.93	3.38	YES	
L0000123	0	0.23030E-05	498881.4	3603182.2	141.5	3.63	3.93	3.38	YES	
L0000124	0	0.23030E-05	498889.8	3603182.6	141.4	3.63	3.93	3.38	YES	
L0000125	0	0.23030E-05	498898.3	3603183.0	141.3	3.63	3.93	3.38	YES	
L0000126	0	0.23030E-05	498906.7	3603183.4	141.3	3.63	3.93	3.38	YES	
L0000127	0	0.23030E-05	498915.1	3603183.8	141.3	3.63	3.93	3.38	YES	
L0000128	0	0.23030E-05	498923.6	3603184.2	141.3	3.63	3.93	3.38	YES	
L0000129	0	0.23030E-05	498932.0	3603184.6	141.3	3.63	3.93	3.38	YES	
L0000130	0	0.23030E-05	498940.4	3603185.0	141.3	3.63	3.93	3.38	YES	
L0000131	0	0.23030E-05	498948.8	3603185.4	141.3	3.63	3.93	3.38	YES	
L0000132	0	0.23030E-05	498957.3	3603186.0	141.3	3.63	3.93	3.38	YES	
L0000133	0	0.23030E-05	498965.7	3603186.7	141.3	3.63	3.93	3.38	YES	
L0000134	0	0.23030E-05	498974.1	3603187.5	141.3	3.63	3.93	3.38	YES	
L0000135	0	0.23030E-05	498982.5	3603188.2	141.3	3.63	3.93	3.38	YES	
L0000136	0	0.23030E-05	498990.9	3603188.9	141.4	3.63	3.93	3.38	YES	
L0000137	0	0.23030E-05	498999.3	3603189.6	141.4	3.63	3.93	3.38	YES	
L0000138	0	0.23030E-05	499007.7	3603190.4	141.4	3.63	3.93	3.38	YES	
L0000139	0	0.23030E-05	499016.1	3603191.1	141.4	3.63	3.93	3.38	YES	
L0000140	0	0.23030E-05	499024.5	3603191.8	141.4	3.63	3.93	3.38	YES	
L0000141	0	0.23030E-05	499032.9	3603192.5	141.4	3.63	3.93	3.38	YES	
L0000142	0	0.23030E-05	499041.3	3603193.3	141.4	3.63	3.93	3.38	YES	
L0000143	0	0.23030E-05	499049.8	3603194.0	141.4	3.63	3.93	3.38	YES	
L0000144	0	0.23030E-05	499058.2	3603194.7	141.4	3.63	3.93	3.38	YES	
L0000145	0	0.23030E-05	499066.6	3603195.5	141.4	3.63	3.93	3.38	YES	
L0000146	0	0.23030E-05	499075.0	3603196.2	141.4	3.63	3.93	3.38	YES	
L0000147	0	0.23030E-05	499083.4	3603196.9	141.4	3.63	3.93	3.38	YES	
L0000148	0	0.23030E-05	499091.8	3603197.6	141.4	3.63	3.93	3.38	YES	
L0000149	0	0.23030E-05	499100.2	3603198.4	141.5	3.63	3.93	3.38	YES	
L0000150	0	0.23030E-05	499108.6	3603199.1	141.5	3.63	3.93	3.38	YES	
L0000151	0	0.23030E-05	499117.0	3603199.8	141.5	3.63	3.93	3.38	YES	
L0000152	0	0.23030E-05	499125.4	3603200.5	141.5	3.63	3.93	3.38	YES	
L0000153	0	0.23030E-05	499133.8	3603201.3	141.5	3.63	3.93	3.38	YES	
L0000154	0	0.23030E-05	499142.2	3603202.0	141.5	3.63	3.93	3.38	YES	
L0000155	0	0.23030E-05	499150.7	3603202.7	141.5	3.63	3.93	3.38	YES	
L0000156	0	0.23030E-05	499159.1	3603203.4	141.5	3.63	3.93	3.38	YES	
L0000157	0	0.23030E-05	499167.5	3603204.2	141.5	3.63	3.93	3.38	YES	
L0000158	0	0.23030E-05	499175.9	3603204.9	141.5	3.63	3.93	3.38	YES	
L0000159	0	0.23030E-05	499184.3	3603205.6	141.5	3.63	3.93	3.38	YES	
L0000160	0	0.23030E-05	499192.7	3603206.3	141.5	3.63	3.93	3.38	YES	

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*** VOLUME SOURCE DATA ***

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L0000161	0	0.23030E-05	499201.1	3603207.0	141.5	3.63	3.93	3.38	YES	

L0000162	0	0.23030E-05	499209.5	3603207.7	141.6	3.63	3.93	3.38	YES
L0000163	0	0.23030E-05	499217.9	3603208.4	141.6	3.63	3.93	3.38	YES
L0000164	0	0.23030E-05	499226.3	3603209.1	141.6	3.63	3.93	3.38	YES
L0000165	0	0.23030E-05	499234.8	3603209.8	141.7	3.63	3.93	3.38	YES
L0000166	0	0.23030E-05	499243.2	3603210.5	141.8	3.63	3.93	3.38	YES
L0000167	0	0.23030E-05	499251.6	3603211.2	141.8	3.63	3.93	3.38	YES
L0000168	0	0.23030E-05	499260.0	3603212.0	141.9	3.63	3.93	3.38	YES
L0000169	0	0.23030E-05	499268.4	3603212.7	142.0	3.63	3.93	3.38	YES
L0000170	0	0.23030E-05	499276.8	3603213.4	142.1	3.63	3.93	3.38	YES
L0000171	0	0.23030E-05	499285.2	3603214.1	142.2	3.63	3.93	3.38	YES
L0000172	0	0.23030E-05	499293.6	3603214.8	142.2	3.63	3.93	3.38	YES
L0000173	0	0.23030E-05	499302.0	3603215.5	142.3	3.63	3.93	3.38	YES
L0000174	0	0.23030E-05	499310.5	3603216.2	142.3	3.63	3.93	3.38	YES
L0000175	0	0.23030E-05	499318.9	3603216.9	142.3	3.63	3.93	3.38	YES
L0000176	0	0.23030E-05	499327.3	3603217.6	142.3	3.63	3.93	3.38	YES
L0000177	0	0.23030E-05	499335.7	3603218.3	142.3	3.63	3.93	3.38	YES
L0000178	0	0.23030E-05	499344.1	3603219.0	142.4	3.63	3.93	3.38	YES
L0000179	0	0.23030E-05	499352.5	3603219.7	142.4	3.63	3.93	3.38	YES
L0000180	0	0.23030E-05	499360.9	3603220.5	142.4	3.63	3.93	3.38	YES
L0000181	0	0.23030E-05	499369.3	3603221.4	142.4	3.63	3.93	3.38	YES
L0000182	0	0.23030E-05	499377.7	3603222.2	142.5	3.63	3.93	3.38	YES
L0000183	0	0.23030E-05	499386.1	3603223.0	142.5	3.63	3.93	3.38	YES
L0000184	0	0.23030E-05	499394.5	3603223.9	142.6	3.63	3.93	3.38	YES
L0000185	0	0.23030E-05	499402.9	3603224.7	142.7	3.63	3.93	3.38	YES
L0000186	0	0.23030E-05	499411.3	3603225.5	142.8	3.63	3.93	3.38	YES
L0000187	0	0.23030E-05	499419.7	3603226.3	142.9	3.63	3.93	3.38	YES
L0000188	0	0.23030E-05	499428.1	3603227.2	143.1	3.63	3.93	3.38	YES
L0000189	0	0.23030E-05	499436.5	3603228.0	143.2	3.63	3.93	3.38	YES
L0000190	0	0.23030E-05	499444.9	3603228.5	143.2	3.63	3.93	3.38	YES
L0000191	0	0.23030E-05	499453.3	3603228.5	143.3	3.63	3.93	3.38	YES
L0000192	0	0.23030E-05	499461.8	3603228.5	143.3	3.63	3.93	3.38	YES
L0000193	0	0.23030E-05	499470.2	3603228.5	143.3	3.63	3.93	3.38	YES
L0000194	0	0.23030E-05	499478.7	3603228.5	143.3	3.63	3.93	3.38	YES
L0000195	0	0.23030E-05	499487.1	3603228.5	143.3	3.63	3.93	3.38	YES
L0000196	0	0.23030E-05	499495.5	3603228.5	143.3	3.63	3.93	3.38	YES
L0000197	0	0.23030E-05	499504.0	3603228.5	143.3	3.63	3.93	3.38	YES
L0000198	0	0.23030E-05	499512.4	3603228.5	143.3	3.63	3.93	3.38	YES
L0000199	0	0.23030E-05	499520.9	3603228.5	143.3	3.63	3.93	3.38	YES
L0000200	0	0.23030E-05	499529.3	3603228.4	143.3	3.63	3.93	3.38	YES

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000201	0	0.23030E-05	499537.7	3603228.0	143.3	3.63	3.93	3.38	YES	
L0000202	0	0.23030E-05	499546.2	3603227.6	143.3	3.63	3.93	3.38	YES	
L0000203	0	0.23030E-05	499554.6	3603227.1	143.4	3.63	3.93	3.38	YES	
L0000204	0	0.23030E-05	499563.0	3603226.7	143.4	3.63	3.93	3.38	YES	
L0000205	0	0.23030E-05	499571.5	3603226.3	143.4	3.63	3.93	3.38	YES	
L0000206	0	0.23030E-05	499579.9	3603225.8	143.4	3.63	3.93	3.38	YES	
L0000207	0	0.23030E-05	499588.3	3603225.4	143.4	3.63	3.93	3.38	YES	
L0000208	0	0.23030E-05	499596.7	3603224.4	143.4	3.63	3.93	3.38	YES	
L0000209	0	0.23030E-05	499605.0	3603222.9	143.4	3.63	3.93	3.38	YES	

L0000210	0	0.23030E-05	499613.3	3603221.5	143.3	3.63	3.93	3.38	YES
L0000211	0	0.23030E-05	499621.6	3603220.0	143.0	3.63	3.93	3.38	YES
L0000212	0	0.23030E-05	499629.9	3603218.5	142.8	3.63	3.93	3.38	YES
L0000213	0	0.23030E-05	499638.2	3603216.8	142.6	3.63	3.93	3.38	YES
L0000214	0	0.23030E-05	499646.4	3603214.9	142.3	3.63	3.93	3.38	YES
L0000215	0	0.23030E-05	499654.6	3603213.0	142.1	3.63	3.93	3.38	YES
L0000216	0	0.23030E-05	499662.8	3603211.1	141.8	3.63	3.93	3.38	YES
L0000217	0	0.23030E-05	499671.1	3603209.1	141.5	3.63	3.93	3.38	YES
L0000218	0	0.23030E-05	499679.3	3603207.2	141.3	3.63	3.93	3.38	YES
L0000219	0	0.23030E-05	499687.5	3603205.3	141.1	3.63	3.93	3.38	YES
L0000220	0	0.23030E-05	499695.7	3603203.4	141.0	3.63	3.93	3.38	YES
L0000221	0	0.23030E-05	499704.0	3603201.6	141.0	3.63	3.93	3.38	YES
L0000222	0	0.23030E-05	499712.2	3603199.7	140.9	3.63	3.93	3.38	YES
L0000223	0	0.23030E-05	499720.4	3603197.9	140.9	3.63	3.93	3.38	YES
L0000224	0	0.23030E-05	499728.7	3603196.0	140.9	3.63	3.93	3.38	YES
L0000225	0	0.23030E-05	499736.9	3603194.1	140.8	3.63	3.93	3.38	YES
L0000226	0	0.23030E-05	499745.1	3603192.3	140.8	3.63	3.93	3.38	YES
L0000227	0	0.23030E-05	499753.4	3603190.4	140.7	3.63	3.93	3.38	YES
L0000228	0	0.23030E-05	499761.2	3603187.3	140.7	3.63	3.93	3.38	YES
L0000229	0	0.23030E-05	499768.9	3603183.9	140.5	3.63	3.93	3.38	YES
L0000230	0	0.23030E-05	499776.6	3603180.5	140.3	3.63	3.93	3.38	YES
L0000231	0	0.23030E-05	499784.3	3603177.1	140.1	3.63	3.93	3.38	YES
L0000232	0	0.23030E-05	499792.1	3603173.7	139.8	3.63	3.93	3.38	YES
L0000233	0	0.23030E-05	499799.8	3603170.3	139.5	3.63	3.93	3.38	YES
L0000234	0	0.23030E-05	499807.5	3603166.8	139.2	3.63	3.93	3.38	YES
L0000235	0	0.23030E-05	499815.2	3603163.4	139.0	3.63	3.93	3.38	YES
L0000236	0	0.23030E-05	499822.9	3603160.0	138.7	3.63	3.93	3.38	YES
L0000237	0	0.23030E-05	499830.6	3603156.6	138.3	3.63	3.93	3.38	YES
L0000238	0	0.23030E-05	499838.4	3603153.2	138.1	3.63	3.93	3.38	YES
L0000239	0	0.23030E-05	499846.1	3603149.8	137.9	3.63	3.93	3.38	YES
L0000240	0	0.23030E-05	499853.8	3603146.4	137.6	3.63	3.93	3.38	YES

