AIR QUALITY ASSESSMENT

Chino Valley Fire Station 68 Development
City of Chino Hills, CA

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1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine potential significant air quality impacts (if any) that may be created by construction, area or operational emissions (short term or long term) from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less than significant.

1.2 Project Location

The proposed Project site is generally located south of the intersection of Pipeline Avenue and Soquel Canyon Road in Chino Hills, CA. A project vicinity map is shown in Figure 1-A.

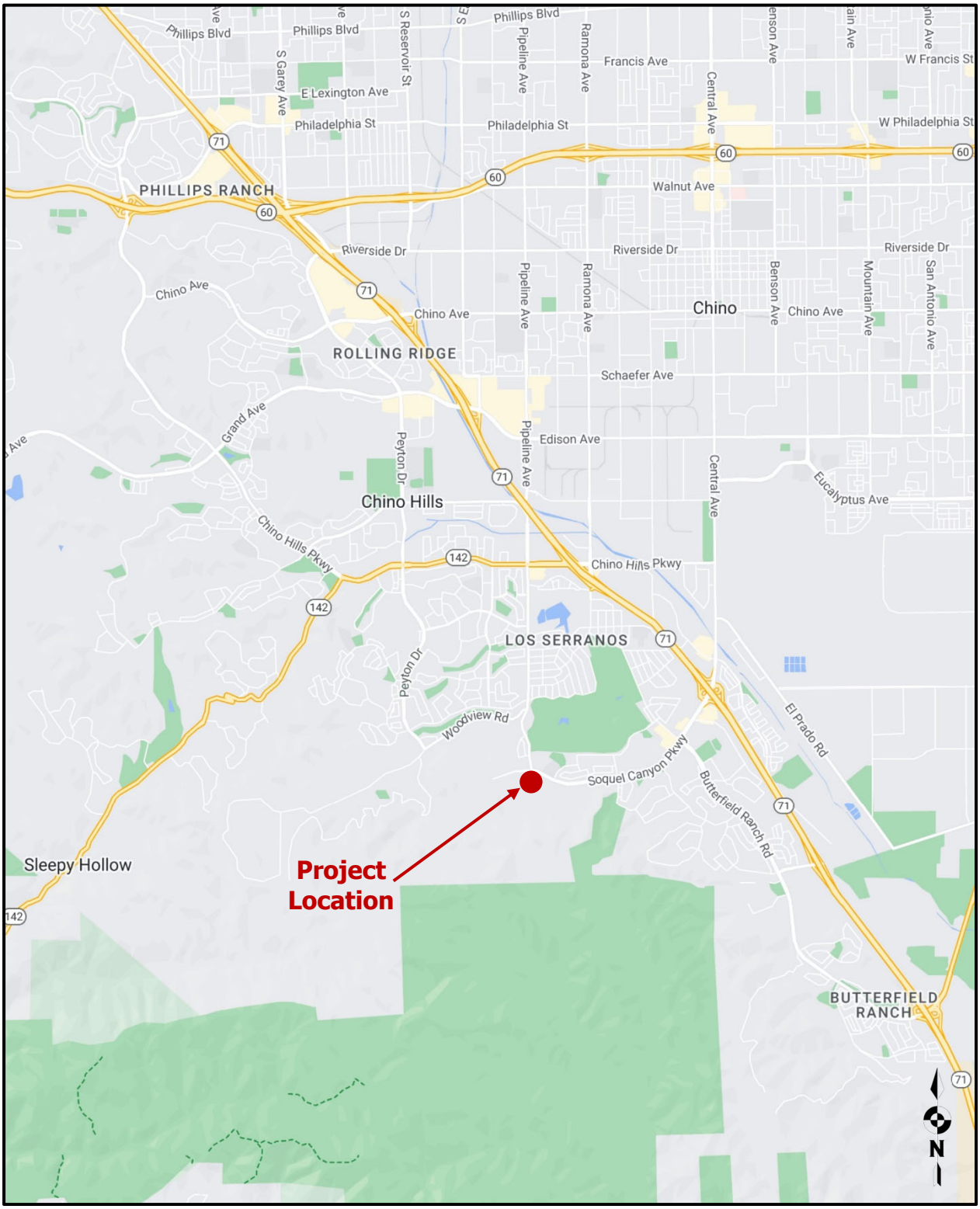
1.3 Project Description

The Chino Valley Fire District (CVFD) identified a significant need to build a fire station in the Soquel Canyon area of Chino Hills through a Standards of Cover Assessment and Master Plan update conducted in 2018. To support this requirement, The CVFD is proposing to construct a new fire station and emergency resource facility (ERF) which is expected to consist of approximately 18,745 square-foot in total on a 3.74 acre project site. Site improvements proposed include approximately 56,115-square-feet of hardscape including visitor and secured parking areas, 88,600 square-feet of landscaping, security fencing, concrete masonry site walls, hose tower, an emergency generator, an above ground fuel dispensing tank, and carports with PV arrays. The Project is expected to commence in early 2024 and be completed in early 2025. The project would require 14,307 Cubic Yards (CY) of export during the grading operations.

Following the construction of the Project, operations of the new Fire Station and ERF will be added to the three existing Chino Hills fire stations, under the Chino Valley Fire District in order to maintain the appropriate levels of response times to calls for service within its service area.

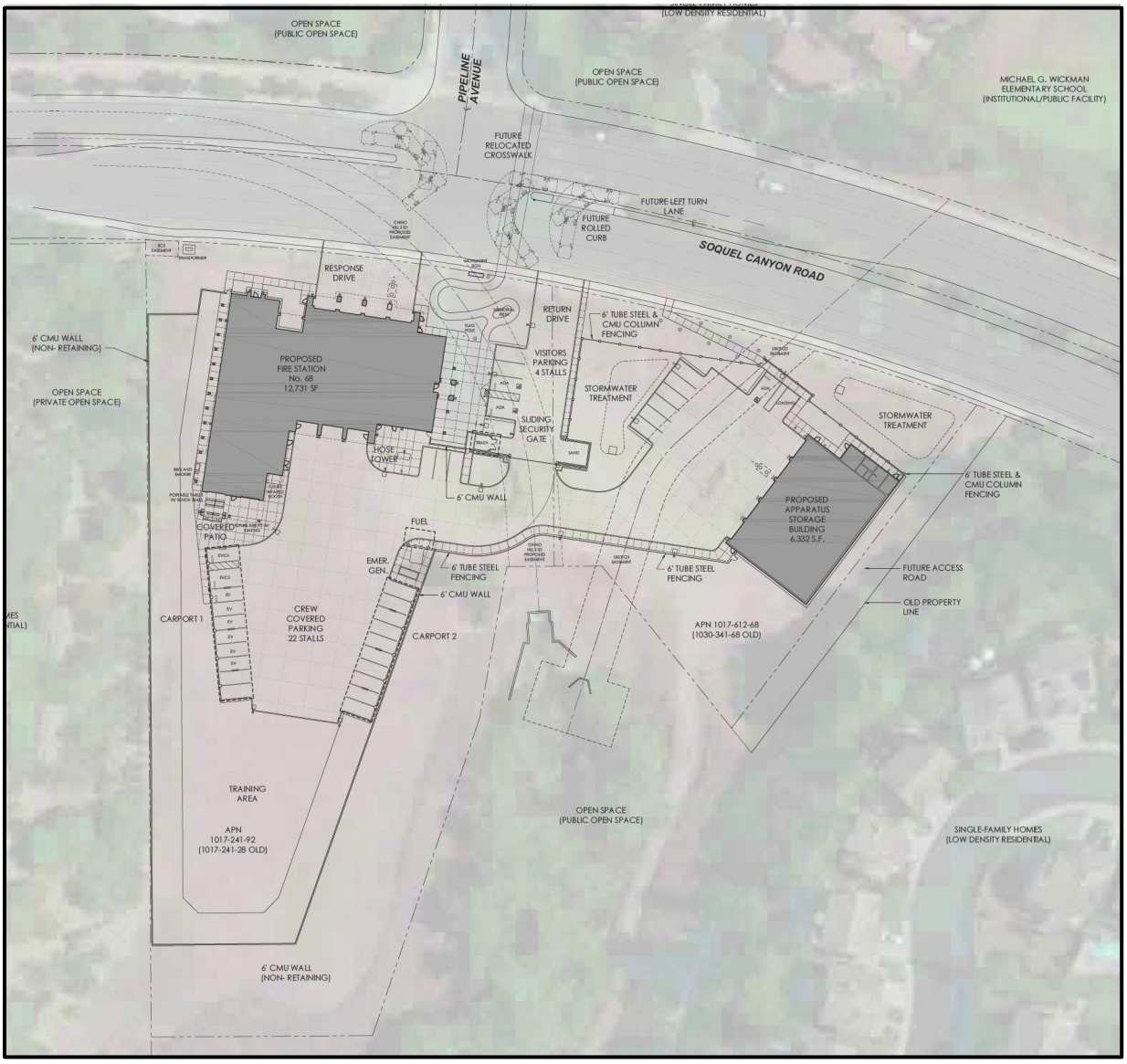
The Fire Department anticipate eight calls daily at the opening and forecasts as many as 12 calls per day at the peak. The site expects to operate with as little as one ladder truck or an engine company, an ambulance as well as a Battalion Chief unit. The project site plan is shown in Figure 1-B.

Figure 1-A: Project Vicinity Map



Source: (Google, 2023)

Figure 1-B: Site Plan Map



Source: (PBK Architects, 2023)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The project is located on two separate parcels having assessor's Parcel Numbers (APN) 1017-241-28 and 1030-341-68. The site is zoned within Planned Development PD-41-163 (Kaufman and Broad, south of Soquel Canyon Parkway). The Project site is designated under the General Plan Land Use Map as Institutional/Public Facility and Public Open Space. The Project proposes to change the portion of the designated Public Open Space to Institutional/Public Facility. The surrounding area to the east is also zoned within PD-41-163 with the single-family residential areas designated as Low Density Residential and Public Open Space.

The Mark Wickham Elementary School to the northeast is under Planned District PD-43-161 and is designated as Institutional/Public Facility. Other portions of the surrounding areas are zoned as private open space (OS-1) with low density residential (R-S) to the west, and public open space (OS-2) with low density residential (R-S) to the north.

The site topography ranges in elevation from roughly 765 feet above mean sea level (MSL) on the northeastern boundary to approximately 800 feet above MSL on the southwestern boundary.

2.2 Climate and Meteorology

The Project is located in the South Coast Air Basin (SCAB). Climate within the SCAB area often varies dramatically over short geographical distances due to the size and topography. Most of southern California is dominated by high-pressure systems for much of the year, which keeps Chino Hills mostly sunny and warm. Typically, during the winter months, the high-pressure system drops to the south and brings cooler, moister weather from the north.

It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SCAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Daytime temperature highs within the City of Chino Hills typically range between 60 ºF in the winter to approximately 89 ºF in the summer with the month of August usually being the hottest month. Chino Hills usually receives an average seasonal precipitation of 21 inches of rain per year with the months of February and March usually being the wettest months of the year (City Data, 2023)

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits to protect public health which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare and include protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The Environmental Protection Agency's (EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards (NAAQS) for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below (EPA, 2022):

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen* (EPA, 2022).
2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children* (EPA, 2022).
3. ***Nitrogen Dioxide (NO_2):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with*

respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children (EPA, 2022).

4. ***Particulate Matter (PM_{10} or $PM_{2.5}$):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM_{10} particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness* (EPA, 2022).
5. ***Ozone (O_3)****: Ozone at the ground level is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics* (EPA, 2022).

   It should be noted that Oxides of Nitrogen (NO_x) is a family of poisonous, highly reactive gases. These gases form when fuel is burned at high temperatures. NO_x pollution is emitted by automobiles, trucks and various non-road vehicles (e.g., construction equipment, boats, etc.) as well as industrial sources such as power plants, industrial boilers, cement kilns, and turbines. NO_x often appears as a brownish gas. It is a strong oxidizing agent and plays a major role in the atmospheric reactions with Volatile Organic Compounds (VOCs) which produces ozone on hot summer days (EPA, 2023).
6. ***Sulfur Dioxide (SO_2)****: is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality* (EPA, 2022).

2.3.2 State Standards and Definitions

The State of California Air Resources Board (ARB) sets the laws and regulations for air quality at State level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS in that the State standards also restrict four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. ***Visibility Reducing Particles****: Particles in the Air that obstruct the visibility* (CARB, 2023).
2. ***Sulfates****: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain* (CARB, 2023).
3. ***Hydrogen Sulfide (H_2S)****: is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death* (CARB, 2023).
4. ***Vinyl Chloride****: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC)* (CARB, 2023).

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	**Average Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)[8]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188/ µg/m3)	-	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 14				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual 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 PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact 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 procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. 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 PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 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 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard 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 SO2 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 SO2 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 nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
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/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment 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 CARB 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: (California Air Resources Board, 5/4/2016)

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants for designated periods defined in the footnote of Table 2.1 above are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the $PM_{2.5}$ standard. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basins to attain ambient air quality standards.

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the SCAB, and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The district prepares Air Quality Management Plans (AQMP) to demonstrate how the region will reduce air pollution emissions to meet the federal and state health-based standards to comply with Clean Air Act requirements and will be ultimately a part of the SIP. The SCAQMD just updated and adopted their AQMP (SCAQMD, 2022).

The latest AQMP identifies the path South Coast Air Basin must take for the attainment of federal PM and ozone standards and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The plan also includes a number of measures to incorporate NOx reduction requirements which would be necessary to achieve attainment in the future.

The City of Chino Hills Valley lies within the SCAB. The SCAQMD is the government agency, which regulates sources of air pollution within the City of Chino Hills. A complete listing of the current attainment status by pollutants for the SCAB is shown on Table 2.2.

Table 2.2: South Coast Air Basin Attainment Status by Pollutant

County Air Basin Attainment Status by Pollutant			
Pollutant	Average Time	California Standards	Federal Standards
Ozone (O_3)	1 Hour	Non-attainment	Nonattainment (Extreme)
	8 Hour		
Respirable Particulate Matter (PM10)	24 Hour	Non-attainment	Serious Nonattainment
	Annual Arithmetic Mean		Serious Nonattainment
Fine Particulate Matter PM2.5	24 Hour	No State Standard	Non-attainment
	Annual Arithmetic Mean	Non-attainment	Non-attainment
Carbon Monoxide (CO)	8 hour	Attainment	Attainment Maintenance[1]
	1 hour		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	No State Standard	Attainment
	1 Hour	Non-attainment	No Federal Standard
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	No State Standard	Attainment
	24 Hour	Attainment	Attainment
	1 Hour	Attainment	No Federal Standard
Lead	30 Day Average	Attainment	No Federal Standard
	Calendar Quarter	No State Standard	Attainment

1. Maintenance Area (defined by U.S. Department of Transportation) is any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended.

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in the most recent CEQA guidelines Appendix G (California, 2018):

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

A: Conflict with or obstruct implementation of the SCAQMD AQMP or applicable portions of the State Implementation Plan (SIP)?

B: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard.

C: Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

D: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

2.5 Air Quality Impact Assessment Screening Thresholds

To determine whether a project would create potential air quality impacts, the City of Chino Hills uses South Coast Air Quality Management District's (SQAQMD) Screening Level Thresholds[1] (SLTs) for use in determining CEQA air quality impacts. The screening thresholds for construction and daily operations are shown in Table 2.3 below.

Demonstrating a projects compliance with SCAQMD Screening thresholds are a significant part of demonstrating compliance with SCAQMDs AQMP and is critical to insuring less than significant impacts to questions A and B identified in section 2.4 above. In addition, since SLTs were developed to align with attainment of both state and federal standards for the purpose of long term health, minimizing Project emissions to levels less than these screening thresholds is the impetus to reducing the magnitude of long-term air quality impacts from emissions of criteria pollutants and ozone precursors to less than significant.

Table 2.3: Screening Threshold for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	150 and 55
Nitrogen Oxide (NO_x)	100
Sulfur Oxide (SO_x)	150
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Operational Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	150 and 55
Nitrogen Oxide (NO_x)	55
Sulfur Oxide (SO_x)	150
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	55

[1] SCAQMD SLTs are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS. The federal and State ambient air quality standards, in turn, are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. Projects generating emissions exceeding SLTs have a potential to increase human health risks and should be avoided as was established by the California Supreme Court through its decision in Sierra Club v. County of Fresno (226 Cal.App.4th 704).

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the SCAB. This data is used to track ambient air quality patterns throughout the surrounding area. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SCAPCD is responsible for monitoring and reporting monitoring data. The District operates approximately 30 monitoring sites that collected data on criteria pollutants within the SCAB.

Ambient Data was obtained from the California Environmental Protection Agency's Air Resources Board Website (California Air Resources Board, 2021). Table 2.4 identifies the criteria pollutants monitored closest to the Project site which is the Upland monitoring station located at 1350 San Bernardino Road in the City of Upland.

Table 2.4: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant	Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2019	2020	2021
O_3 (ppm)	upland	1 Hour	0.09 ppm	-	0.131	0.158	0.124
		8 Hour	0.070 ppm	0.075 ppm	0.107	0.123	0.100
PM_{10} (µg/m^3)		24 Hour	50 µg/m^3	150 µg/m^3	125.9	174.8	124.3
		Annual Arithmetic Mean	20 µg/m^3	-	29.0	33.5	32.6
$PM_{2.5}$ (µg/m^3)	San Bernardino – 4th Street	24 Hour	-	35 µg/m^3	91.1	74.0	83.8
		Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	Data Not Provided	Data Not Provided	Data Not Provided
NO_2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Data Not Provided	0.013	0.014
		1 Hour	0.18 ppm	-	0.057	0.055	0.065

All ambient emissions reported are assumed to be taken by the district in compliance with both the NAAQS and CAAQS. Methodologies for those measurements are discussed in Table 2.1 of this report.

2.7 Localized Significance Thresholds

In June 2003 the SCAQMD proposed a methodology for calculating LSTs for NO_2, CO, $PM_{2.5}$ and PM_{10}. The LST methodology was developed to be used as a tool to assist lead agencies to analyze localized impacts associated with project-specific level proposed projects and would not be applicable to regional projects such as general plans. The LST methodology was last updated to incorporate the most recent ambient air quality standards (July 2008). (South Coast Air Quality Management District, 2008). The LST methodology is often utilized by most agencies governed under SCAQMD CEQA review. SCAQMD developed mass rate look-up tables for projects to assist agencies with development of LSTs (South Coast Air Quality Management District, 2014).

Per the requirements of SCAQMDs LSTs methodology, emissions for gases in attainment such as NO_2 and CO are calculated by adding emission impacts from the project development to the peak background ambient NO_2 and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. Also, according to SCAQMD Rule 403, emissions for non-attainment particulate matter such as PM 10 and PM 2.5 can produce no more than 10.4 $\mu g/m^3$. The LSTs derived by SCAQMD differentiated by Source Receptor area for which the proposed project is would be represented by SRA #33 within the Southwest San Bernardino area. The project was analyzed using a construction schedule where all buildings are under construction simultaneously using the appropriate equipment and quantities for this scenario with a 2-acre disturbed area. Table 2/5 below shows the worst case project LST at 25 meters (SCAQMD, 2009).

Table 2.5: LST Emission Thresholds (2-Acre Site)

Pollutant	LST @ 25 meters (lb/day)
CO	1,232
PM_{10} (Construction)	6
PM_{10} (Operation)	2
$PM_{2.5}$ (Construction)	5
$PM_{2.5}$ (Operation)	2
NO_2 (Corrected utilizing NO_2/NO_x Ratio) Construction and Operation	170

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the CalEEMod 2020.4.0 air quality model, which was developed by Breeze Software for SCAQMD in 2021. Emissions from the construction phase of the project were estimated using the CalEEMod Model, Version 2020.4.0[2] which is a conservative air quality model in the CalEEMod lineup.