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	BASE Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000241	0	0.23030E-05	499861.5	3603143.0	137.4	3.63	3.93	3.38	YES	
L0000242	0	0.23030E-05	499869.3	3603139.6	137.2	3.63	3.93	3.38	YES	
L0000243	0	0.23030E-05	499877.0	3603136.2	136.9	3.63	3.93	3.38	YES	
L0000244	0	0.23030E-05	499884.7	3603132.8	136.7	3.63	3.93	3.38	YES	
L0000245	0	0.23030E-05	499892.4	3603129.4	136.5	3.63	3.93	3.38	YES	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

ALL L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,
L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,
L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,
L0000057 , L0000058 , L0000059 , L0000060 , L0000061 , L0000062 , L0000063 , L0000064 ,
L0000065 , L0000066 , L0000067 , L0000068 , L0000069 , L0000070 , L0000071 , L0000072 ,
L0000073 , L0000074 , L0000075 , L0000076 , L0000077 , L0000078 , L0000079 , L0000080 ,
L0000081 , L0000082 , L0000083 , L0000084 , L0000085 , L0000086 , L0000087 , L0000088 ,
L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 ,
L0000097 , L0000098 , L0000099 , L0000100 , L0000101 , L0000102 , L0000103 , L0000104 ,
L0000105 , L0000106 , L0000107 , L0000108 , L0000109 , L0000110 , L0000111 , L0000112 ,
L0000113 , L0000114 , L0000115 , L0000116 , L0000117 , L0000118 , L0000119 , L0000120 ,
L0000121 , L0000122 , L0000123 , L0000124 , L0000125 , L0000126 , L0000127 , L0000128 ,
L0000129 , L0000130 , L0000131 , L0000132 , L0000133 , L0000134 , L0000135 , L0000136 ,
L0000137 , L0000138 , L0000139 , L0000140 , L0000141 , L0000142 , L0000143 , L0000144 ,
L0000145 , L0000146 , L0000147 , L0000148 , L0000149 , L0000150 , L0000151 , L0000152 ,
L0000153 , L0000154 , L0000155 , L0000156 , L0000157 , L0000158 , L0000159 , L0000160 ,

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
	L0000161 , L0000162 , L0000163 , L0000164 , L0000165 , L0000166 , L0000167 , L0000168 ,
	L0000169 , L0000170 , L0000171 , L0000172 , L0000173 , L0000174 , L0000175 , L0000176 ,
	L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 , L0000183 , L0000184 ,
	L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 , L0000191 , L0000192 ,
	L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 , L0000199 , L0000200 ,

L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , L0000206 , L0000207 , L0000208 ,

L0000209 , L0000210 , L0000211 , L0000212 , L0000213 , L0000214 , L0000215 , L0000216 ,

L0000217 , L0000218 , L0000219 , L0000220 , L0000221 , L0000222 , L0000223 , L0000224 ,

L0000225 , L0000226 , L0000227 , L0000228 , L0000229 , L0000230 , L0000231 , L0000232 ,

L0000233 , L0000234 , L0000235 , L0000236 , L0000237 , L0000238 , L0000239 , L0000240 ,

L0000241 , L0000242 , L0000243 , L0000244 , L0000245 ,

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

3000. L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,

L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,

L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,

L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,

L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,

L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,

L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,

L0000057 , L0000058 , L0000059 , L0000060 , L0000061 , L0000062 , L0000063 , L0000064 ,

L0000065 , L0000066 , L0000067 , L0000068 , L0000069 , L0000070 , L0000071 , L0000072 ,

L0000073 , L0000074 , L0000075 , L0000076 , L0000077 , L0000078 , L0000079 , L0000080 ,

L0000081 , L0000082 , L0000083 , L0000084 , L0000085 , L0000086 , L0000087 , L0000088 ,

L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 ,

L0000097 , L0000098 , L0000099 , L0000100 , L0000101 , L0000102 , L0000103 , L0000104 ,

L0000105 , L0000106 , L0000107 , L0000108 , L0000109 , L0000110 , L0000111 , L0000112 ,

L0000113 , L0000114 , L0000115 , L0000116 , L0000117 , L0000118 , L0000119 , L0000120 ,

L0000121 , L0000122 , L0000123 , L0000124 , L0000125 , L0000126 , L0000127 , L0000128 ,

L0000129 , L0000130 , L0000131 , L0000132 , L0000133 , L0000134 , L0000135 , L0000136 ,

L0000137 , L0000138 , L0000139 , L0000140 , L0000141 , L0000142 , L0000143 , L0000144 ,

L0000145 , L0000146 , L0000147 , L0000148 , L0000149 , L0000150 , L0000151 , L0000152 ,

L0000153 , L0000154 , L0000155 , L0000156 , L0000157 , L0000158 , L0000159 , L0000160 ,
*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
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*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0000161 , L0000162 , L0000163 , L0000164 , L0000165 , L0000166 , L0000167 , L0000168 ,
L0000169 , L0000170 , L0000171 , L0000172 , L0000173 , L0000174 , L0000175 , L0000176 ,
L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 , L0000183 , L0000184 ,
L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 , L0000191 , L0000192 ,
L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 , L0000199 , L0000200 ,
L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , L0000206 , L0000207 , L0000208 ,
L0000209 , L0000210 , L0000211 , L0000212 , L0000213 , L0000214 , L0000215 , L0000216 ,
L0000217 , L0000218 , L0000219 , L0000220 , L0000221 , L0000222 , L0000223 , L0000224 ,
L0000225 , L0000226 , L0000227 , L0000228 , L0000229 , L0000230 , L0000231 , L0000232 ,
L0000233 , L0000234 , L0000235 , L0000236 , L0000237 , L0000238 , L0000239 , L0000240 ,
L0000241 , L0000242 , L0000243 , L0000244 , L0000245 ,
*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
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*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

497875.7, 497925.7, 497975.7, 498025.7, 498075.7, 498125.7, 498175.7, 498225.7, 498275.7, 498325.7,
498375.7, 498425.7, 498475.7, 498525.7, 498575.7, 498625.7, 498675.7, 498725.7, 498775.7, 498825.7,
498875.7, 498925.7, 498975.7, 499025.7, 499075.7, 499125.7, 499175.7, 499225.7, 499275.7, 499325.7,
499375.7, 499425.7, 499475.7, 499525.7, 499575.7, 499625.7, 499675.7, 499725.7, 499775.7, 499825.7,
499875.7, 499925.7,

*** Y-COORDINATES OF GRID ***
(METERS)

3602303.6, 3602353.6, 3602403.6, 3602453.6, 3602503.6, 3602553.6, 3602603.6, 3602653.6, 3602703.6, 3602753.6,
3602803.6, 3602853.6, 3602903.6, 3602953.6, 3603003.6, 3603053.6, 3603103.6, 3603153.6, 3603203.6, 3603253.6,
3603303.6, 3603353.6, 3603403.6, 3603453.6, 3603503.6, 3603553.6, 3603603.6, 3603653.6, 3603703.6, 3603753.6,
3603803.6, 3603853.6, 3603903.6, 3603953.6, 3604003.6, 3604053.6, 3604103.6, 3604153.6, 3604203.6, 3604253.6,
3604303.6, 3604353.6,

*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** *** 12:39:53

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3604353.58	125.90	126.10	126.10	126.10	126.10	126.10	126.10	125.80	125.20
3604303.58	126.50	126.90	127.20	127.20	127.20	127.20	127.60	127.60	127.40
3604253.58	127.20	127.70	128.30	128.30	128.30	128.40	129.00	129.30	129.30
3604203.58	128.20	128.80	129.30	129.30	129.60	130.00	130.20	130.30	130.30
3604153.58	129.40	130.10	130.60	130.60	131.00	131.40	131.60	131.70	131.80
3604103.58	131.00	131.70	132.30	132.30	132.40	132.50	133.00	133.50	134.00
3604053.58	132.30	133.10	133.60	133.80	134.00	134.20	134.90	135.50	136.10
3604003.58	133.50	134.20	134.80	135.30	135.80	136.40	137.00	137.70	138.30
3603953.58	133.10	133.90	134.70	135.40	136.20	137.10	137.90	138.70	139.30
3603903.58	132.10	133.10	134.20	134.80	135.80	137.10	138.30	139.20	139.90
3603853.58	130.50	131.80	133.30	134.20	135.30	136.60	137.90	139.00	139.90
3603803.58	128.70	130.40	132.20	133.50	134.80	136.10	137.40	138.60	139.90
3603753.58	126.90	129.10	131.20	132.80	134.50	136.10	137.40	138.60	139.90
3603703.58	125.20	127.80	130.40	132.30	134.20	136.10	137.40	138.70	139.90
3603653.58	124.20	127.30	130.40	132.30	134.20	136.10	137.80	139.10	139.90
3603603.58	124.00	127.20	130.50	132.40	134.40	136.30	138.20	139.40	140.00
3603553.58	125.40	128.30	131.10	133.00	134.90	136.80	138.70	139.80	140.00
3603503.58	126.50	129.10	131.40	133.50	135.40	137.40	139.10	140.00	140.00
3603453.58	127.10	129.30	131.50	133.90	136.00	137.90	139.30	140.00	140.00
3603403.58	127.40	129.40	131.40	133.80	135.90	137.80	139.30	140.00	140.00
3603353.58	127.40	129.40	131.40	133.40	135.30	137.20	139.10	140.00	140.00
3603303.58	127.40	129.40	131.40	133.30	135.00	136.70	138.60	139.70	140.00
3603253.58	127.50	129.40	131.40	133.30	134.80	136.20	138.10	139.30	140.00
3603203.58	127.00	129.00	130.90	132.80	134.50	136.10	137.70	139.00	139.90
3603153.58	126.50	128.40	130.30	132.20	134.20	136.00	137.30	138.60	139.90
3603103.58	125.50	127.30	129.30	131.60	133.60	135.50	137.20	138.60	139.90
3603053.58	124.40	126.20	128.40	130.80	133.00	135.00	136.90	138.60	139.90
3603003.58	122.90	125.10	127.70	129.90	132.10	134.50	136.40	138.20	139.90
3602953.58	122.00	124.30	127.20	129.10	131.30	133.70	135.60	137.50	139.30
3602903.58	122.00	124.10	126.60	128.50	130.60	132.60	134.60	136.20	137.70
3602853.58	122.20	124.10	126.30	128.10	129.90	131.80	133.60	135.10	136.30
3602803.58	122.70	124.40	126.30	127.70	129.40	131.30	132.70	134.00	135.30
3602753.58	122.80	124.30	125.90	127.40	129.10	130.70	132.00	133.30	134.50
3602703.58	122.80	124.00	125.50	127.30	128.80	130.20	131.50	132.70	134.00
3602653.58	122.80	124.00	125.30	126.90	128.40	129.70	131.20	132.60	133.90
3602603.58	122.80	124.00	125.20	126.50	127.80	129.10	131.00	132.60	133.90
3602553.58	122.80	123.70	124.80	126.40	127.80	129.10	130.70	132.10	133.40
3602503.58	122.80	123.40	124.30	126.20	127.80	129.10	130.40	131.60	132.90
3602453.58	122.30	122.90	123.80	125.70	127.40	129.10	130.40	131.60	132.90
3602403.58	122.20	122.60	123.40	125.40	127.30	129.10	130.40	131.60	132.90