CalEEMod relies on the total area of the site and estimates site disturbance based on the maximum acres that can be graded given the construction equipment input in an 8-hour day. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project. Construction emissions have several different types of sources which contribute to emissions of pollutants. These source types include off-road equipment usage, on-road vehicle travel, fugitive dust, architectural coating, and paving off-gassing. The CalEEMod construction module also uses OFFROAD2011 for default emission rates for construction equipment. The CalEEMod input/output model is shown in ***Attachment A*** to this report.

Fugitive dust calculations for grading within CalEEMod are based on methodologies described in Section 11.9, Western Surface Coal Mining, of the USEPA AP-42 which estimates the emission factor of PM_{10} applying a scaling factor to that of PM15. Similarly, the emission factor of $PM_{2.5}$ is scaled from that of total suspended particulates (TSP). This methodology was adopted by SCAQMD as the preferred method for fugitive dust emissions calculations. This method utilizes maximum area method based on assumed disturbed grading areas.

Significant health risks or increased risks of cancerous and non-cancerous health problems can occur when sensitive receptors (i.e., Schools, Daycares, or Residential Care Facilities) are exposed to Toxic Air Contaminants (TAC) for a significant quantity of time. Normally these impacts are analyzed over a period of 9, 30 or 70 years of continuous exposure or what is typically referred to as full lifetime and encompasses periods of potentially increased

[2] Since the analysis was started, an updated version of CalEEMod has been released by SCAQMD. The updated version of the model Version 2022.1.1.14 is the latest update to CalEEMod and brings a new web-based platform, with many new features and components, such as a geospatial interface, location-specific vehicle miles traveled analysis, climate risks analysis, and health and equity. These significant updates enable CalEEMod to deliver enhanced analysis of GHG and criteria pollutant emissions and support local governments to better address climate change, public health, and equity. The latest version of CalEEMod includes construction equipment emission factors from OFFROAD 2017-ORION Version 1.0.1, which takes into account phaseout of older equipment and additional control measures. Mobile source emissions were calculated using EMFAC2021, which also includes phaseout of older vehicles and updated emission control measures. The 2020 version of CalEEMod provides a more conservative and consistent estimate of emissions for the project because it does not include the additional control measures included in the updated version which has been updated 30 times since it was released.

susceptibility to adverse health effects from chemical exposure, particularly during infancy, childhood and the later years of life. From a practical standpoint, chronic exposure for humans is considered to be greater than 12% of a lifetime of 70 years or at least 8 years in 70 (Office of Environmental Health Hazard Assessment, August 2003).

Health risks are analyzed for projects by completing air dispersion models for diesel particulates matter (DPM) released onsite from diesel equipment onsite and using the dispersed emissions at nearby sensitive receptors to determine if cancer risks are increased to greater than 10 in one million. If this increased risk is greater than 10, the project would be required to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. Generally, this requires using equipment that has diesel particulate filters installed on the exhaust stacks of the equipment or specialized equipment designed to limit diesel particulates.

The United States EPA first began adopting emission standards for Non- Road Diesel Engines in 1994. The standards are published in the US Code of Federal Regulations, Title 40, Part 89. The regulations are better known as the Tier 1-4 standards with each Tier generally requiring more stringent emission standards for diesel engines. Originally, this was limited to equipment sizes exceeding 50 HP. However, in 1998, Tier 1 regulations were also adopted for equipment under 50 HP and more stringent Tier 2 and Tier 3 standards for all equipment have been phased in from 2000 to 2008. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts) (DieselNet, 2013). It should also be noted that Tier 3 standards only apply to engines greater than 50 HP and Tier 1 and -2 standards are required for all portable engines.

On May 11, 2004, the EPA signed the final rule introducing Tier 4 emissions standards, which are to be phased in over the period of 2008-2015 under Federal Register 69 FR 38957-39273 (US EPA, 2004). The requirements of Tier 4 standards require that emissions of PM and NOx be further reduced by 90% which can be achieved through control technologies including advanced exhaust gas after treatment.

To simplify matters, the CVFD has indicated that all construction equipment would be Tier 4 rated since Tier 4 equipment is common and sensitive receptors are adjacent to the Project site. Given this, construction health risk impacts from diesel particulates would be less than significant.

Chronic Non-Cancer risks are also known with respect to diesel particulate matter (DPM) and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health

Hazard Assessment (OEHHA, February 2015). Diesel Exhaust has a REL of 5 µg/m^3 and targets the respiratory system. Non-Cancer risks would also be less than significant since the Project would use Tier 4 construction equipment.

3.2 Construction Assumptions

Pending approval, the Project is expected to kick off construction in early 2024 with full buildout expected roughly one year later in 2025. The project site has some development onsite consisting of multiple buildings. To minimize dust and construction diesel particulate emissions, the project will wet the construction site at least three times daily and utilize Tier 4 diesel construction equipment. Table 3.1 shows the expected timeframes as well as the expected number of pieces of equipment to complete the project for the scenario identified.

Table 3.1: Proposed Construction Phase and Duration

Equipment Identification	Proposed Start	Proposed Completion	Quantity
Site Preparation	1/1/2024	1/26/2024	
Rubber Tired Dozers			2
Tractors/Loaders/Backhoes			2
Grading	1/27/2024	3/1/2024	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			3
Building Construction	3/2/2024	1/17/2025	
Cranes			1
Forklifts			1
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			
Paving	12/25/2024	1/17/2025	
Cement and Mortar Mixers			2
Pavers			1
Paving Equipment			2
Rollers			2
Tractors/Loaders/Backhoes			1
Paving	12/25/2024	1/17/2025	
Air Compressors			1
This equipment list is based upon equipment inventory and estimates within CalEEMod 2020.4.0.			

3.3 Project Operations

Based on the projected traffic volumes by the Project Traffic Study, the proposed project would generate as much as 87 average daily traffic (ADT) (LL&G, 2023). CalEEMod was updated to reflect these trips once fully operational.

Operational air quality emission sources would also include area sources such as landscaping, consumer products and architectural coatings during maintenance, energy sources from natural gas and electrical usage, mobile sources from vehicular traffic to include trucks and passenger vehicles, solid waste from trash generation, and water uses, which are calculated within CalEEMod.

3.4 Fire Truck Operational Emissions

The fire station expects as many as 12 calls per day once fully operational. Each call could include an ambulance, a fire truck, a ladder truck or perhaps all three. For the purposes of this analysis, it is assumed that all 12 calls would include as many as three heavy diesel trucks each.

These trucks would be a mixture of heavy-heavy duty trucks (HHD) or trucks over 26,000 lbs and medium-heavy duty trucks (MHD) or trucks between 14,000 and 26,000 lbs. For the purposes of this analysis, it's assumed that all truck trips are HHDT trucks. In addition, it's assumed that each truck would idle onsite daily. Based on discussions with the CVFD, idling wouldn't be expected for more than two to three minutes daily to ensure trucks are operational for any emergency services required. As noted in Section 3.1, DPM is a known carcinogen and based on projected operations, it's suggested that project generated health risks be calculated at expected sensitive residential receptors.

CalEEMod includes mobile emissions reported within the EMFAC 2017 emission model in terms of both driving and idling emissions for each respective vehicle class from each scenario year and adjusted in units of grams per VMT. Similarly, idling emissions were divided by the number of trips to derive emission factors in units of grams per trip. Idling emissions are multiplied by the number of trips times the respective emission factor (CAPCOA, 2021).

Based on CalEEMod, the following Emission Factors are used within this analysis. Table 3.2 below shows that the truck movement PM_{10} exhaust would be generated at a rate of 0.0255 grams/VMT and Idling events would generate 0.0029 grams per trip.

Table 3.2: Operational Truck Emission Rates

EMFAC2017 Acronyms for Each Vehicle Emission	EMFAC2017 Description of Each Vehicle	EMFAC2017 Emission Rate Unit	CalEEMod Emission Factor Unit	HHD Emissions
PM10_RUNEX	Running Exhaust	grams/VMT	grams/VMT	0.025521
PM10_IDLEX	Idle Exhaust	grams/vehicle/day	grams/trip	0.002913

Cancer risks would be calculated in a similar fashion to those explained within Section 3.1 of this report. Air dispersion modeling utilizing AERMOD is the preferred dispersion modeling for projects with a high number of sources and will be used within the analysis. A screenshot graphical representation of the modeling locations is shown on an aerial below in Figure 3-A on the following page. The idling trucks are identified as light blue dots of which seven were assumed. This means that up to seven trucks were assumed onsite and outside with an idling event conducted each morning for 2-3 minutes each to ensure equipment is operating properly. It should be noted that discussions with CVFD, these idling events would typically be within the indoor parking garages but were assumed to occur outside as a worst-case operations event as it relates to the Projects potential to expose nearby receptors to Project generated DPM. In addition, all calls were assumed to have three trucks leave the site for each call.

All truck movement is represented as volume sources (identified as red squares) and a route was selected so that each vehicle would leave the site and then return passing the closest sensitive receptors such as the nearby school and residential units. Also, six sensitive receptors were added to determine operational emissions at discrete sensitive receptor locations (nearest homes and the nearby school) and are represented by red circles with the modeled receptor number used in AERMOD.

As noted above, chronic non-cancer risks can be expected when RELs exceed 5 µg/m^3. Chronic non-cancer risks can be calculated from AERMOD outputs. It should be noted that OEHHA does not classify DPM as a source for acute health risks.

3.5 Odor Impacts (Onsite)

Potential onsite odor generators would include short term construction odors from activities such as paving and possibly painting. The construction odors would be considered short term and would not be considered an impact. Given this, the Project will not create offensive odors and would therefore not be considered an impact under CEQA. The site would not generate operational odors and therefore would have a less than significant long term odor impact.