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*** AERMET - VERSION 15181 *** *** *** 12:39:53

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
(METERS)	497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3602353.58	122.70	122.80	123.50	125.80	127.60	129.10	130.40	131.60	132.90
3602303.58	123.20	123.50	124.20	126.40	128.00	129.30	130.40	131.60	132.90

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
(METERS)	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72
3604353.58	125.80	126.40	127.00	126.70	126.20	126.10	125.70	125.00	124.40
3604303.58	127.90	128.40	128.70	128.60	128.20	127.40	126.70	126.10	125.10
3604253.58	129.90	130.40	130.40	130.40	130.10	128.90	128.00	127.20	125.90
3604203.58	131.30	132.00	132.00	132.00	131.80	131.00	130.00	128.80	127.10
3604153.58	133.00	133.80	133.80	133.80	133.70	132.90	131.70	130.20	128.30
3604103.58	135.20	136.00	136.00	136.00	135.70	134.60	133.10	131.30	129.40
3604053.58	137.20	137.90	137.90	137.90	137.60	136.50	135.00	133.20	131.10
3604003.58	139.00	139.50	139.50	139.50	139.30	138.60	137.40	135.90	133.50
3603953.58	139.70	140.10	140.30	140.40	140.20	139.60	138.80	137.90	136.10
3603903.58	140.00	140.20	140.80	140.90	140.80	140.10	139.80	139.70	138.90
3603853.58	140.00	140.20	140.90	141.00	140.90	140.60	140.50	140.40	139.70
3603803.58	140.00	140.20	140.90	141.00	141.00	141.00	141.00	140.90	140.30
3603753.58	140.00	140.20	140.90	141.00	141.00	141.00	141.00	141.00	140.70
3603703.58	140.00	140.20	140.90	141.00	141.00	141.10	141.00	141.00	141.00
3603653.58	140.00	140.20	140.90	141.00	141.10	141.50	141.40	141.00	141.00
3603603.58	140.00	140.20	140.90	141.00	141.20	141.80	141.60	141.20	141.20
3603553.58	140.00	140.20	140.90	141.00	141.20	141.80	141.90	141.70	141.70
3603503.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603453.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603403.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603353.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603303.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603253.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603203.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603153.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603103.58	140.00	140.20	140.90	141.00	141.20	141.80	141.80	141.40	141.40
3603053.58	140.00	140.20	140.90	141.00	141.10	141.70	141.50	141.00	141.00
3603003.58	140.00	140.20	140.90	141.00	141.10	141.30	141.20	141.00	141.00
3602953.58	139.60	140.00	140.70	140.80	140.80	140.80	140.80	140.80	140.80
3602903.58	138.70	139.50	140.10	140.30	140.30	140.30	140.30	140.30	140.30
3602853.58	137.60	138.70	139.60	139.70	139.70	139.70	139.70	139.70	139.50
3602803.58	136.50	137.80	138.90	139.20	139.20	139.20	139.20	139.10	138.60
3602753.58	135.80	137.00	138.10	138.50	138.60	138.30	138.10	137.90	137.50
3602703.58	135.30	136.40	137.00	137.70	138.00	137.40	136.80	136.30	136.20
3602653.58	134.90	135.90	136.80	137.10	136.90	136.30	135.70	135.10	134.80
3602603.58	134.60	135.50	136.80	136.50	135.90	135.20	134.60	133.90	133.30
3602553.58	134.40	135.30	136.30	135.70	134.70	133.70	133.00	132.30	131.30
3602503.58	134.20	135.20	135.70	134.80	133.50	132.20	131.30	130.50	129.30
3602453.58	134.20	134.90	134.80	133.40	131.80	130.60	129.20	127.80	126.90
3602403.58	134.10	134.50	133.70	132.00	130.20	128.70	127.00	125.30	124.90

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*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72
3602353.58	133.80	133.70	132.20	130.40	128.40	126.20	124.50	123.20	123.50
3602303.58	133.30	132.90	131.10	129.30	127.40	125.00	123.30	122.10	122.50

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72
3604353.58	123.70	123.00	122.40	122.00	122.00	122.00	122.20	122.80	123.00
3604303.58	124.00	123.00	122.40	122.00	122.00	122.00	122.20	122.80	123.30
3604253.58	124.60	123.30	122.50	122.00	122.00	122.00	122.20	122.80	123.50
3604203.58	125.60	124.40	122.90	122.00	122.00	122.00	122.20	122.80	123.50
3604153.58	126.70	125.20	123.30	122.20	122.00	122.00	122.20	122.80	123.60
3604103.58	127.50	125.80	123.90	122.60	122.10	122.00	122.20	122.80	123.80
3604053.58	129.00	126.90	124.60	122.90	122.10	122.00	122.20	123.10	124.40
3604003.58	131.00	128.60	125.60	123.30	122.20	122.00	122.30	123.50	125.10
3603953.58	134.00	131.70	129.00	126.60	124.60	123.40	123.30	125.00	126.70
3603903.58	137.40	135.50	133.40	131.00	128.00	125.50	124.50	127.00	128.60
3603853.58	138.90	137.90	136.00	133.70	131.10	129.10	128.10	129.80	131.00
3603803.58	140.00	140.00	138.10	136.20	134.30	132.90	132.20	132.80	133.50
3603753.58	140.50	140.50	139.30	138.00	136.40	135.40	134.80	135.10	135.40
3603703.58	141.00	141.00	140.40	139.60	138.30	137.70	137.20	137.20	137.20
3603653.58	141.00	141.00	140.80	140.30	139.40	139.00	138.90	138.90	138.90
3603603.58	141.20	141.20	141.20	140.90	140.30	140.20	140.20	140.20	140.20
3603553.58	141.70	141.70	141.70	141.40	140.80	140.70	140.70	140.70	140.70
3603503.58	142.00	142.00	142.00	141.80	141.30	141.20	141.20	141.20	141.20
3603453.58	142.00	142.00	142.00	141.90	141.80	141.80	141.80	141.80	141.80
3603403.58	142.00	142.00	142.00	142.00	142.00	142.20	142.30	142.30	142.30
3603353.58	142.00	142.00	142.00	142.00	142.00	142.50	142.90	142.90	142.90
3603303.58	142.00	142.00	142.00	142.00	142.00	142.30	142.60	142.60	142.60
3603253.58	142.00	142.00	142.00	142.00	142.00	142.00	142.00	142.00	142.00
3603203.58	142.00	142.00	141.70	141.50	141.50	141.50	141.50	141.50	141.50
3603153.58	142.00	142.00	141.40	141.00	141.00	141.00	141.00	141.00	141.00
3603103.58	141.40	141.40	141.20	141.00	141.00	141.00	141.00	141.00	141.00
3603053.58	141.00	141.00	141.00	141.00	141.00	140.90	140.90	140.90	140.90
3603003.58	141.00	141.00	141.00	141.00	141.00	140.60	140.30	140.30	140.30
3602953.58	140.80	140.80	140.80	140.80	140.80	140.30	139.80	139.60	139.40
3602903.58	140.30	140.30	140.30	140.30	140.30	139.70	139.10	138.60	137.80
3602853.58	139.40	139.40	139.40	139.40	139.20	138.60	137.90	137.10	135.90
3602803.58	138.30	138.30	138.40	138.10	137.60	137.00	136.20	135.00	133.80
3602753.58	137.10	136.90	136.70	136.30	135.60	135.00	134.10	132.60	131.20
3602703.58	135.90	135.30	134.70	134.10	133.50	132.80	131.80	130.00	128.50

3602653.58	134.30	133.70	133.30	132.80	132.20	131.10	129.80	128.50	127.20
3602603.58	132.70	132.00	132.00	131.80	131.10	129.40	127.90	127.20	126.10
3602553.58	130.70	130.40	130.40	130.10	129.50	128.10	126.70	125.70	124.70
3602503.58	128.70	128.70	128.70	128.50	127.90	126.70	125.50	124.20	123.40
3602453.58	126.50	126.50	126.50	126.40	126.20	125.40	124.40	123.10	122.60
3602403.58	124.70	124.70	124.70	124.70	124.80	124.40	123.60	122.40	122.00

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72
3602353.58	123.60	123.60	123.60	123.80	124.20	124.10	123.60	122.40	122.00
3602303.58	122.80	122.80	122.80	123.00	123.70	123.80	123.50	122.50	122.10

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72
3604353.58	123.10	123.10	123.50	124.20	126.70	128.90	130.80	132.20	132.80
3604303.58	123.60	124.00	124.60	125.20	127.40	129.30	130.80	132.20	133.00
3604253.58	124.10	124.80	125.60	126.30	128.10	129.70	131.00	132.30	133.30
3604203.58	124.20	125.20	126.30	127.40	128.90	130.30	131.50	132.80	133.90
3604153.58	124.40	125.70	127.00	128.20	129.50	130.80	132.10	133.20	134.30
3604103.58	125.00	126.20	127.50	128.80	130.10	131.30	132.60	133.50	134.40
3604053.58	125.80	127.10	128.30	129.60	130.90	132.10	133.20	133.90	134.70
3604003.58	126.90	128.10	129.40	130.70	132.00	133.00	133.80	134.40	135.10
3603953.58	128.30	129.60	130.90	132.20	133.20	134.00	134.70	135.30	135.90
3603903.58	130.00	131.20	132.50	133.80	134.50	135.10	135.80	136.40	136.90
3603853.58	132.00	133.00	134.00	134.90	135.60	136.20	136.90	137.50	137.90
3603803.58	134.10	134.70	135.40	136.00	136.70	137.30	137.90	138.60	139.00
3603753.58	135.70	136.40	136.80	137.10	137.70	138.20	138.50	139.10	139.50
3603703.58	137.30	137.90	138.20	138.20	138.80	139.10	139.10	139.70	140.10
3603653.58	138.90	139.10	139.20	139.30	139.50	139.60	139.60	140.20	140.60
3603603.58	140.20	140.30	140.30	140.30	140.30	140.30	140.30	140.90	141.40
3603553.58	140.80	141.20	141.40	141.40	141.40	141.40	141.40	142.00	142.60
3603503.58	141.30	142.00	142.20	142.20	142.20	142.30	142.50	142.90	143.50
3603453.58	141.90	142.50	142.80	142.80	142.80	143.00	143.50	143.70	144.20
3603403.58	142.40	143.10	143.30	143.30	143.50	143.90	144.30	144.30	144.60
3603353.58	143.00	143.60	143.90	143.90	144.40	144.80	144.90	144.90	144.90
3603303.58	142.70	143.30	143.60	143.60	144.20	144.60	144.60	144.60	144.40
3603253.58	142.10	142.80	143.00	143.10	143.70	144.00	144.00	144.00	143.60
3603203.58	141.60	141.90	142.00	142.00	142.30	142.50	142.50	142.80	142.60
3603153.58	141.00	141.00	141.00	141.00	141.00	141.00	141.00	141.50	141.50
3603103.58	140.90	140.60	140.40	140.40	140.40	140.40	140.40	140.70	140.70
3603053.58	140.80	140.10	139.70	139.60	139.60	139.50	139.40	139.40	139.40

3603003.58	140.20	139.10	138.40	138.00	137.60	137.20	136.70	136.70	136.70
3602953.58	139.00	137.70	136.70	136.00	135.20	134.30	133.10	133.30	133.70
3602903.58	136.80	135.50	134.40	133.30	132.10	130.40	127.80	128.90	130.10
3602853.58	134.60	133.00	131.40	130.00	128.90	127.10	124.40	125.60	127.10
3602803.58	132.30	130.00	128.00	126.20	125.50	124.30	122.70	123.30	124.50
3602753.58	129.80	127.70	125.80	123.90	123.50	122.90	122.10	122.40	123.10
3602703.58	127.20	125.80	124.10	122.30	122.20	122.10	122.00	122.10	122.30
3602653.58	125.90	125.00	123.60	122.00	122.00	122.00	122.00	122.00	122.20
3602603.58	124.90	124.30	123.20	122.00	122.00	122.00	122.00	122.00	122.20
3602553.58	123.90	123.60	123.10	122.50	122.20	122.00	122.00	122.00	122.10
3602503.58	122.90	122.90	122.90	122.90	122.30	121.90	121.80	121.80	121.70
3602453.58	122.40	122.40	122.40	122.40	122.10	121.50	120.30	120.20	119.80
3602403.58	122.00	122.00	122.00	122.00	121.80	120.70	118.60	118.00	117.10