Figure 3-A: AERMOD Modeling Sources and Receptors - Onsite Operations

4.0 FINDINGS

4.1 Construction Findings

Based on the input parameters and construction design features identified in Section 3.2 of this report, no significant construction impacts are expected. Table 4.1 shows the calculated emissions from construction.

Table 4.1: Expected Construction Emissions Summary

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2024 (lb/day)	11.51	5.99	34.97	0.06	5.93	0.05	5.98	2.85	0.05	2.90
2025 (lb/day)	11.49	3.84	34.82	0.06	0.70	0.02	0.72	0.19	0.02	0.20
Significance Threshold (lb/day)	**75**	**100**	**550**	**150**	**-**	**-**	**150**	**-**	**-**	**55**
LST Screening Threshold (lb/day)	-	**170**	**1232**	-	-	-	**6**	-	-	**5**
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**-**	**-**	**No**	**-**	**-**	**No**
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 2 above using Tier 4 equipment and wetting the site three times daily.										

4.2 Operational Findings

Once construction is completed the proposed project would generate air quality emissions from daily operations which are calculated within CalEEMod. Based on the estimated emissions output parameters identified in Section 3.3 of this report, a less than significant impact operational impacts would be expected. Operational emissions are shown in Table 4.2. It should be noted that these emissions include operations of fire trucks as well per the Project traffic analysis.

Table 4.2: Expected Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source Emission Estimates (Lb/Day)	0.39	0.00	0.01	0.00	0.00	0.00
Energy Source Emissions (Lb/Day)	0.00	0.02	0.01	0.00	0.00	0.00
Operational Vehicle Emissions (Lb/Day)	0.27	0.33	2.54	0.01	0.59	0.16
Total (Lb/Day)	**0.67**	**0.35**	**2.56**	**0.01**	**0.59**	**0.16**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
LST Screening Threshold (lb/day)	-	**170**	**1,232**	-	**2**	**2**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Scenario						
Area Source Emission Estimates (Lb/Day)	0.39	0.00	0.01	0.00	0.00	0.00
Energy Source Emissions (Lb/Day)	0.00	0.02	0.01	0.00	0.00	0.00
Operational Vehicle Emissions (Lb/Day)	0.24	0.35	2.28	0.01	0.59	0.16
Total (Lb/Day)	**0.63**	**0.37**	**2.30**	**0.01**	**0.59**	**0.16**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
	-	**170**	**1,232**	-	**2**	**2**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Daily pollutant generation assumes trip distances within CALLEEMOD						

4.3 Operational Health Risks

The proposed Fire Station is forecasted to have as many as 12 calls per day and for the purposes of this analysis, it's assumed that each call would have as many as three diesel trucks leaving the site. In addition, it's assumed that as many as 7 trucks daily onsite will idle for a few minutes each morning.

Utilizing the AERMOD dispersion model, a visual representation of the dispersed emissions output was created and shown in Figure 4-A. Specific modeled emissions for each discreet receptor is shown in the AERMOD output files shown in ***Attachment B*** at the end of the report. Based on actual receptor emission estimates shown in the AERMOD output files, we find that the annual concentration from the truck operations will produce 0.0009 $\mu g/m^3$ PM_{10} exhaust emissions at the highest receptor location (Receptor 3). Based on review of the AERMOD output files, the sensitive residential receptors would be exposed to between 0.0003 and 0.0009 $\mu g/m^3$ of diesel particulates from the project during operations.

Figure 4-A: PM10–Truck Operations Idling/Movement AERMOD Plot

Based on the analysis, the inhalation cancer risk for a 70-year duration is between 0.241 and 0.755 per one million exposed at receptors shown. Calculations for these risks are shown in ***Attachment C*** to this report. Based on this, the cancer risk from operations would be less than significant. In addition, it should be noted that the non-cancer health risks could be exposed if DPM -case DPM emissions exceed 5 µg/m^3. Since the Project would only produce 0.0009 µg/m^3 at the nearest sensitive receptors, chronic non-cancer risks wouldn't be expected. Therefore, a less than significant non-cancer risk is expected.

4.4 Cumulative Impact Findings

Cumulative impacts would exist when either there are direct air quality impacts or when multiple construction projects occur within the same area simultaneously. To illustrate this, if a project was to produce air quality emissions simultaneous to a nearby construction project the addition of both project emissions to the environment could exceed significance thresholds. For this project, the construction emissions were found to be less than significant as shown in Table 4.1 above. If a nearby project was to be under construction at the same time, that project would need to simultaneously generate emissions such that the combined emissions offsite would increase and then ultimately exceed thresholds. Based on review of the Project site and a list of cumulative projects in the area (provided as ***Attachment D*** to this report), a scenario where significant cumulative air quality impacts could be generated is not expected. Therefore, a less than significant cumulative impact would be expected.

The project is located on two separate parcels having assessor's Parcel Numbers (APN) 1017-241-28 (zoned Public Open Space) and 1030-341-68 (zoned Institutional/Public Facility). The Project proposes to change the portion of the designated Public Open Space to Institutional/Public Facility which is required for the City's fire station. Lot 1030-341-68 is roughly 1.5 acres in size and since this area is zoned Institutional/Public Facility it would have an allowable Floor Area Ratio of 0.5 to 1 or ½ square foot per square foot. Given this, the project site could construct a 32,670 SF building on this single Lot and would remain consistent with the General Plan. Land uses allowed on this 1.5 acre site could consist of churches or even a hospital within this parcel alone. These uses generate considerably higher traffic intensity and in the case of a hospital consume more energy per square foot than a fire station which was estimated at 87 ADT within the Project traffic study.

The Project as designed would be constructed on a portion of Public Open Space and if the proposed Project was developed on this open space Lot alone, the land use intensity would be higher than what was assumed in the General Plan which could introduce significant cumulative operational air quality impacts in the City. However, since the Project would limit construction on both lots to 18,745 SF and since the allowable FAR for Lot 1030-341-689 alone is 32,670 SF, the project as designed would have a lower intensity after encumbering

both lots to the 18,745 SF limit as the Project proposes. Given this, since the Project would have a less than significant direct and cumulative air quality impact, the Project would not conflict with SCQAMD's ability to implement the 2022 AQMP.

4.5 Odor Impact Findings

Odor impacts from construction operations would be considered short term events and would not be considered an impact. Long term operations will not create offensive odors and would not create any operational odor impacts.

4.6 Conclusion of Findings

During construction of the proposed Project, fugitive dust emissions would be expected but would not exceed thresholds established by the SCAQMD. Given this, a less than significant construction impact would be expected. As a design feature, the project would require that all construction equipment is Tier 4 or equivalent which is the highest rated equipment as it relates to diesel particulate and NOx emission reductions. Given this, health risks related to DPM from construction equipment would not be expected.

Air quality emissions generated once the Project is operational in 2025 would be expected, however were shown to be less than significant. In addition, health risks impacts from diesel particulate matter generated from fire trucks and equivalent sources were also shown to be less than significant.

Finally, since the proposed project would have a fairly low FAR and generate only 87 ADT the Project intensity was shown to be less than what would be allowed on APN 1030-341-68. This finding would also be true even though the Project also would require some of APN 1017-241-28, which is zoned Public Open Space. Since the intensity of the Project is less than allowed under the City's General Plan, and since Air Quality and Health Risks are less than significant, the project as a whole would be consistent with both the RAQS and SIP.

As identified in this report, the project will implement Project Design Features which have an effect on reducing air quality emissions. These features were assumed within this analysis and modeled results assume the features are implemented. Based on this, the following design features will be a condition for approval by the City of Chino Hills.

1. In accordance with SCAQMDs Rule 403. All soil will be wet at least three times daily during earthwork activities.
2. The Project shall utilize Tier 4 diesel construction equipment during construction of the Project.

5.0 REFERENCES

California. (2018). *Final Adopted Text for Revisions to the CEQA Guidelines.* Retrieved from http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

California Air Resources Board. (2021). *www.arb.gov*. Retrieved from iADAM: Air Quality Data Statistics: https://www.arb.ca.gov/adam/topfour/topfourdisplay.php

California Air Resources Board. (5/4/2016). *www.arb.ca.gov.* Retrieved from Ambient Air Quality Standards: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

CAPCOA. (2021). *Appendix A - Calculation Details for CalEEMod.* Retrieved from http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6

CARB. (2023). *https://ww2.arb.ca.gov*. Retrieved from Visibility reducing particles and health: https://ww2.arb.ca.gov/resources/visibility-reducing-particles-and-health

CARB. (2023). *https://ww2.arb.ca.gov*. Retrieved from Sulfate and Health: https://ww2.arb.ca.gov/resources/sulfate-and-health

CARB. (2023). *https://ww2.arb.ca.gov*. Retrieved from Hydrogen Sulfide & Health: https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health

CARB. (2023). *https://ww2.arb.ca.gov*. Retrieved from https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health

City Data. (2023). *http://www.city-data.com*. Retrieved from https://www.city-data.com/city/Chino-Hills-California.html

DieselNet. (2013). *Emission Standards - Nonroad Diesel Engines*. Retrieved from http://www.dieselnet.com/standards/us/nonroad.php

EPA. (2022, AUG 9). *https://www.epa.gov*. Retrieved 2023, from Criteria Air Pollutants: https://www.epa.gov/criteria-air-pollutants

EPA. (2022). *https://www.epa.gov/*. Retrieved from What is carbon monoxide?: https://www.epa.gov/indoor-air-quality-iaq/what-carbon-monoxide#:~:text=Carbon%20monoxide%20(CO)%20is%20a,soluble%20in%20alcohol%20and%20benzene.

EPA. (2022). *https://www.epa.gov/*. Retrieved from Learn about Lead: https://www.epa.gov/lead/learn-about-lead#lead

EPA. (2022). *https://www.epa.gov/*. Retrieved from What is NO2 and how does it get in the air?

EPA. (2022). *https://www.epa.gov/*. Retrieved from What is PM, and how does it get into the air?: https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#PM

LL&G. (2023). *Focused Traffic Impact Assessment for the Proposed Chino Valley Fire Station 68 Project.*

Office of Environmental Health Hazard Assessment. (August 2003). *Air Toxics Hot Spots Program Risk Assessment Guidelines - The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.* Office of Environmental Health

Hazard Assessment. Oakland: Office of Environmental Health Hazard Assessment. Retrieved 2015, from http://oehha.ca.gov/air/hot_spots/pdf/HRAfinalnoapp.pdf

PBK Architects. (2023). *Proposed Site Plan.*

SCAQMD. (2009, Oct 21). *Localized Significance Thresholds Lookup Tables.* Retrieved 2015, from http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2

SCAQMD. (2016). Air Quality Management Plan (AQMP). CA. Retrieved June 6, 2016, from http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp

South Coast Air Quality Management District. (2008, July). *Finalized Localized Significance Threshold Methodology.* Retrieved from http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf

South Coast Air Quality Management District. (2014). *Localized Significance Thresholds*. Retrieved 2014, from http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

US EPA. (2004, June 29). *Federal Register / Vol. 69, NO. 124.* Retrieved 2015, from http://www.gpo.gov/fdsys/pkg/FR-2004-06-29/pdf/04-11293.pdf

ATTACHMENT A

CALLEEMOD 2020.4.0

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Chino Fire Department

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	18.75	1000sqft	2.45	18,750.00	0
Parking Lot	56.12	1000sqft	1.29	56,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 3.74 acre site… updated to add 600 sf per email

Construction Phase - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Trips and VMT - Updated to reflect Project Export

Grading -

Vehicle Trips - Updated to reflect TS

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 equipment PDF

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	8.00	25.00
tblGrading	MaterialExported	0.00	7,948.00
tblGrading	MaterialExported	0.00	6,359.00
tblLandUse	LotAcreage	0.43	2.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	ST_TR	0.00	4.79

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	SU_TR	0.00	4.79
tblVehicleTrips	WD_TR	33.98	4.79

2.0 Emissions Summary

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
2024	13.4619	23.4776	32.3382	0.0564	13.9485	1.0790	14.7697	6.9609	1.0120	7.7181	0.0000	5,429.7566	5,429.7566	1.2057	0.3824	5,554.5339
2025	13.2718	21.6741	32.0681	0.0562	0.7028	0.9374	1.6402	0.1882	0.8793	1.0674	0.0000	5,412.0637	5,412.0637	1.2003	0.0445	5,455.3259
Maximum	**13.4619**	**23.4776**	**32.3382**	**0.0564**	**13.9485**	**1.0790**	**14.7697**	**6.9609**	**1.0120**	**7.7181**	**0.0000**	**5,429.7566**	**5,429.7566**	**1.2057**	**0.3824**	**5,554.5339**

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					
2024	11.5051	5.9927	34.9653	0.0564	5.9327	0.0535	5.9843	2.8493	0.0514	2.8989	0.0000	5,429.7566	5,429.7566	1.2057	0.3824	5,554.5339
2025	11.4908	3.8412	34.8215	0.0562	0.7028	0.0170	0.7199	0.1882	0.0167	0.2048	0.0000	5,412.0637	5,412.0637	1.2003	0.0445	5,455.3259
Maximum	**11.5051**	**5.9927**	**34.9653**	**0.0564**	**5.9327**	**0.0535**	**5.9843**	**2.8493**	**0.0514**	**2.8989**	**0.0000**	**5,429.7566**	**5,429.7566**	**1.2057**	**0.3824**	**5,554.5339**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	13.98	78.22	-8.35	0.00	54.71	96.50	59.15	57.51	96.40	64.67	0.00	0.00	0.00	0.00	0.00	0.00

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Mobile	0.2719	0.3312	2.5353	5.6600e-003	0.5856	4.2700e-003	0.5899	0.1562	4.0000e-003	0.1602		590.8353	590.8353	0.0303	0.0267	599.5469
Total	**0.6656**	**0.3486**	**2.5574**	**5.7600e-003**	**0.5856**	**5.6100e-003**	**0.5912**	**0.1562**	**5.3400e-003**	**0.1615**		**611.5810**	**611.5810**	**0.0308**	**0.0271**	**620.4168**

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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Mobile	0.2719	0.3312	2.5353	5.6600e-003	0.5856	4.2700e-003	0.5899	0.1562	4.0000e-003	0.1602		590.8353	590.8353	0.0303	0.0267	599.5469
Total	**0.6656**	**0.3486**	**2.5574**	**5.7600e-003**	**0.5856**	**5.6100e-003**	**0.5912**	**0.1562**	**5.3400e-003**	**0.1615**		**611.5810**	**611.5810**	**0.0308**	**0.0271**	**620.4168**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

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	1/1/2024	1/26/2024	5	20	
2	Grading	Grading	1/27/2024	3/1/2024	5	25	
3	Building Construction	Building Construction	3/2/2024	1/17/2025	5	230	
4	Paving	Paving	12/25/2024	1/17/2025	5	18	
5	Architectural Coating	Architectural Coating	12/25/2024	1/17/2025	5	18	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 25

Acres of Paving: 1.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 28,125; Non-Residential Outdoor: 9,375; Striped Parking Area: 3,367 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	4	10.00	0.00	795.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	994.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	30.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

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					13.1406	0.0000	13.1406	6.7404	0.0000	6.7404			0.0000			0.0000
Off-Road	1.6780	17.1518	10.7334	0.0233		0.7753	0.7753		0.7132	0.7132		2,257.4955	2,257.4955	0.7301		2,275.7485
Total	**1.6780**	**17.1518**	**10.7334**	**0.0233**	**13.1406**	**0.7753**	**13.9159**	**6.7404**	**0.7132**	**7.4537**		**2,257.4955**	**2,257.4955**	**0.7301**		**2,275.7485**

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	0.0949	4.3865	1.3350	0.0219	0.6961	0.0454	0.7415	0.1909	0.0434	0.2343		2,391.1191	2,391.1191	0.1008	0.3790	2,506.5784
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	0.0363	0.0210	0.3512	9.7000e-004	0.1118	5.3000e-004	0.1123	0.0296	4.9000e-004	0.0301		99.9750	99.9750	2.2100e-003	2.2300e-003	100.6938
Total	**0.1312**	**4.4074**	**1.6862**	**0.0229**	**0.8079**	**0.0459**	**0.8538**	**0.2205**	**0.0439**	**0.2644**		**2,491.0940**	**2,491.0940**	**0.1030**	**0.3812**	**2,607.2722**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

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					5.1249	0.0000	5.1249	2.6288	0.0000	2.6288			0.0000			0.0000
Off-Road	0.2851	1.2353	12.3513	0.0233		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	2,257.4955	2,257.4955	0.7301		2,275.7485
Total	**0.2851**	**1.2353**	**12.3513**	**0.0233**	**5.1249**	**5.7000e-003**	**5.1306**	**2.6288**	**5.7000e-003**	**2.6345**	**0.0000**	**2,257.4955**	**2,257.4955**	**0.7301**		**2,275.7485**

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	0.0949	4.3865	1.3350	0.0219	0.6961	0.0454	0.7415	0.1909	0.0434	0.2343		2,391.1191	2,391.1191	0.1008	0.3790	2,506.5784
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	0.0363	0.0210	0.3512	9.7000e-004	0.1118	5.3000e-004	0.1123	0.0296	4.9000e-004	0.0301		99.9750	99.9750	2.2100e-003	2.2300e-003	100.6938
Total	**0.1312**	**4.4074**	**1.6862**	**0.0229**	**0.8079**	**0.0459**	**0.8538**	**0.2205**	**0.0439**	**0.2644**		**2,491.0940**	**2,491.0940**	**0.1030**	**0.3812**	**2,607.2722**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					7.1185	0.0000	7.1185	3.4302	0.0000	3.4302			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665		2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**1.6617**	**17.0310**	**14.7594**	**0.0297**	**7.1185**	**0.7244**	**7.8430**	**3.4302**	**0.6665**	**4.0967**		**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

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	0.0949	4.3876	1.3354	0.0220	0.6963	0.0454	0.7417	0.1909	0.0434	0.2343		2,391.7206	2,391.7206	0.1008	0.3791	2,507.2090
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	0.0545	0.0314	0.5268	1.4500e-003	0.1677	8.0000e-004	0.1685	0.0445	7.3000e-004	0.0452		149.9625	149.9625	3.3100e-003	3.3400e-003	151.0408
Total	**0.1494**	**4.4190**	**1.8621**	**0.0234**	**0.8639**	**0.0462**	**0.9101**	**0.2354**	**0.0442**	**0.2795**		**2,541.6831**	**2,541.6831**	**0.1042**	**0.3824**	**2,658.2497**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					2.7762	0.0000	2.7762	1.3378	0.0000	1.3378			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**2.7762**	**7.2600e-003**	**2.7835**	**1.3378**	**7.2600e-003**	**1.3450**	**0.0000**	**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