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72
3602353.58	122.00	122.00	122.00	122.00	121.10	119.30	116.50	114.60	112.80
3602303.58	122.00	122.00	121.90	121.70	120.00	117.40	113.90	111.30	109.30

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3604353.58	132.20	131.10	129.80	128.50	126.90	125.00
3604303.58	133.10	132.20	130.90	129.60	128.20	126.60
3604253.58	134.00	133.20	132.00	130.70	129.40	128.10
3604203.58	134.50	134.00	133.10	131.80	130.50	129.20
3604153.58	135.00	134.70	133.90	132.70	131.50	130.30
3604103.58	135.50	135.30	134.50	133.20	132.20	131.40
3604053.58	135.80	135.70	135.10	134.00	133.20	132.50
3604003.58	135.80	135.90	135.70	134.90	134.30	133.60
3603953.58	136.30	136.40	136.30	135.90	135.30	134.70
3603903.58	136.90	136.90	136.90	136.90	136.40	135.80
3603853.58	137.90	137.90	137.90	137.90	137.50	136.90
3603803.58	139.00	139.00	139.00	139.00	138.60	137.90
3603753.58	139.50	139.50	139.50	139.50	139.40	139.10
3603703.58	140.10	140.10	140.10	140.10	140.10	140.20
3603653.58	140.60	140.60	140.60	140.60	140.90	141.30
3603603.58	141.50	141.50	141.50	141.60	142.10	142.70
3603553.58	143.00	143.10	143.20	143.70	144.20	144.90
3603503.58	144.30	144.50	144.60	145.10	145.50	145.80
3603453.58	145.30	145.60	145.60	145.70	145.60	145.20
3603403.58	145.50	145.70	145.70	145.70	145.30	144.70

3603353.58	145.10	145.10	145.10	145.10	144.70	144.10
3603303.58	143.90	143.80	143.80	143.80	143.50	143.20
3603253.58	142.40	142.10	142.10	142.10	142.10	142.00
3603203.58	141.30	141.00	140.90	140.20	139.60	138.90
3603153.58	140.30	140.00	139.70	138.40	137.10	135.70
3603103.58	140.10	139.70	139.20	137.90	136.60	135.10
3603053.58	139.40	139.00	138.30	137.10	135.80	134.30
3603003.58	136.70	136.50	136.20	135.30	134.20	132.70
3602953.58	133.90	134.10	134.10	133.40	132.40	130.90
3602903.58	131.10	131.70	131.90	131.30	130.20	128.80
3602853.58	128.50	129.40	129.80	129.30	128.30	127.00
3602803.58	126.30	127.20	127.70	127.60	126.70	125.40
3602753.58	124.60	125.40	125.90	125.90	125.10	123.80
3602703.58	123.10	123.80	124.30	124.30	123.50	122.20
3602653.58	122.90	123.30	123.50	123.20	122.30	121.10
3602603.58	122.90	123.00	122.90	122.20	121.20	120.00
3602553.58	122.40	122.50	122.10	120.50	119.10	117.90
3602503.58	121.60	121.50	120.90	118.50	117.10	116.40
3602453.58	118.60	117.70	116.80	115.40	116.10	118.00
3602403.58	115.20	114.30	113.90	114.10	116.40	119.70

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3602353.58	110.90	111.90	114.00	117.40	119.90	121.90
3602303.58	108.60	111.80	116.00	120.20	122.40	123.60

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3604353.58	125.90	126.10	126.10	126.10	126.10	126.10	126.10	125.80	125.20
3604303.58	126.50	126.90	127.20	127.20	127.20	127.20	127.60	127.60	127.40
3604253.58	127.20	127.70	128.30	128.30	128.30	128.40	129.00	129.30	129.30
3604203.58	128.20	128.80	129.30	129.30	129.60	130.00	130.20	130.30	130.30
3604153.58	129.40	130.10	130.60	130.60	131.00	131.40	131.60	131.70	131.80
3604103.58	131.00	131.70	132.30	132.30	132.40	132.50	133.00	133.50	134.00
3604053.58	132.30	133.10	133.60	133.80	134.00	134.20	134.90	135.50	136.10
3604003.58	133.50	134.20	134.80	135.30	135.80	136.40	137.00	137.70	138.30
3603953.58	133.10	133.90	134.70	135.40	136.20	137.10	137.90	138.70	139.30
3603903.58	132.10	133.10	134.20	134.80	135.80	137.10	138.30	139.20	139.90
3603853.58	130.50	131.80	133.30	134.20	135.30	136.60	137.90	139.00	139.90
3603803.58	128.70	130.40	132.20	133.50	134.80	136.10	137.40	138.60	139.90
3603753.58	126.90	129.10	131.20	132.80	134.50	136.10	137.40	138.60	139.90

3603703.58	125.20	127.80	130.40	132.30	134.20	136.10	137.40	138.70	139.90
3603653.58	124.20	127.30	130.40	132.30	134.20	136.10	137.80	139.10	139.90
3603603.58	124.00	127.20	130.50	132.40	134.40	136.30	138.20	139.40	140.00
3603553.58	125.40	128.30	131.10	133.00	134.90	136.80	138.70	139.80	140.00
3603503.58	126.50	129.10	131.40	133.50	135.40	137.40	139.10	140.00	140.00
3603453.58	127.10	129.30	131.50	133.90	136.00	137.90	139.30	140.00	140.00
3603403.58	127.40	129.40	131.40	133.80	135.90	137.80	139.30	140.00	140.00
3603353.58	127.40	129.40	131.40	133.40	135.30	137.20	139.10	140.00	140.00
3603303.58	127.40	129.40	131.40	133.30	135.00	136.70	138.60	139.70	140.00
3603253.58	127.50	129.40	131.40	133.30	134.80	136.20	138.10	139.30	140.00
3603203.58	127.00	129.00	130.90	132.80	134.50	136.10	137.70	139.00	139.90
3603153.58	126.50	128.40	130.30	132.20	134.20	136.00	137.30	138.60	139.90
3603103.58	125.50	127.30	129.30	131.60	133.60	135.50	137.20	138.60	139.90
3603053.58	124.40	126.20	128.40	130.80	133.00	135.00	136.90	138.60	139.90
3603003.58	122.90	125.10	127.70	129.90	132.10	134.50	136.40	138.20	139.90
3602953.58	122.00	124.30	127.20	129.10	131.30	133.70	135.60	137.50	139.30
3602903.58	122.00	124.10	126.60	128.50	130.60	132.60	134.60	136.20	137.70
3602853.58	122.20	124.10	126.30	128.10	129.90	131.80	133.60	135.10	136.30
3602803.58	122.70	124.40	126.30	127.70	129.40	131.30	132.70	134.00	135.30
3602753.58	122.80	124.30	125.90	127.40	129.10	130.70	132.00	133.30	134.50
3602703.58	122.80	124.00	125.50	127.30	128.80	130.20	131.50	132.70	134.00
3602653.58	122.80	124.00	125.30	126.90	128.40	129.70	131.20	132.60	133.90
3602603.58	122.80	124.00	125.20	126.50	127.80	129.10	131.00	132.60	133.90
3602553.58	122.80	123.70	124.80	126.40	127.80	129.10	130.70	132.10	133.40
3602503.58	122.80	123.40	124.30	126.20	127.80	129.10	130.40	131.60	132.90
3602453.58	122.30	122.90	123.80	125.70	127.40	129.10	130.40	131.60	132.90
3602403.58	122.20	122.60	123.40	125.40	127.30	129.10	130.40	131.60	132.90

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3602353.58	122.70	122.80	123.50	125.80	127.60	129.10	130.40	131.60	132.90
3602303.58	123.20	123.50	124.20	126.40	128.00	129.30	130.40	131.60	132.90

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72
3604353.58	125.80	126.40	127.00	126.70	126.20	126.10	125.70	125.00	124.40
3604303.58	127.90	128.40	128.70	128.60	128.20	127.40	126.70	126.10	125.10
3604253.58	129.90	130.40	130.40	130.40	130.10	128.90	128.00	127.20	125.90
3604203.58	131.30	132.00	132.00	132.00	131.80	131.00	130.00	128.80	127.10
3604153.58	133.00	133.80	133.80	133.80	133.70	132.90	131.70	130.20	128.30
3604103.58	135.20	136.00	136.00	136.00	135.70	134.60	133.10	131.30	129.40

3604053.58	137.20	137.90	137.90	137.90	137.60	136.50	135.00	133.20	131.10
3604003.58	139.00	139.50	139.50	139.50	139.30	138.60	137.40	135.90	133.50
3603953.58	139.70	140.10	140.30	140.40	140.20	139.60	138.80	137.90	136.10
3603903.58	140.00	140.20	140.80	140.90	140.80	140.10	139.80	139.70	138.90
3603853.58	140.00	140.20	140.90	141.00	140.90	140.60	140.50	140.40	139.70
3603803.58	140.00	140.20	140.90	141.00	141.00	141.00	141.00	140.90	140.30
3603753.58	140.00	140.20	140.90	141.00	141.00	141.00	141.00	141.00	140.70
3603703.58	140.00	140.20	140.90	141.00	141.00	141.10	141.00	141.00	141.00
3603653.58	140.00	140.20	140.90	141.00	141.10	141.50	141.40	141.00	141.00
3603603.58	140.00	140.20	140.90	141.00	141.20	141.80	141.60	141.20	141.20
3603553.58	140.00	140.20	140.90	141.00	141.20	141.80	141.90	141.70	141.70
3603503.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603453.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603403.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603353.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603303.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603253.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603203.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603153.58	140.00	140.20	140.90	141.00	141.20	141.80	142.00	142.00	142.00
3603103.58	140.00	140.20	140.90	141.00	141.20	141.80	141.80	141.40	141.40
3603053.58	140.00	140.20	140.90	141.00	141.10	141.70	141.50	141.00	141.00
3603003.58	140.00	140.20	140.90	141.00	141.10	141.30	141.20	141.00	141.00
3602953.58	139.60	140.00	140.70	140.80	140.80	140.80	140.80	140.80	140.80
3602903.58	138.70	139.50	140.10	140.30	140.30	140.30	140.30	140.30	140.30
3602853.58	137.60	138.70	139.60	139.70	139.70	139.70	139.70	139.70	139.50
3602803.58	136.50	137.80	138.90	139.20	139.20	139.20	139.20	139.10	138.60
3602753.58	135.80	137.00	138.10	138.50	138.60	138.30	138.10	137.90	137.50
3602703.58	135.30	136.40	137.00	137.70	138.00	137.40	136.80	136.30	136.20
3602653.58	134.90	135.90	136.80	137.10	136.90	136.30	135.70	135.10	134.80
3602603.58	134.60	135.50	136.80	136.50	135.90	135.20	134.60	133.90	133.30
3602553.58	134.40	135.30	136.30	135.70	134.70	133.70	133.00	132.30	131.30
3602503.58	134.20	135.20	135.70	134.80	133.50	132.20	131.30	130.50	129.30
3602453.58	134.20	134.90	134.80	133.40	131.80	130.60	129.20	127.80	126.90
3602403.58	134.10	134.50	133.70	132.00	130.20	128.70	127.00	125.30	124.90

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72

3602353.58	133.80	133.70	132.20	130.40	128.40	126.20	124.50	123.20	123.50
3602303.58	133.30	132.90	131.10	129.30	127.40	125.00	123.30	122.10	122.50