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	0.0949	4.3876	1.3354	0.0220	0.6963	0.0454	0.7417	0.1909	0.0434	0.2343		2,391.7206	2,391.7206	0.1008	0.3791	2,507.2090
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	0.0545	0.0314	0.5268	1.4500e-003	0.1677	8.0000e-004	0.1685	0.0445	7.3000e-004	0.0452		149.9625	149.9625	3.3100e-003	3.3400e-003	151.0408
Total	**0.1494**	**4.4190**	**1.8621**	**0.0234**	**0.8639**	**0.0462**	**0.9101**	**0.2354**	**0.0442**	**0.2795**		**2,541.6831**	**2,541.6831**	**0.1042**	**0.3824**	**2,658.2497**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0137	0.4247	0.1737	2.1200e-003	0.0769	3.1100e-003	0.0800	0.0221	2.9800e-003	0.0251		227.1293	227.1293	5.8400e-003	0.0335	237.2690
Worker	0.1090	0.0628	1.0535	2.9100e-003	0.3353	1.5900e-003	0.3369	0.0889	1.4700e-003	0.0904		299.9249	299.9249	6.6200e-003	6.6800e-003	302.0815
Total	**0.1227**	**0.4875**	**1.2272**	**5.0300e-003**	**0.4122**	**4.7000e-003**	**0.4169**	**0.1111**	**4.4500e-003**	**0.1155**		**527.0542**	**527.0542**	**0.0125**	**0.0402**	**539.3505**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0137	0.4247	0.1737	2.1200e-003	0.0769	3.1100e-003	0.0800	0.0221	2.9800e-003	0.0251		227.1293	227.1293	5.8400e-003	0.0335	237.2690
Worker	0.1090	0.0628	1.0535	2.9100e-003	0.3353	1.5900e-003	0.3369	0.0889	1.4700e-003	0.0904		299.9249	299.9249	6.6200e-003	6.6800e-003	302.0815
Total	**0.1227**	**0.4875**	**1.2272**	**5.0300e-003**	**0.4122**	**4.7000e-003**	**0.4169**	**0.1111**	**4.4500e-003**	**0.1155**		**527.0542**	**527.0542**	**0.0125**	**0.0402**	**539.3505**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0135	0.4221	0.1710	2.0800e-003	0.0769	3.1100e-003	0.0800	0.0221	2.9800e-003	0.0251		222.7135	222.7135	5.6700e-003	0.0329	232.6493
Worker	0.1014	0.0561	0.9780	2.8100e-003	0.3353	1.5100e-003	0.3368	0.0889	1.3900e-003	0.0903		292.5189	292.5189	5.9500e-003	6.2200e-003	294.5210
Total	**0.1149**	**0.4782**	**1.1489**	**4.8900e-003**	**0.4122**	**4.6200e-003**	**0.4168**	**0.1111**	**4.3700e-003**	**0.1154**		**515.2324**	**515.2324**	**0.0116**	**0.0391**	**527.1703**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0135	0.4221	0.1710	2.0800e-003	0.0769	3.1100e-003	0.0800	0.0221	2.9800e-003	0.0251		222.7135	222.7135	5.6700e-003	0.0329	232.6493
Worker	0.1014	0.0561	0.9780	2.8100e-003	0.3353	1.5100e-003	0.3368	0.0889	1.3900e-003	0.0903		292.5189	292.5189	5.9500e-003	6.2200e-003	294.5210
Total	**0.1149**	**0.4782**	**1.1489**	**4.8900e-003**	**0.4122**	**4.6200e-003**	**0.4168**	**0.1111**	**4.3700e-003**	**0.1154**		**515.2324**	**515.2324**	**0.0116**	**0.0391**	**527.1703**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

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	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0691**	**8.2730**	**12.2210**	**0.0189**		**0.3987**	**0.3987**		**0.3685**	**0.3685**		**1,805.6205**	**1,805.6205**	**0.5673**		**1,819.8039**

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	0.0727	0.0419	0.7024	1.9400e-003	0.2236	1.0600e-003	0.2246	0.0593	9.8000e-004	0.0603		199.9500	199.9500	4.4200e-003	4.4500e-003	201.3877
Total	**0.0727**	**0.0419**	**0.7024**	**1.9400e-003**	**0.2236**	**1.0600e-003**	**0.2246**	**0.0593**	**9.8000e-004**	**0.0603**		**199.9500**	**199.9500**	**4.4200e-003**	**4.4500e-003**	**201.3877**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

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	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4072**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,805.6205**	**1,805.6205**	**0.5673**		**1,819.8039**

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	0.0727	0.0419	0.7024	1.9400e-003	0.2236	1.0600e-003	0.2246	0.0593	9.8000e-004	0.0603		199.9500	199.9500	4.4200e-003	4.4500e-003	201.3877
Total	**0.0727**	**0.0419**	**0.7024**	**1.9400e-003**	**0.2236**	**1.0600e-003**	**0.2246**	**0.0593**	**9.8000e-004**	**0.0603**		**199.9500**	**199.9500**	**4.4200e-003**	**4.4500e-003**	**201.3877**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0075**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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	0.0676	0.0374	0.6520	1.8700e-003	0.2236	1.0100e-003	0.2246	0.0593	9.3000e-004	0.0602		195.0126	195.0126	3.9700e-003	4.1500e-003	196.3473
Total	**0.0676**	**0.0374**	**0.6520**	**1.8700e-003**	**0.2236**	**1.0100e-003**	**0.2246**	**0.0593**	**9.3000e-004**	**0.0602**		**195.0126**	**195.0126**	**3.9700e-003**	**4.1500e-003**	**196.3473**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4072**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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	0.0676	0.0374	0.6520	1.8700e-003	0.2236	1.0100e-003	0.2246	0.0593	9.3000e-004	0.0602		195.0126	195.0126	3.9700e-003	4.1500e-003	196.3473
Total	**0.0676**	**0.0374**	**0.6520**	**1.8700e-003**	**0.2236**	**1.0100e-003**	**0.2246**	**0.0593**	**9.3000e-004**	**0.0602**		**195.0126**	**195.0126**	**3.9700e-003**	**4.1500e-003**	**196.3473**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**10.7040**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0218	0.0126	0.2107	5.8000e-004	0.0671	3.2000e-004	0.0674	0.0178	2.9000e-004	0.0181		59.9850	59.9850	1.3200e-003	1.3400e-003	60.4163
Total	**0.0218**	**0.0126**	**0.2107**	**5.8000e-004**	**0.0671**	**3.2000e-004**	**0.0674**	**0.0178**	**2.9000e-004**	**0.0181**		**59.9850**	**59.9850**	**1.3200e-003**	**1.3400e-003**	**60.4163**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**10.5530**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0218	0.0126	0.2107	5.8000e-004	0.0671	3.2000e-004	0.0674	0.0178	2.9000e-004	0.0181		59.9850	59.9850	1.3200e-003	1.3400e-003	60.4163
Total	**0.0218**	**0.0126**	**0.2107**	**5.8000e-004**	**0.0671**	**3.2000e-004**	**0.0674**	**0.0178**	**2.9000e-004**	**0.0181**		**59.9850**	**59.9850**	**1.3200e-003**	**1.3400e-003**	**60.4163**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**10.6941**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0203	0.0112	0.1956	5.6000e-004	0.0671	3.0000e-004	0.0674	0.0178	2.8000e-004	0.0181		58.5038	58.5038	1.1900e-003	1.2400e-003	58.9042
Total	**0.0203**	**0.0112**	**0.1956**	**5.6000e-004**	**0.0671**	**3.0000e-004**	**0.0674**	**0.0178**	**2.8000e-004**	**0.0181**		**58.5038**	**58.5038**	**1.1900e-003**	**1.2400e-003**	**58.9042**

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**10.5530**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0203	0.0112	0.1956	5.6000e-004	0.0671	3.0000e-004	0.0674	0.0178	2.8000e-004	0.0181		58.5038	58.5038	1.1900e-003	1.2400e-003	58.9042
Total	**0.0203**	**0.0112**	**0.1956**	**5.6000e-004**	**0.0671**	**3.0000e-004**	**0.0674**	**0.0178**	**2.8000e-004**	**0.0181**		**58.5038**	**58.5038**	**1.1900e-003**	**1.2400e-003**	**58.9042**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.2719	0.3312	2.5353	5.6600e-003	0.5856	4.2700e-003	0.5899	0.1562	4.0000e-003	0.1602		590.8353	590.8353	0.0303	0.0267	599.5469
Unmitigated	0.2719	0.3312	2.5353	5.6600e-003	0.5856	4.2700e-003	0.5899	0.1562	4.0000e-003	0.1602		590.8353	590.8353	0.0303	0.0267	599.5469

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	89.81	89.81	89.81	277,353	277,353
Parking Lot	0.00	0.00	0.00		
Total	89.81	89.81	89.81	277,353	277,353

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
Government (Civic Center)	16.60	8.40	6.90	75.00	20.00	5.00	50	34	16
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
NaturalGas Unmitigated	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Government (Civic Center)	176.199	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Parking Lot	0	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
Total		**1.9000e-003**	**0.0173**	**0.0145**	**1.0000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**		**20.7293**	**20.7293**	**4.0000e-004**	**3.8000e-004**	**20.8524**

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					
Government (Civic Center)	0.176199	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Parking Lot	0	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
Total		**1.9000e-003**	**0.0173**	**0.0145**	**1.0000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**		**20.7293**	**20.7293**	**4.0000e-004**	**3.8000e-004**	**20.8524**

6.0 Area Detail

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Unmitigated	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3911					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Total	**0.3918**	**7.0000e-005**	**7.6200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0164**	**0.0164**	**4.0000e-005**		**0.0175**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3911					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Total	**0.3918**	**7.0000e-005**	**7.6200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0164**	**0.0164**	**4.0000e-005**		**0.0175**

7.0 Water Detail

7.1 Mitigation Measures Water

Chino Fire Department - San Bernardino-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Chino Fire Department

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	18.75	1000sqft	2.45	18,750.00	0
Parking Lot	56.12	1000sqft	1.29	56,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 3.74 acre site… updated to add 600 sf per email

Construction Phase - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Off-road Equipment - cs

Trips and VMT - Updated to reflect Project Export

Grading -

Vehicle Trips - Updated to reflect TS

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 equipment PDF

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	8.00	25.00
tblGrading	MaterialExported	0.00	7,948.00
tblGrading	MaterialExported	0.00	6,359.00
tblLandUse	LotAcreage	0.43	2.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	ST_TR	0.00	4.79

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	SU_TR	0.00	4.79
tblVehicleTrips	WD_TR	33.98	4.79