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72

3604353.58	123.70	123.00	122.40	122.00	122.00	122.00	122.20	122.80	123.00
3604303.58	124.00	123.00	122.40	122.00	122.00	122.00	122.20	122.80	123.30
3604253.58	124.60	123.30	122.50	122.00	122.00	122.00	122.20	122.80	123.50
3604203.58	125.60	124.40	122.90	122.00	122.00	122.00	122.20	122.80	123.50
3604153.58	126.70	125.20	123.30	122.20	122.00	122.00	122.20	122.80	123.60
3604103.58	127.50	125.80	123.90	122.60	122.10	122.00	122.20	122.80	123.80
3604053.58	129.00	126.90	124.60	122.90	122.10	122.00	122.20	123.10	124.40
3604003.58	131.00	128.60	125.60	123.30	122.20	122.00	122.30	123.50	125.10
3603953.58	134.00	131.70	129.00	133.00	124.60	123.40	123.30	125.00	126.70
3603903.58	137.40	135.50	133.40	131.00	128.00	125.50	124.50	127.00	128.60
3603853.58	138.90	137.90	136.00	133.70	131.10	129.10	128.10	129.80	131.00
3603803.58	140.00	140.00	138.10	136.20	134.30	132.90	132.20	132.80	133.50
3603753.58	140.50	140.50	139.30	138.00	136.40	135.40	134.80	135.10	135.40
3603703.58	141.00	141.00	140.40	139.60	138.30	137.70	137.20	137.20	137.20
3603653.58	141.00	141.00	140.80	140.30	139.40	139.00	138.90	138.90	138.90
3603603.58	141.20	141.20	141.20	140.90	140.30	140.20	140.20	140.20	140.20
3603553.58	141.70	141.70	141.70	141.40	140.80	140.70	140.70	140.70	140.70
3603503.58	142.00	142.00	142.00	141.80	141.30	141.20	141.20	141.20	141.20
3603453.58	142.00	142.00	142.00	141.90	141.80	141.80	141.80	141.80	141.80
3603403.58	142.00	142.00	142.00	142.00	142.00	142.20	142.30	142.30	142.30
3603353.58	142.00	142.00	142.00	142.00	142.00	142.50	142.90	142.90	142.90
3603303.58	142.00	142.00	142.00	142.00	142.00	142.30	142.60	142.60	142.60
3603253.58	142.00	142.00	142.00	142.00	142.00	142.00	142.00	142.00	142.00
3603203.58	142.00	142.00	141.70	141.50	141.50	141.50	141.50	141.50	141.50
3603153.58	142.00	142.00	141.40	141.00	141.00	141.00	141.00	141.00	141.00
3603103.58	141.40	141.40	141.20	141.00	141.00	141.00	141.00	141.00	141.00
3603053.58	141.00	141.00	141.00	141.00	141.00	140.90	140.90	140.90	140.90
3603003.58	141.00	141.00	141.00	141.00	141.00	140.60	140.30	140.30	140.30
3602953.58	140.80	140.80	140.80	140.80	140.80	140.30	139.80	139.60	139.40
3602903.58	140.30	140.30	140.30	140.30	140.30	139.70	139.10	138.60	137.80
3602853.58	139.40	139.40	139.40	139.40	139.20	138.60	137.90	137.10	135.90
3602803.58	138.30	138.30	138.40	138.10	137.60	137.00	136.20	135.00	133.80
3602753.58	137.10	136.90	136.70	136.30	135.60	135.00	134.10	132.60	131.20
3602703.58	135.90	135.30	134.70	134.10	133.50	132.80	131.80	130.00	128.50
3602653.58	134.30	133.70	133.30	132.80	132.20	131.10	129.80	128.50	127.20
3602603.58	132.70	132.00	132.00	131.80	131.10	129.40	127.90	127.20	126.10
3602553.58	130.70	130.40	130.40	130.10	129.50	128.10	126.70	125.70	124.70
3602503.58	128.70	128.70	128.70	128.50	127.90	126.70	125.50	124.20	123.40
3602453.58	126.50	126.50	126.50	126.40	126.20	125.40	124.40	123.10	122.60
3602403.58	124.70	124.70	124.70	124.70	124.80	124.40	123.60	122.40	122.00

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72
3602353.58	123.60	123.60	123.60	123.80	124.20	124.10	123.60	122.40	122.00
3602303.58	122.80	122.80	122.80	123.00	123.70	123.80	123.50	122.50	122.10

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72
3604353.58	123.10	123.10	123.50	124.20	126.70	128.90	130.80	132.20	132.80
3604303.58	123.60	124.00	124.60	125.20	127.40	129.30	130.80	132.20	133.00
3604253.58	124.10	124.80	125.60	126.30	128.10	129.70	131.00	132.30	133.30
3604203.58	124.20	125.20	126.30	127.40	128.90	130.30	131.50	132.80	133.90
3604153.58	124.40	125.70	127.00	128.20	129.50	130.80	132.10	133.20	134.30
3604103.58	125.00	126.20	127.50	128.80	130.10	131.30	132.60	133.50	134.40
3604053.58	125.80	127.10	128.30	129.60	130.90	132.10	133.20	133.90	134.70
3604003.58	126.90	128.10	129.40	130.70	132.00	133.00	133.80	134.40	135.10
3603953.58	128.30	129.60	130.90	132.20	133.20	134.00	134.70	135.30	135.90
3603903.58	130.00	131.20	132.50	133.80	134.50	135.10	135.80	136.40	136.90
3603853.58	132.00	133.00	134.00	134.90	135.60	136.20	136.90	137.50	137.90
3603803.58	134.10	134.70	135.40	136.00	136.70	137.30	137.90	138.60	139.00
3603753.58	135.70	136.40	136.80	137.10	137.70	138.20	138.50	139.10	139.50
3603703.58	137.30	137.90	138.20	138.20	138.80	139.10	139.10	139.70	140.10
3603653.58	138.90	139.10	139.20	139.30	139.50	139.60	139.60	140.20	140.60
3603603.58	140.20	140.30	140.30	140.30	140.30	140.30	140.30	140.90	141.40
3603553.58	140.80	141.20	141.40	141.40	141.40	141.40	141.40	142.00	142.60
3603503.58	141.30	142.00	142.20	142.20	142.20	142.30	142.50	142.90	143.50
3603453.58	141.90	142.50	142.80	142.80	142.80	143.00	143.50	143.70	144.20
3603403.58	142.40	143.10	143.30	143.30	143.50	143.90	144.30	144.30	144.60
3603353.58	143.00	143.60	143.90	143.90	144.40	144.80	144.90	144.90	144.90
3603303.58	142.70	143.30	143.60	143.60	144.20	144.60	144.60	144.60	144.40
3603253.58	142.10	142.80	143.00	143.10	143.70	144.00	144.00	144.00	143.60
3603203.58	141.60	141.90	142.00	142.00	142.30	142.50	142.50	142.80	142.60
3603153.58	141.00	141.00	141.00	141.00	141.00	141.00	141.00	141.50	141.50
3603103.58	140.90	140.60	140.40	140.40	140.40	140.40	140.40	140.70	140.70
3603053.58	140.80	140.10	139.70	139.60	139.60	139.50	139.40	139.40	139.40
3603003.58	140.20	139.10	138.40	138.00	137.60	137.20	136.70	136.70	136.70
3602953.58	139.00	137.70	136.70	136.00	135.20	134.30	133.10	133.30	133.70
3602903.58	136.80	135.50	134.40	133.30	132.10	130.40	135.00	128.90	130.10
3602853.58	134.60	133.00	131.40	130.00	128.90	127.10	124.40	125.60	127.10
3602803.58	132.30	130.00	128.00	126.20	125.50	124.30	122.70	123.30	124.50
3602753.58	129.80	127.70	125.80	123.90	123.50	122.90	122.10	122.40	123.10
3602703.58	127.20	125.80	124.10	122.30	122.20	122.10	122.00	122.10	122.30
3602653.58	125.90	125.00	123.60	122.00	122.00	122.00	122.00	122.00	122.20
3602603.58	124.90	124.30	123.20	122.00	122.00	122.00	122.00	122.00	122.20
3602553.58	123.90	123.60	123.10	122.50	122.20	122.00	122.00	122.00	122.10
3602503.58	122.90	122.90	122.90	122.90	122.30	121.90	121.80	121.80	121.70
3602453.58	122.40	122.40	122.40	122.40	122.10	121.50	120.30	120.20	119.80
3602403.58	122.00	122.00	122.00	122.00	121.80	120.70	118.60	118.00	117.10

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72

3602353.58	122.00	122.00	122.00	122.00	121.10	119.30	116.50	114.60	112.80
3602303.58	122.00	122.00	121.90	121.70	120.00	117.40	113.90	111.30	109.30

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3604353.58	132.20	131.10	129.80	128.50	126.90	125.00
3604303.58	133.10	132.20	130.90	129.60	128.20	126.60
3604253.58	134.00	133.20	132.00	130.70	129.40	128.10
3604203.58	134.50	134.00	133.10	131.80	130.50	129.20
3604153.58	135.00	134.70	133.90	132.70	131.50	130.30
3604103.58	135.50	135.30	134.50	133.20	132.20	131.40
3604053.58	135.80	135.70	135.10	134.00	133.20	132.50
3604003.58	135.80	135.90	135.70	134.90	134.30	133.60
3603953.58	136.30	136.40	136.30	135.90	135.30	134.70
3603903.58	136.90	136.90	136.90	136.90	136.40	135.80
3603853.58	137.90	137.90	137.90	137.90	137.50	136.90
3603803.58	139.00	139.00	139.00	139.00	138.60	137.90
3603753.58	139.50	139.50	139.50	139.50	139.40	139.10
3603703.58	140.10	140.10	140.10	140.10	140.10	140.20
3603653.58	140.60	140.60	140.60	140.60	140.90	141.30
3603603.58	141.50	141.50	141.50	141.60	142.10	142.70
3603553.58	143.00	143.10	143.20	143.70	144.20	144.90
3603503.58	144.30	144.50	144.60	145.10	145.50	145.80
3603453.58	145.30	145.60	145.60	145.70	145.60	145.20
3603403.58	145.50	145.70	145.70	145.70	145.30	144.70
3603353.58	145.10	145.10	145.10	145.10	144.70	144.10
3603303.58	143.90	143.80	143.80	143.80	143.50	143.20
3603253.58	142.40	142.10	142.10	142.10	142.10	142.00
3603203.58	141.30	141.00	140.90	140.20	139.60	138.90
3603153.58	140.30	140.00	139.70	138.40	137.10	135.70
3603103.58	140.10	139.70	139.20	137.90	136.60	135.10
3603053.58	139.40	139.00	138.30	137.10	135.80	134.30
3603003.58	136.70	136.50	136.20	135.30	134.20	132.70
3602953.58	133.90	134.10	134.10	133.40	132.40	130.90
3602903.58	131.10	131.70	131.90	131.30	130.20	128.80
3602853.58	128.50	129.40	129.80	129.30	128.30	127.00
3602803.58	126.30	127.20	127.70	127.60	126.70	125.40
3602753.58	124.60	125.40	125.90	125.90	125.10	123.80
3602703.58	123.10	123.80	124.30	124.30	123.50	122.20
3602653.58	122.90	123.30	123.50	123.20	122.30	121.10
3602603.58	122.90	123.00	122.90	122.20	121.20	120.00
3602553.58	122.40	122.50	122.10	120.50	119.10	117.90
3602503.58	121.60	121.50	120.90	118.50	117.10	116.40
3602453.58	118.60	117.70	116.80	115.40	116.10	118.00
3602403.58	115.20	114.30	113.90	114.10	116.40	119.70

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3602353.58	110.90	111.90	114.00	121.00	119.90	121.90
3602303.58	122.00	122.00	116.00	120.20	122.40	123.60

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(498707.3,	3603388.9,	142.0,	142.0,	0.0);	(498738.5,	3603361.8,	142.0,	142.0,	0.0);
(498762.5,	3603361.4,	142.0,	142.0,	0.0);	(498791.4,	3603361.8,	142.0,	142.0,	0.0);
(498803.1,	3603387.1,	142.0,	142.0,	0.0);	(498821.2,	3603319.8,	142.0,	142.0,	0.0);
(498788.2,	3603307.6,	142.0,	142.0,	0.0);	(498758.4,	3603309.9,	142.0,	142.0,	0.0);
(498737.1,	3603308.5,	142.0,	142.0,	0.0);	(498711.8,	3603309.9,	142.0,	142.0,	0.0);
(498701.9,	3603334.7,	142.0,	142.0,	0.0);	(498746.2,	3603289.5,	142.0,	142.0,	0.0);
(498771.0,	3603290.4,	142.0,	142.0,	0.0);	(498773.3,	3603271.0,	142.0,	142.0,	0.0);
(498821.2,	3603276.9,	142.0,	142.0,	0.0);	(498816.7,	3603255.6,	142.0,	142.0,	0.0);

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000010	497975.7	3603453.6	-6.30
L0000011	497975.7	3603453.6	-1.21
L0000029	498125.7	3603403.6	-2.71
L0000047	498275.7	3603353.6	-0.79
L0000048	498275.7	3603353.6	-2.58
L0000060	498375.7	3603303.6	0.43
L0000061	498375.7	3603303.6	-3.25
L0000079	498525.7	3603253.6	-2.35
L0000080	498525.7	3603253.6	-3.28
L0000098	498675.7	3603203.6	-4.88
L0000099	498675.7	3603203.6	-2.98
L0000146	499075.7	3603203.6	-1.01
L0000152	499125.7	3603203.6	-5.39
L0000153	499125.7	3603203.6	-0.00
L0000157	499175.7	3603203.6	-0.19
L0000158	499175.7	3603203.6	-7.14
L0000159	499175.7	3603203.6	0.36
L0000163	499225.7	3603203.6	0.72
L0000164	499225.7	3603203.6	-2.87
L0000217	499675.7	3603203.6	-1.19
L0000218	499675.7	3603203.6	-3.37
L0000223	499725.7	3603203.6	-0.65

L0000224 499725.7 3603203.6 -0.32
L0000236 499825.7 3603153.6 -1.43
L0000237 499825.7 3603153.6 -2.66

*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** *** 12:39:53
PAGE 36
*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** *** 12:39:53
PAGE 37
*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: N:\AIR_GHG_NOISE_Technical\001_AIR\Meterological\Chula Vista\ChulaVista_2010-201 Met Version: 15181
Profile file: N:\AIR_GHG_NOISE_Technical\001_AIR\Meterological\Chula Vista\ChulaVista_2010-201
Surface format: FREE
Profile format: FREE
Surface station no.: 23188 Upper air station no.: 3190
Name: CHULA_VISTA Name: UNKNOWN
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-2.3	0.054	-9.000	-9.000	-999.	30.	6.1	0.36	1.07	1.00	0.89	48.	10.0	283.1	10.0
10	01	01	1	02	-2.3	0.054	-9.000	-9.000	-999.	30.	6.1	0.36	1.07	1.00	0.89	62.	10.0	283.1	10.0
10	01	01	1	03	-2.3	0.054	-9.000	-9.000	-999.	30.	6.0	0.36	1.07	1.00	0.89	45.	10.0	282.5	10.0
10	01	01	1	04	-2.3	0.054	-9.000	-9.000	-999.	30.	6.0	0.36	1.07	1.00	0.89	79.	10.0	281.9	10.0
10	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.9	0.35	1.07	1.00	0.44	356.	10.0	280.9	10.0
10	01	01	1	06	-2.3	0.054	-9.000	-9.000	-999.	30.	6.0	0.36	1.07	1.00	0.89	45.	10.0	280.9	10.0
10	01	01	1	07	-1.8	0.054	-9.000	-9.000	-999.	30.	7.7	0.36	1.07	1.00	0.89	47.	10.0	281.9	10.0
10	01	01	1	08	-1.4	0.054	-9.000	-9.000	-999.	30.	10.2	0.36	1.07	0.49	0.89	78.	10.0	282.5	10.0
10	01	01	1	09	20.0	0.145	0.299	0.009	48.	133.	-13.9	0.36	1.07	0.30	0.89	24.	10.0	286.4	10.0
10	01	01	1	10	62.9	0.164	0.574	0.009	109.	159.	-6.3	0.35	1.07	0.23	0.89	351.	10.0	288.1	10.0
10	01	01	1	11	61.6	0.261	0.739	0.008	237.	320.	-26.2	0.35	1.07	0.21	1.78	311.	10.0	290.9	10.0
10	01	01	1	12	70.0	0.313	0.881	0.008	354.	419.	-39.5	0.35	1.07	0.20	2.23	313.	10.0	292.5	10.0
10	01	01	1	13	69.3	0.264	0.945	0.008	441.	327.	-24.0	0.35	1.07	0.20	1.78	305.	10.0	293.6	10.0
10	01	01	1	14	59.8	0.309	0.942	0.008	504.	412.	-44.4	0.35	1.07	0.21	2.23	278.	10.0	294.8	10.0
10	01	01	1	15	40.5	0.397	0.847	0.008	541.	599.	-139.0	0.35	1.07	0.24	3.12	289.	10.0	293.1	10.0

10 01 01 1 16 21.6 0.289 0.694 0.008 558. 379. -100.4 0.35 1.07 0.33 2.23 296. 10.0 291.4 10.0
10 01 01 1 17 -3.5 0.080 -9.000 -9.000 -999. 126. 13.1 0.35 1.07 0.60 1.34 337. 10.0 291.4 10.0
10 01 01 1 18 -3.7 0.080 -9.000 -9.000 -999. 55. 12.5 0.35 1.07 1.00 1.34 337. 10.0 290.4 10.0
10 01 01 1 19 -0.4 0.027 -9.000 -9.000 -999. 12. 4.3 0.39 1.07 1.00 0.44 252. 10.0 288.6 10.0
10 01 01 1 20 -0.4 0.026 -9.000 -9.000 -999. 10. 4.0 0.33 1.07 1.00 0.44 113. 10.0 287.5 10.0
10 01 01 1 21 -1.7 0.052 -9.000 -9.000 -999. 28. 7.3 0.33 1.07 1.00 0.89 122. 10.0 286.9 10.0
10 01 01 1 22 -4.7 0.078 -9.000 -9.000 -999. 52. 9.1 0.33 1.07 1.00 1.34 99. 10.0 286.4 10.0
10 01 01 1 23 -2.3 0.053 -9.000 -9.000 -999. 29. 6.0 0.35 1.07 1.00 0.89 331. 10.0 285.4 10.0
10 01 01 1 24 -2.3 0.054 -9.000 -9.000 -999. 30. 6.1 0.36 1.07 1.00 0.89 40. 10.0 285.4 10.0

First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
10 01 01 01 10.0 1 48. 0.89 283.2 30.0 -99.00 0.41

F indicates top of profile (=1) or below (=0)
*** AERMOD - VERSION 16216r *** *** C:\AERSCREEN\4135.1\PA61\PA61.isc *** 09/08/21
*** AERMET - VERSION 15181 *** *** 12:39:53
PAGE 38
*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3604353.58	0.00080	0.00082	0.00084	0.00086	0.00088	0.00089	0.00091	0.00092	0.00093
3604303.58	0.00085	0.00087	0.00089	0.00092	0.00094	0.00095	0.00097	0.00098	0.00100
3604253.58	0.00090	0.00093	0.00096	0.00098	0.00100	0.00102	0.00104	0.00106	0.00107
3604203.58	0.00096	0.00100	0.00103	0.00105	0.00108	0.00110	0.00112	0.00114	0.00115
3604153.58	0.00104	0.00107	0.00111	0.00114	0.00116	0.00119	0.00121	0.00123	0.00125
3604103.58	0.00112	0.00116	0.00120	0.00123	0.00126	0.00129	0.00132	0.00134	0.00135
3604053.58	0.00121	0.00126	0.00130	0.00134	0.00138	0.00141	0.00143	0.00145	0.00147
3604003.58	0.00132	0.00137	0.00142	0.00147	0.00150	0.00154	0.00156	0.00158	0.00160
3603953.58	0.00144	0.00150	0.00156	0.00162	0.00166	0.00169	0.00172	0.00174	0.00176
3603903.58	0.00158	0.00167	0.00174	0.00180	0.00185	0.00189	0.00192	0.00194	0.00195
3603853.58	0.00176	0.00187	0.00196	0.00204	0.00209	0.00213	0.00216	0.00218	0.00219
3603803.58	0.00197	0.00211	0.00224	0.00233	0.00240	0.00244	0.00247	0.00248	0.00248
3603753.58	0.00224	0.00243	0.00260	0.00273	0.00280	0.00284	0.00286	0.00286	0.00285
3603703.58	0.00259	0.00287	0.00310	0.00327	0.00336	0.00338	0.00339	0.00337	0.00334
3603653.58	0.00310	0.00353	0.00388	0.00408	0.00417	0.00416	0.00413	0.00407	0.00399
3603603.58	0.00389	0.00465	0.00519	0.00543	0.00545	0.00537	0.00524	0.00508	0.00491
3603553.58	0.00542	0.00706	0.00792	0.00803	0.00780	0.00744	0.00703	0.00662	0.00624
3603503.58	0.00901	0.01552	0.01615	0.01465	0.01299	0.01149	0.01020	0.00913	0.00827
3603453.58	0.01199	0.04182	0.04004	0.04891	0.03112	0.02231	0.01711	0.01393	0.01181
3603403.58	0.00748	0.01184	0.01648	0.02250	0.03348	0.05085	0.04624	0.02765	0.01999
3603353.58	0.00541	0.00719	0.00915	0.01133	0.01411	0.01841	0.02664	0.04663	0.04234
3603303.58	0.00430	0.00531	0.00642	0.00764	0.00904	0.01082	0.01329	0.01691	0.02280
3603253.58	0.00360	0.00426	0.00499	0.00579	0.00666	0.00767	0.00892	0.01047	0.01250
3603203.58	0.00309	0.00357	0.00409	0.00465	0.00526	0.00594	0.00671	0.00760	0.00865
3603153.58	0.00272	0.00308	0.00347	0.00389	0.00434	0.00483	0.00536	0.00594	0.00661
3603103.58	0.00242	0.00270	0.00300	0.00333	0.00368	0.00405	0.00445	0.00487	0.00532

3603053.58	0.00217	0.00240	0.00264	0.00291	0.00319	0.00348	0.00379	0.00410	0.00444
3603003.58	0.00197	0.00216	0.00236	0.00258	0.00280	0.00304	0.00328	0.00353	0.00379
3602953.58	0.00180	0.00196	0.00213	0.00231	0.00250	0.00269	0.00289	0.00309	0.00330
3602903.58	0.00166	0.00180	0.00194	0.00209	0.00224	0.00240	0.00257	0.00273	0.00290
3602853.58	0.00155	0.00166	0.00178	0.00191	0.00203	0.00217	0.00230	0.00244	0.00258
3602803.58	0.00144	0.00154	0.00164	0.00175	0.00186	0.00197	0.00209	0.00220	0.00232
3602753.58	0.00135	0.00143	0.00152	0.00161	0.00171	0.00180	0.00190	0.00200	0.00209
3602703.58	0.00127	0.00134	0.00142	0.00150	0.00158	0.00166	0.00174	0.00182	0.00191
3602653.58	0.00119	0.00125	0.00132	0.00139	0.00146	0.00153	0.00160	0.00168	0.00175
3602603.58	0.00112	0.00118	0.00124	0.00130	0.00136	0.00142	0.00149	0.00155	0.00161
3602553.58	0.00106	0.00111	0.00116	0.00122	0.00127	0.00132	0.00138	0.00143	0.00149
3602503.58	0.00100	0.00105	0.00109	0.00114	0.00119	0.00124	0.00129	0.00133	0.00138
3602453.58	0.00095	0.00099	0.00103	0.00107	0.00112	0.00116	0.00120	0.00125	0.00129
3602403.58	0.00090	0.00094	0.00097	0.00101	0.00105	0.00109	0.00113	0.00117	0.00120

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	497875.72	497925.72	497975.72	498025.72	498075.72	498125.72	498175.72	498225.72	498275.72
3602353.58	0.00086	0.00089	0.00092	0.00096	0.00099	0.00103	0.00106	0.00109	0.00113
3602303.58	0.00082	0.00085	0.00088	0.00091	0.00094	0.00097	0.00100	0.00103	0.00106