2.0 Emissions Summary

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
2024	13.4539	23.5074	31.9974	0.0559	13.9485	1.0790	14.7697	6.9609	1.0120	7.7181	0.0000	5,404.3021	5,404.3021	1.2057	0.3831	5,544.2932
2025	13.2647	21.7031	31.7540	0.0557	0.7028	0.9374	1.6402	0.1882	0.8793	1.0674	0.0000	5,361.4989	5,361.4989	1.2004	0.0450	5,404.9008
Maximum	**13.4539**	**23.5074**	**31.9974**	**0.0559**	**13.9485**	**1.0790**	**14.7697**	**6.9609**	**1.0120**	**7.7181**	**0.0000**	**5,404.3021**	**5,404.3021**	**1.2057**	**0.3831**	**5,544.2932**

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					
2024	11.4972	6.2318	34.6245	0.0559	5.9327	0.0535	5.9844	2.8493	0.0515	2.8990	0.0000	5,404.3021	5,404.3021	1.2057	0.3831	5,544.2932
2025	11.4837	3.8703	34.5074	0.0557	0.7028	0.0171	0.7199	0.1882	0.0167	0.2048	0.0000	5,361.4989	5,361.4989	1.2004	0.0450	5,404.9008
Maximum	**11.4972**	**6.2318**	**34.6245**	**0.0559**	**5.9327**	**0.0535**	**5.9844**	**2.8493**	**0.0515**	**2.8990**	**0.0000**	**5,404.3021**	**5,404.3021**	**1.2057**	**0.3831**	**5,544.2932**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	13.99	77.66	-8.44	0.00	54.71	96.50	59.15	57.51	96.40	64.67	0.00	0.00	0.00	0.00	0.00	0.00

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Mobile	0.2355	0.3520	2.2786	5.2500e-003	0.5856	4.2800e-003	0.5899	0.1562	4.0000e-003	0.1602		548.4145	548.4145	0.0312	0.0274	557.3434
Total	**0.6292**	**0.3693**	**2.3007**	**5.3500e-003**	**0.5856**	**5.6200e-003**	**0.5912**	**0.1562**	**5.3400e-003**	**0.1615**		**569.1601**	**569.1601**	**0.0316**	**0.0277**	**578.2133**

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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Mobile	0.2355	0.3520	2.2786	5.2500e-003	0.5856	4.2800e-003	0.5899	0.1562	4.0000e-003	0.1602		548.4145	548.4145	0.0312	0.0274	557.3434
Total	**0.6292**	**0.3693**	**2.3007**	**5.3500e-003**	**0.5856**	**5.6200e-003**	**0.5912**	**0.1562**	**5.3400e-003**	**0.1615**		**569.1601**	**569.1601**	**0.0316**	**0.0277**	**578.2133**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

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	1/1/2024	1/26/2024	5	20	
2	Grading	Grading	1/27/2024	3/1/2024	5	25	
3	Building Construction	Building Construction	3/2/2024	1/17/2025	5	230	
4	Paving	Paving	12/25/2024	1/17/2025	5	18	
5	Architectural Coating	Architectural Coating	12/25/2024	1/17/2025	5	18	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 25

Acres of Paving: 1.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 28,125; Non-Residential Outdoor: 9,375; Striped Parking Area: 3,367 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	4	10.00	0.00	795.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	994.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	30.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

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					13.1406	0.0000	13.1406	6.7404	0.0000	6.7404			0.0000			0.0000
Off-Road	1.6780	17.1518	10.7334	0.0233		0.7753	0.7753		0.7132	0.7132		2,257.4955	2,257.4955	0.7301		2,275.7485
Total	**1.6780**	**17.1518**	**10.7334**	**0.0233**	**13.1406**	**0.7753**	**13.9159**	**6.7404**	**0.7132**	**7.4537**		**2,257.4955**	**2,257.4955**	**0.7301**		**2,275.7485**

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	0.0877	4.6239	1.3590	0.0220	0.6961	0.0455	0.7415	0.1909	0.0435	0.2344		2,394.7538	2,394.7538	0.1005	0.3796	2,510.3755
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	0.0351	0.0220	0.2894	8.8000e-004	0.1118	5.3000e-004	0.1123	0.0296	4.9000e-004	0.0301		90.5945	90.5945	2.2100e-003	2.3000e-003	91.3347
Total	**0.1228**	**4.6459**	**1.6483**	**0.0229**	**0.8079**	**0.0460**	**0.8539**	**0.2205**	**0.0440**	**0.2645**		**2,485.3483**	**2,485.3483**	**0.1027**	**0.3819**	**2,601.7101**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

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					5.1249	0.0000	5.1249	2.6288	0.0000	2.6288			0.0000			0.0000
Off-Road	0.2851	1.2353	12.3513	0.0233		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	2,257.4955	2,257.4955	0.7301		2,275.7485
Total	**0.2851**	**1.2353**	**12.3513**	**0.0233**	**5.1249**	**5.7000e-003**	**5.1306**	**2.6288**	**5.7000e-003**	**2.6345**	**0.0000**	**2,257.4955**	**2,257.4955**	**0.7301**		**2,275.7485**

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	0.0877	4.6239	1.3590	0.0220	0.6961	0.0455	0.7415	0.1909	0.0435	0.2344		2,394.7538	2,394.7538	0.1005	0.3796	2,510.3755
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	0.0351	0.0220	0.2894	8.8000e-004	0.1118	5.3000e-004	0.1123	0.0296	4.9000e-004	0.0301		90.5945	90.5945	2.2100e-003	2.3000e-003	91.3347
Total	**0.1228**	**4.6459**	**1.6483**	**0.0229**	**0.8079**	**0.0460**	**0.8539**	**0.2205**	**0.0440**	**0.2645**		**2,485.3483**	**2,485.3483**	**0.1027**	**0.3819**	**2,601.7101**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					7.1185	0.0000	7.1185	3.4302	0.0000	3.4302			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665		2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**1.6617**	**17.0310**	**14.7594**	**0.0297**	**7.1185**	**0.7244**	**7.8430**	**3.4302**	**0.6665**	**4.0967**		**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

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	0.0877	4.6251	1.3593	0.0220	0.6963	0.0455	0.7417	0.1909	0.0435	0.2344		2,395.3563	2,395.3563	0.1005	0.3797	2,511.0070
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	0.0526	0.0330	0.4340	1.3200e-003	0.1677	8.0000e-004	0.1685	0.0445	7.3000e-004	0.0452		135.8918	135.8918	3.3200e-003	3.4500e-003	137.0020
Total	**0.1404**	**4.6581**	**1.7933**	**0.0233**	**0.8639**	**0.0463**	**0.9102**	**0.2354**	**0.0442**	**0.2796**		**2,531.2480**	**2,531.2480**	**0.1038**	**0.3831**	**2,648.0090**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					2.7762	0.0000	2.7762	1.3378	0.0000	1.3378			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**2.7762**	**7.2600e-003**	**2.7835**	**1.3378**	**7.2600e-003**	**1.3450**	**0.0000**	**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

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	0.0877	4.6251	1.3593	0.0220	0.6963	0.0455	0.7417	0.1909	0.0435	0.2344		2,395.3563	2,395.3563	0.1005	0.3797	2,511.0070
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	0.0526	0.0330	0.4340	1.3200e-003	0.1677	8.0000e-004	0.1685	0.0445	7.3000e-004	0.0452		135.8918	135.8918	3.3200e-003	3.4500e-003	137.0020
Total	**0.1404**	**4.6581**	**1.7933**	**0.0233**	**0.8639**	**0.0463**	**0.9102**	**0.2354**	**0.0442**	**0.2796**		**2,531.2480**	**2,531.2480**	**0.1038**	**0.3831**	**2,648.0090**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0127	0.4485	0.1791	2.1200e-003	0.0769	3.1300e-003	0.0800	0.0221	2.9900e-003	0.0251		227.6844	227.6844	5.7900e-003	0.0336	237.8537
Worker	0.1052	0.0661	0.8681	2.6300e-003	0.3353	1.5900e-003	0.3369	0.0889	1.4700e-003	0.0904		271.7836	271.7836	6.6400e-003	6.8900e-003	274.0040
Total	**0.1180**	**0.5145**	**1.0472**	**4.7500e-003**	**0.4122**	**4.7200e-003**	**0.4169**	**0.1111**	**4.4600e-003**	**0.1155**		**499.4679**	**499.4679**	**0.0124**	**0.0405**	**511.8577**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0127	0.4485	0.1791	2.1200e-003	0.0769	3.1300e-003	0.0800	0.0221	2.9900e-003	0.0251		227.6844	227.6844	5.7900e-003	0.0336	237.8537
Worker	0.1052	0.0661	0.8681	2.6300e-003	0.3353	1.5900e-003	0.3369	0.0889	1.4700e-003	0.0904		271.7836	271.7836	6.6400e-003	6.8900e-003	274.0040
Total	**0.1180**	**0.5145**	**1.0472**	**4.7500e-003**	**0.4122**	**4.7200e-003**	**0.4169**	**0.1111**	**4.4600e-003**	**0.1155**		**499.4679**	**499.4679**	**0.0124**	**0.0405**	**511.8577**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0125	0.4458	0.1763	2.0800e-003	0.0769	3.1200e-003	0.0800	0.0221	2.9900e-003	0.0251		223.2631	223.2631	5.6200e-003	0.0330	233.2278
Worker	0.0982	0.0589	0.8069	2.5400e-003	0.3353	1.5100e-003	0.3368	0.0889	1.3900e-003	0.0903		265.1362	265.1362	5.9900e-003	6.4200e-003	267.1977
Total	**0.1107**	**0.5048**	**0.9832**	**4.6200e-003**	**0.4122**	**4.6300e-003**	**0.4168**	**0.1111**	**4.3800e-003**	**0.1154**		**488.3992**	**488.3992**	**0.0116**	**0.0394**	**500.4255**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0125	0.4458	0.1763	2.0800e-003	0.0769	3.1200e-003	0.0800	0.0221	2.9900e-003	0.0251		223.2631	223.2631	5.6200e-003	0.0330	233.2278
Worker	0.0982	0.0589	0.8069	2.5400e-003	0.3353	1.5100e-003	0.3368	0.0889	1.3900e-003	0.0903		265.1362	265.1362	5.9900e-003	6.4200e-003	267.1977
Total	**0.1107**	**0.5048**	**0.9832**	**4.6200e-003**	**0.4122**	**4.6300e-003**	**0.4168**	**0.1111**	**4.3800e-003**	**0.1154**		**488.3992**	**488.3992**	**0.0116**	**0.0394**	**500.4255**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