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72
3604353.58	0.00094	0.00095	0.00096	0.00096	0.00097	0.00097	0.00097	0.00097	0.00097
3604303.58	0.00101	0.00102	0.00102	0.00103	0.00103	0.00103	0.00103	0.00103	0.00103
3604253.58	0.00108	0.00109	0.00110	0.00111	0.00111	0.00111	0.00111	0.00111	0.00110
3604203.58	0.00117	0.00118	0.00118	0.00119	0.00119	0.00119	0.00119	0.00119	0.00118
3604153.58	0.00126	0.00127	0.00128	0.00128	0.00129	0.00129	0.00128	0.00128	0.00127
3604103.58	0.00136	0.00137	0.00138	0.00139	0.00139	0.00139	0.00139	0.00138	0.00137
3604053.58	0.00148	0.00149	0.00150	0.00150	0.00150	0.00150	0.00150	0.00149	0.00148

3604003.58 |	0.00161	0.00162	0.00163	0.00163	0.00164	0.00164	0.00163	0.00162	0.00161
3603953.58 |	0.00177	0.00178	0.00179	0.00179	0.00179	0.00179	0.00178	0.00177	0.00176
3603903.58 |	0.00196	0.00197	0.00197	0.00197	0.00197	0.00196	0.00195	0.00194	0.00193
3603853.58 |	0.00220	0.00220	0.00219	0.00219	0.00218	0.00217	0.00216	0.00214	0.00212
3603803.58 |	0.00248	0.00248	0.00246	0.00245	0.00243	0.00241	0.00239	0.00237	0.00235
3603753.58 |	0.00284	0.00282	0.00279	0.00277	0.00274	0.00270	0.00267	0.00264	0.00261
3603703.58 |	0.00330	0.00326	0.00321	0.00316	0.00310	0.00305	0.00300	0.00296	0.00291
3603653.58 |	0.00391	0.00382	0.00373	0.00364	0.00356	0.00348	0.00340	0.00333	0.00327
3603603.58 |	0.00474	0.00457	0.00440	0.00425	0.00412	0.00400	0.00389	0.00379	0.00371
3603553.58 |	0.00588	0.00556	0.00529	0.00504	0.00483	0.00465	0.00449	0.00436	0.00425
3603503.58 |	0.00756	0.00698	0.00651	0.00610	0.00577	0.00549	0.00526	0.00507	0.00492
3603453.58 |	0.01030	0.00918	0.00833	0.00764	0.00708	0.00665	0.00629	0.00601	0.00580
3603403.58 |	0.01582	0.01321	0.01143	0.01010	0.00910	0.00834	0.00777	0.00733	0.00701
3603353.58 |	0.03471	0.02370	0.01823	0.01487	0.01265	0.01114	0.01009	0.00934	0.00882
3603303.58 |	0.03445	0.04271	0.04893	0.02915	0.02106	0.01687	0.01441	0.01287	0.01188
3603253.58 |	0.01525	0.01939	0.02684	0.04460	0.04332	0.03724	0.02641	0.02139	0.01863
3603203.58 |	0.00993	0.01156	0.01378	0.01704	0.02236	0.03215	0.05322	0.04461	0.04995
3603153.58 |	0.00736	0.00825	0.00933	0.01068	0.01240	0.01462	0.01741	0.02084	0.02480
3603103.58 |	0.00582	0.00639	0.00703	0.00776	0.00860	0.00956	0.01059	0.01163	0.01261
3603053.58 |	0.00480	0.00519	0.00561	0.00607	0.00657	0.00709	0.00762	0.00812	0.00856
3603003.58 |	0.00406	0.00434	0.00464	0.00496	0.00528	0.00562	0.00594	0.00623	0.00649
3602953.58 |	0.00351	0.00372	0.00394	0.00417	0.00440	0.00463	0.00484	0.00504	0.00521
3602903.58 |	0.00307	0.00324	0.00341	0.00358	0.00375	0.00392	0.00407	0.00421	0.00433
3602853.58 |	0.00272	0.00286	0.00300	0.00313	0.00326	0.00338	0.00350	0.00360	0.00369
3602803.58 |	0.00243	0.00255	0.00266	0.00277	0.00287	0.00297	0.00305	0.00313	0.00320
3602753.58 |	0.00219	0.00229	0.00238	0.00247	0.00255	0.00263	0.00270	0.00276	0.00281
3602703.58 |	0.00199	0.00207	0.00215	0.00222	0.00229	0.00235	0.00241	0.00246	0.00250
3602653.58 |	0.00182	0.00189	0.00195	0.00201	0.00207	0.00212	0.00217	0.00221	0.00224
3602603.58 |	0.00167	0.00173	0.00179	0.00184	0.00188	0.00192	0.00196	0.00200	0.00202
3602553.58 |	0.00154	0.00159	0.00164	0.00168	0.00172	0.00175	0.00179	0.00181	0.00183
3602503.58 |	0.00143	0.00147	0.00151	0.00155	0.00158	0.00161	0.00163	0.00166	0.00167
3602453.58 |	0.00133	0.00136	0.00140	0.00143	0.00145	0.00148	0.00150	0.00151	0.00153
3602403.58 |	0.00124	0.00127	0.00130	0.00132	0.00134	0.00136	0.00138	0.00139	0.00141

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS) |	X-COORD (METERS)								
	498325.72	498375.72	498425.72	498475.72	498525.72	498575.72	498625.72	498675.72	498725.72
3602353.58 |	0.00116	0.00119	0.00121	0.00123	0.00125	0.00126	0.00127	0.00128	0.00130
3602303.58 |	0.00109	0.00111	0.00113	0.00115	0.00116	0.00117	0.00118	0.00119	0.00121

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,

L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72
3604353.58	0.00096	0.00096	0.00095	0.00095	0.00094	0.00094	0.00093	0.00093	0.00092
3604303.58	0.00103	0.00102	0.00101	0.00101	0.00100	0.00100	0.00099	0.00098	0.00097
3604253.58	0.00109	0.00109	0.00108	0.00107	0.00107	0.00106	0.00105	0.00104	0.00104
3604203.58	0.00117	0.00116	0.00115	0.00115	0.00114	0.00113	0.00112	0.00111	0.00110
3604153.58	0.00126	0.00125	0.00124	0.00123	0.00122	0.00121	0.00120	0.00119	0.00118
3604103.58	0.00136	0.00134	0.00133	0.00132	0.00130	0.00129	0.00128	0.00127	0.00126
3604053.58	0.00147	0.00145	0.00143	0.00142	0.00140	0.00139	0.00138	0.00137	0.00136
3604003.58	0.00159	0.00158	0.00155	0.00153	0.00151	0.00150	0.00149	0.00148	0.00147
3603953.58	0.00174	0.00172	0.00170	0.00167	0.00165	0.00163	0.00161	0.00161	0.00160
3603903.58	0.00191	0.00189	0.00187	0.00184	0.00181	0.00178	0.00176	0.00176	0.00175
3603853.58	0.00211	0.00208	0.00206	0.00203	0.00200	0.00197	0.00194	0.00193	0.00192
3603803.58	0.00233	0.00231	0.00227	0.00224	0.00221	0.00218	0.00216	0.00214	0.00212
3603753.58	0.00258	0.00255	0.00252	0.00249	0.00245	0.00243	0.00240	0.00238	0.00236
3603703.58	0.00288	0.00284	0.00281	0.00277	0.00274	0.00271	0.00269	0.00266	0.00264
3603653.58	0.00322	0.00318	0.00314	0.00311	0.00307	0.00304	0.00302	0.00300	0.00297
3603603.58	0.00364	0.00359	0.00354	0.00350	0.00347	0.00344	0.00342	0.00340	0.00338
3603553.58	0.00416	0.00409	0.00404	0.00399	0.00396	0.00393	0.00391	0.00389	0.00388
3603503.58	0.00480	0.00472	0.00465	0.00460	0.00457	0.00455	0.00454	0.00453	0.00452
3603453.58	0.00564	0.00553	0.00545	0.00540	0.00538	0.00537	0.00537	0.00538	0.00539
3603403.58	0.00679	0.00663	0.00654	0.00650	0.00649	0.00650	0.00654	0.00659	0.00664
3603353.58	0.00847	0.00826	0.00814	0.00811	0.00814	0.00821	0.00831	0.00844	0.00857
3603303.58	0.01128	0.01094	0.01080	0.01081	0.01094	0.01115	0.01142	0.01175	0.01210
3603253.58	0.01722	0.01652	0.01632	0.01653	0.01705	0.01782	0.01877	0.01987	0.02112
3603203.58	0.04198	0.03820	0.03739	0.03973	0.04412	0.05152	0.05052	0.04573	0.03646
3603153.58	0.02784	0.02996	0.03043	0.02905	0.02720	0.02512	0.02327	0.02167	0.02027
3603103.58	0.01337	0.01387	0.01404	0.01390	0.01358	0.01315	0.01270	0.01225	0.01181
3603053.58	0.00891	0.00914	0.00924	0.00923	0.00914	0.00898	0.00879	0.00859	0.00839
3603003.58	0.00669	0.00683	0.00690	0.00692	0.00688	0.00681	0.00671	0.00660	0.00648
3602953.58	0.00534	0.00544	0.00549	0.00551	0.00550	0.00546	0.00540	0.00533	0.00525
3602903.58	0.00443	0.00450	0.00454	0.00456	0.00456	0.00454	0.00450	0.00445	0.00438
3602853.58	0.00376	0.00382	0.00385	0.00387	0.00387	0.00386	0.00383	0.00379	0.00373
3602803.58	0.00326	0.00330	0.00333	0.00335	0.00335	0.00333	0.00331	0.00327	0.00323
3602753.58	0.00286	0.00289	0.00291	0.00293	0.00293	0.00292	0.00290	0.00286	0.00282
3602703.58	0.00254	0.00256	0.00258	0.00259	0.00259	0.00258	0.00256	0.00253	0.00249
3602653.58	0.00227	0.00229	0.00230	0.00231	0.00231	0.00230	0.00228	0.00226	0.00223
3602603.58	0.00205	0.00206	0.00208	0.00209	0.00209	0.00207	0.00205	0.00204	0.00202
3602553.58	0.00185	0.00187	0.00188	0.00189	0.00189	0.00188	0.00186	0.00185	0.00183
3602503.58	0.00169	0.00170	0.00171	0.00172	0.00172	0.00171	0.00170	0.00169	0.00167
3602453.58	0.00154	0.00156	0.00157	0.00157	0.00157	0.00157	0.00156	0.00155	0.00153
3602403.58	0.00142	0.00143	0.00144	0.00144	0.00145	0.00145	0.00144	0.00143	0.00142

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,

L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	498775.72	498825.72	498875.72	498925.72	498975.72	499025.72	499075.72	499125.72	499175.72
3602353.58	0.00131	0.00132	0.00133	0.00134	0.00134	0.00134	0.00134	0.00132	0.00132
3602303.58	0.00122	0.00123	0.00124	0.00124	0.00125	0.00125	0.00124	0.00123	0.00123

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72
3604353.58	0.00091	0.00090	0.00089	0.00088	0.00087	0.00086	0.00085	0.00083	0.00082
3604303.58	0.00096	0.00095	0.00094	0.00093	0.00092	0.00091	0.00090	0.00088	0.00086
3604253.58	0.00103	0.00102	0.00100	0.00099	0.00098	0.00097	0.00095	0.00093	0.00092
3604203.58	0.00109	0.00108	0.00107	0.00106	0.00104	0.00103	0.00101	0.00099	0.00097
3604153.58	0.00117	0.00116	0.00115	0.00113	0.00112	0.00110	0.00108	0.00106	0.00104
3604103.58	0.00125	0.00124	0.00123	0.00121	0.00120	0.00118	0.00116	0.00113	0.00111
3604053.58	0.00135	0.00134	0.00132	0.00131	0.00129	0.00127	0.00124	0.00122	0.00119
3604003.58	0.00146	0.00145	0.00143	0.00141	0.00139	0.00137	0.00134	0.00131	0.00128
3603953.58	0.00159	0.00157	0.00155	0.00153	0.00151	0.00148	0.00145	0.00142	0.00138
3603903.58	0.00173	0.00172	0.00170	0.00168	0.00165	0.00162	0.00158	0.00154	0.00150
3603853.58	0.00190	0.00188	0.00186	0.00184	0.00181	0.00177	0.00173	0.00169	0.00164
3603803.58	0.00210	0.00208	0.00206	0.00203	0.00199	0.00195	0.00191	0.00186	0.00180
3603753.58	0.00234	0.00231	0.00228	0.00225	0.00221	0.00216	0.00211	0.00205	0.00199
3603703.58	0.00261	0.00259	0.00256	0.00252	0.00247	0.00242	0.00236	0.00229	0.00221
3603653.58	0.00295	0.00292	0.00288	0.00284	0.00279	0.00273	0.00266	0.00258	0.00249
3603603.58	0.00335	0.00332	0.00329	0.00324	0.00319	0.00312	0.00304	0.00295	0.00284
3603553.58	0.00386	0.00384	0.00380	0.00376	0.00370	0.00363	0.00353	0.00342	0.00328
3603503.58	0.00451	0.00450	0.00448	0.00444	0.00438	0.00430	0.00419	0.00405	0.00387
3603453.58	0.00541	0.00541	0.00540	0.00538	0.00533	0.00524	0.00511	0.00493	0.00470
3603403.58	0.00669	0.00674	0.00677	0.00678	0.00676	0.00667	0.00651	0.00628	0.00595
3603353.58	0.00872	0.00885	0.00899	0.00910	0.00915	0.00909	0.00891	0.00857	0.00807
3603303.58	0.01249	0.01288	0.01331	0.01377	0.01413	0.01425	0.01404	0.01344	0.01244
3603253.58	0.02255	0.02418	0.02614	0.02864	0.03170	0.03305	0.03266	0.03052	0.02610
3603203.58	0.04316	0.05545	0.04671	0.03998	0.03485	0.03301	0.03307	0.03536	0.04357
3603153.58	0.01903	0.01792	0.01692	0.01601	0.01525	0.01482	0.01476	0.01520	0.01629
3603103.58	0.01139	0.01097	0.01058	0.01024	0.00995	0.00976	0.00969	0.00980	0.01010
3603053.58	0.00818	0.00794	0.00773	0.00754	0.00738	0.00725	0.00718	0.00718	0.00725
3603003.58	0.00635	0.00620	0.00605	0.00592	0.00580	0.00569	0.00561	0.00557	0.00555
3602953.58	0.00516	0.00505	0.00493	0.00483	0.00473	0.00463	0.00452	0.00447	0.00443
3602903.58	0.00430	0.00422	0.00413	0.00403	0.00394	0.00384	0.00371	0.00367	0.00363

3602853.58	0.00367	0.00359	0.00351	0.00343	0.00335	0.00326	0.00314	0.00310	0.00307
3602803.58	0.00317	0.00310	0.00302	0.00295	0.00289	0.00282	0.00273	0.00269	0.00264
3602753.58	0.00278	0.00271	0.00265	0.00259	0.00254	0.00248	0.00242	0.00237	0.00232
3602703.58	0.00245	0.00241	0.00236	0.00230	0.00226	0.00222	0.00217	0.00213	0.00207
3602653.58	0.00220	0.00217	0.00212	0.00208	0.00204	0.00201	0.00197	0.00192	0.00187
3602603.58	0.00199	0.00196	0.00193	0.00189	0.00186	0.00183	0.00179	0.00175	0.00171
3602553.58	0.00181	0.00179	0.00176	0.00173	0.00170	0.00167	0.00164	0.00160	0.00156
3602503.58	0.00165	0.00164	0.00162	0.00160	0.00157	0.00154	0.00151	0.00147	0.00144
3602453.58	0.00152	0.00151	0.00149	0.00147	0.00145	0.00142	0.00138	0.00135	0.00132
3602403.58	0.00141	0.00139	0.00138	0.00136	0.00134	0.00131	0.00128	0.00125	0.00121

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	499225.72	499275.72	499325.72	499375.72	499425.72	499475.72	499525.72	499575.72	499625.72
3602353.58	0.00131	0.00129	0.00128	0.00126	0.00124	0.00121	0.00118	0.00115	0.00111
3602303.58	0.00122	0.00121	0.00119	0.00118	0.00115	0.00113	0.00109	0.00106	0.00103

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3604353.58	0.00080	0.00078	0.00076	0.00074	0.00072	0.00070
3604303.58	0.00084	0.00082	0.00080	0.00078	0.00076	0.00073
3604253.58	0.00090	0.00087	0.00085	0.00082	0.00080	0.00078
3604203.58	0.00095	0.00093	0.00090	0.00087	0.00085	0.00082
3604153.58	0.00101	0.00099	0.00096	0.00093	0.00090	0.00087
3604103.58	0.00108	0.00105	0.00102	0.00099	0.00095	0.00092
3604053.58	0.00116	0.00113	0.00109	0.00105	0.00101	0.00098
3604003.58	0.00124	0.00121	0.00117	0.00112	0.00108	0.00104
3603953.58	0.00134	0.00130	0.00125	0.00121	0.00116	0.00111
3603903.58	0.00145	0.00141	0.00135	0.00130	0.00125	0.00119
3603853.58	0.00159	0.00153	0.00147	0.00141	0.00135	0.00128

3603803.58	0.00174	0.00167	0.00160	0.00153	0.00146	0.00139
3603753.58	0.00192	0.00184	0.00176	0.00168	0.00159	0.00151
3603703.58	0.00213	0.00204	0.00194	0.00184	0.00174	0.00164
3603653.58	0.00239	0.00228	0.00216	0.00204	0.00192	0.00180
3603603.58	0.00272	0.00258	0.00244	0.00229	0.00213	0.00198
3603553.58	0.00312	0.00295	0.00276	0.00257	0.00237	0.00217
3603503.58	0.00365	0.00343	0.00318	0.00293	0.00267	0.00242
3603453.58	0.00440	0.00408	0.00375	0.00340	0.00307	0.00277
3603403.58	0.00553	0.00506	0.00458	0.00409	0.00363	0.00320
3603353.58	0.00743	0.00670	0.00593	0.00515	0.00444	0.00380
3603303.58	0.01118	0.00979	0.00837	0.00697	0.00573	0.00466
3603253.58	0.02125	0.01731	0.01381	0.01065	0.00803	0.00600
3603203.58	0.04162	0.04003	0.03482	0.02059	0.01302	0.00817
3603153.58	0.01823	0.02174	0.03035	0.03740	0.03512	0.01139
3603103.58	0.01061	0.01144	0.01286	0.01517	0.01711	0.00938
3603053.58	0.00739	0.00759	0.00781	0.00789	0.00728	0.00569
3603003.58	0.00555	0.00554	0.00548	0.00526	0.00480	0.00409
3602953.58	0.00438	0.00431	0.00419	0.00397	0.00364	0.00323
3602903.58	0.00358	0.00350	0.00338	0.00319	0.00296	0.00268
3602853.58	0.00301	0.00294	0.00283	0.00268	0.00250	0.00230
3602803.58	0.00260	0.00252	0.00243	0.00231	0.00217	0.00202
3602753.58	0.00228	0.00221	0.00213	0.00203	0.00192	0.00180
3602703.58	0.00202	0.00196	0.00189	0.00181	0.00172	0.00162
3602653.58	0.00183	0.00177	0.00171	0.00164	0.00156	0.00147
3602603.58	0.00166	0.00161	0.00156	0.00149	0.00142	0.00135
3602553.58	0.00152	0.00148	0.00143	0.00137	0.00130	0.00124
3602503.58	0.00140	0.00136	0.00131	0.00125	0.00120	0.00115
3602453.58	0.00128	0.00124	0.00120	0.00115	0.00112	0.00108
3602403.58	0.00118	0.00114	0.00111	0.00107	0.00105	0.00102

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)					
	499675.72	499725.72	499775.72	499825.72	499875.72	499925.72
3602353.58	0.00108	0.00106	0.00104	0.00102	0.00100	0.00097
3602303.58	0.00100	0.00099	0.00098	0.00097	0.00095	0.00092

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
498707.31	3603388.95	0.00758	498738.50	3603361.83	0.00837
498762.45	3603361.38	0.00823	498791.37	3603361.83	0.00807
498803.12	3603387.14	0.00716	498821.20	3603319.80	0.00991
498788.21	3603307.60	0.01088	498758.38	3603309.86	0.01098
498737.14	3603308.50	0.01133	498711.83	3603309.86	0.01159
498701.89	3603334.72	0.01004	498746.18	3603289.52	0.01284
498771.04	3603290.43	0.01242	498773.30	3603271.00	0.01453
498821.20	3603276.87	0.01333	498816.68	3603255.63	0.01626

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 3 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.05545 AT (499275.72, 3603203.58, 141.90, 141.90, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.05322 AT (498625.72, 3603203.58, 142.00, 142.00, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.05152 AT (499025.72, 3603203.58, 141.50, 141.50, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.05085 AT (498125.72, 3603403.58, 137.80, 137.80, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.05052 AT (499075.72, 3603203.58, 141.50, 141.50, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.04995 AT (498725.72, 3603203.58, 142.00, 142.00, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.04893 AT (498425.72, 3603303.58, 140.90, 140.90, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.04891 AT (498025.72, 3603453.58, 133.90, 133.90, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.04671 AT (499325.72, 3603203.58, 142.00, 142.00, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.04663 AT (498225.72, 3603353.58, 140.00, 140.00, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: NonDFAULT CONC FLAT and ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 38 Warning Message(s)
A Total of 895 Informational Message(s)

A Total of 26304 Hours Were Processed

A Total of 421 Calm Hours Identified

A Total of 474 Missing Hours Identified (1.80 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

CO W320	22	URBOPT: Input Parameter May Be Out-of-Range for Parameter	URB-POP
RE W213	1166	RECART: ELEV Input Inconsistent With Option: Input Ignored	UCART1
MX W441	14167	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081407
MX W441	14168	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081408
MX W441	14169	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081409
MX W441	14170	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081410
MX W441	14171	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081411
MX W441	14172	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081412
MX W441	14173	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081413
MX W441	14174	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081414
MX W441	14175	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081415
MX W441	14176	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081416
MX W441	14177	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081417
MX W441	14178	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081418
MX W441	14191	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081507
MX W441	14192	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081508
MX W441	14193	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081509
MX W441	14194	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081510
MX W441	14195	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081511
MX W441	14196	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081512
MX W441	14197	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081513
MX W441	14198	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081514
MX W441	14199	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081515
MX W441	14200	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081516
MX W441	14201	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081517
MX W441	14202	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081518
MX W441	14215	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081607
MX W441	14216	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081608
MX W441	14217	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081609
MX W441	14218	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081610
MX W441	14219	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081611
MX W441	14220	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081612
MX W441	14221	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081613
MX W441	14222	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081614
MX W441	14223	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081615
MX W441	14224	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081616
MX W441	14225	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081617
MX W441	14226	METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=	11081618

****
*** AERMOD Finishes Successfully ***
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4135.1 California Terraces PA61 Lot 1
Health Risk Assessment
Health Risk Calculation

Max Concentration: 0.01626

Onsite Maximum Exposure	Resident					
	3rd Trimester	0<2	2<9	2<16	16<30	16-70
Cair	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02
DBR	361	1090	861	745	335	290
A	1	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96	0.96
Dose-air	5.64E-06	1.70E-05	1.34E-05	1.16E-05	5.23E-06	4.53E-06
CPF	1.10	1.10	1.10	1.10	1.10	1.10
ASF	10	10	3	3	1	1
ED	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	0.73
Risk in 1 mill	**0.19**	**4.55**	**3.19**	**5.53**	**0.84**	**2.80**
	5.00	5.00	5.00	5.00	5.00	5.00
Chronic Exposure	**0.0033**	**0.0033**	**0.0033**	**0.0033**	**0.0033**	**0.0033**

0-9	7.93	9.25
0-30	11.10	30.25
0-70	13.06	70.25