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	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0691**	**8.2730**	**12.2210**	**0.0189**		**0.3987**	**0.3987**		**0.3685**	**0.3685**		**1,805.6205**	**1,805.6205**	**0.5673**		**1,819.8039**

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	0.0702	0.0440	0.5787	1.7600e-003	0.2236	1.0600e-003	0.2246	0.0593	9.8000e-004	0.0603		181.1891	181.1891	4.4300e-003	4.6000e-003	182.6693
Total	**0.0702**	**0.0440**	**0.5787**	**1.7600e-003**	**0.2236**	**1.0600e-003**	**0.2246**	**0.0593**	**9.8000e-004**	**0.0603**		**181.1891**	**181.1891**	**4.4300e-003**	**4.6000e-003**	**182.6693**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

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	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4072**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,805.6205**	**1,805.6205**	**0.5673**		**1,819.8039**

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	0.0702	0.0440	0.5787	1.7600e-003	0.2236	1.0600e-003	0.2246	0.0593	9.8000e-004	0.0603		181.1891	181.1891	4.4300e-003	4.6000e-003	182.6693
Total	**0.0702**	**0.0440**	**0.5787**	**1.7600e-003**	**0.2236**	**1.0600e-003**	**0.2246**	**0.0593**	**9.8000e-004**	**0.0603**		**181.1891**	**181.1891**	**4.4300e-003**	**4.6000e-003**	**182.6693**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0075**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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	0.0655	0.0393	0.5379	1.7000e-003	0.2236	1.0100e-003	0.2246	0.0593	9.3000e-004	0.0602		176.7574	176.7574	3.9900e-003	4.2800e-003	178.1318
Total	**0.0655**	**0.0393**	**0.5379**	**1.7000e-003**	**0.2236**	**1.0100e-003**	**0.2246**	**0.0593**	**9.3000e-004**	**0.0602**		**176.7574**	**176.7574**	**3.9900e-003**	**4.2800e-003**	**178.1318**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4072**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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	0.0655	0.0393	0.5379	1.7000e-003	0.2236	1.0100e-003	0.2246	0.0593	9.3000e-004	0.0602		176.7574	176.7574	3.9900e-003	4.2800e-003	178.1318
Total	**0.0655**	**0.0393**	**0.5379**	**1.7000e-003**	**0.2236**	**1.0100e-003**	**0.2246**	**0.0593**	**9.3000e-004**	**0.0602**		**176.7574**	**176.7574**	**3.9900e-003**	**4.2800e-003**	**178.1318**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**10.7040**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0211	0.0132	0.1736	5.3000e-004	0.0671	3.2000e-004	0.0674	0.0178	2.9000e-004	0.0181		54.3567	54.3567	1.3300e-003	1.3800e-003	54.8008
Total	**0.0211**	**0.0132**	**0.1736**	**5.3000e-004**	**0.0671**	**3.2000e-004**	**0.0674**	**0.0178**	**2.9000e-004**	**0.0181**		**54.3567**	**54.3567**	**1.3300e-003**	**1.3800e-003**	**54.8008**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**10.5530**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0211	0.0132	0.1736	5.3000e-004	0.0671	3.2000e-004	0.0674	0.0178	2.9000e-004	0.0181		54.3567	54.3567	1.3300e-003	1.3800e-003	54.8008
Total	**0.0211**	**0.0132**	**0.1736**	**5.3000e-004**	**0.0671**	**3.2000e-004**	**0.0674**	**0.0178**	**2.9000e-004**	**0.0181**		**54.3567**	**54.3567**	**1.3300e-003**	**1.3800e-003**	**54.8008**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**10.6941**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0196	0.0118	0.1614	5.1000e-004	0.0671	3.0000e-004	0.0674	0.0178	2.8000e-004	0.0181		53.0272	53.0272	1.2000e-003	1.2800e-003	53.4395
Total	**0.0196**	**0.0118**	**0.1614**	**5.1000e-004**	**0.0671**	**3.0000e-004**	**0.0674**	**0.0178**	**2.8000e-004**	**0.0181**		**53.0272**	**53.0272**	**1.2000e-003**	**1.2800e-003**	**53.4395**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	10.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**10.5530**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0196	0.0118	0.1614	5.1000e-004	0.0671	3.0000e-004	0.0674	0.0178	2.8000e-004	0.0181		53.0272	53.0272	1.2000e-003	1.2800e-003	53.4395
Total	**0.0196**	**0.0118**	**0.1614**	**5.1000e-004**	**0.0671**	**3.0000e-004**	**0.0674**	**0.0178**	**2.8000e-004**	**0.0181**		**53.0272**	**53.0272**	**1.2000e-003**	**1.2800e-003**	**53.4395**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.2355	0.3520	2.2786	5.2500e-003	0.5856	4.2800e-003	0.5899	0.1562	4.0000e-003	0.1602		548.4145	548.4145	0.0312	0.0274	557.3434
Unmitigated	0.2355	0.3520	2.2786	5.2500e-003	0.5856	4.2800e-003	0.5899	0.1562	4.0000e-003	0.1602		548.4145	548.4145	0.0312	0.0274	557.3434

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	89.81	89.81	89.81	277,353	277,353
Parking Lot	0.00	0.00	0.00		
Total	89.81	89.81	89.81	277,353	277,353

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
Government (Civic Center)	16.60	8.40	6.90	75.00	20.00	5.00	50	34	16
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
NaturalGas Unmitigated	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Government (Civic Center)	176.199	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Parking Lot	0	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
Total		**1.9000e-003**	**0.0173**	**0.0145**	**1.0000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**		**20.7293**	**20.7293**	**4.0000e-004**	**3.8000e-004**	**20.8524**

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					
Government (Civic Center)	0.176199	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003		20.7293	20.7293	4.0000e-004	3.8000e-004	20.8524
Parking Lot	0	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
Total		**1.9000e-003**	**0.0173**	**0.0145**	**1.0000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**		**20.7293**	**20.7293**	**4.0000e-004**	**3.8000e-004**	**20.8524**

6.0 Area Detail

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	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	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Unmitigated	0.3918	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3911					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Total	**0.3918**	**7.0000e-005**	**7.6200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0164**	**0.0164**	**4.0000e-005**		**0.0175**

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3911					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.6200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0164	0.0164	4.0000e-005		0.0175
Total	**0.3918**	**7.0000e-005**	**7.6200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0164**	**0.0164**	**4.0000e-005**		**0.0175**

7.0 Water Detail

7.1 Mitigation Measures Water

Chino Fire Department - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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 B

AERMOD Dispersion Model (DPM Fire Truck Operations)

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1                     AERMOD PRIME - (DATED  19191)

                    AERMODPrMSPx VERSION
              (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  7/20/2023 at  7:12:33

** BREEZE AERMOD
** Trinity Consultants
** VERSION  10.0

CO STARTING
CO TITLEONE  Latitude PM10 Construction
CO MODELOPT  DFAULT  CONC  NODRYDPLT  NOWETDPLT
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  TVY2T000  POINT     434037.3  3757757.5  0
** SRCDESCR  T1
SO LOCATION  TVY2T001  POINT     434023.9  3757740.7  0
** SRCDESCR  T2
SO LOCATION  TVY2T003  POINT     434033.2  3757753.1  0
** SRCDESCR  T3
SO LOCATION  TVY2T004  POINT     434028.4  3757746.8  0
** SRCDESCR  T4
SO LOCATION  TVY2T005  POINT     433953.3  3757789.6  0
** SRCDESCR  T5
SO LOCATION  TVY2T006  POINT     433958.1  3757788.1  0
** SRCDESCR  T6
SO LOCATION  TVY2T007  POINT     433962.9  3757787.5  0
** SRCDESCR  T7
SO LOCATION  TVY2T00I  VOLUME    434015.8  3757741.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00J  VOLUME    434010.9  3757742.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00K  VOLUME    434006.0  3757743.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00L  VOLUME    434001.1  3757744.8  0
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SO LOCATION  TVY2T00M  VOLUME    433996.2  3757745.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00N  VOLUME    433991.3  3757746.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00O  VOLUME    433991.3  3757751.1  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00P  VOLUME    433992.2  3757756.1  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00Q  VOLUME    433993.1  3757761.0  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00R  VOLUME    433994.1  3757765.9  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00S  VOLUME    433995.0  3757770.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00T  VOLUME    433995.9  3757775.7  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00U  VOLUME    433996.9  3757780.6  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00V  VOLUME    433997.8  3757785.5  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00W  VOLUME    433992.9  3757786.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00X  VOLUME    433988.0  3757787.3  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T00Y  VOLUME    433983.1  3757788.1  0
** SRCDESCR  Fire Truck Modeling Path worst-case
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SO LOCATION  TVY2T00Z  VOLUME    433978.1  3757788.9  0
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SO LOCATION  TVY2T010  VOLUME    433973.2  3757789.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T011  VOLUME    433968.3  3757790.6  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T012  VOLUME    433963.4  3757791.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T013  VOLUME    433961.0  3757793.9  0
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SO LOCATION  TVY2T014  VOLUME    433962.2  3757798.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T015  VOLUME    433963.4  3757803.6  0
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SO LOCATION  TVY2T016  VOLUME    433964.6  3757808.5  0
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** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T02V  VOLUME    434243.5  3757690.6  0
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SO LOCATION  TVY2T059  VOLUME    433977.0  3757783.1  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05A  VOLUME    433981.9  3757782.0  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05B  VOLUME    433986.8  3757780.9  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05C  VOLUME    433991.6  3757779.9  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05D  VOLUME    433991.1  3757775.2  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05E  VOLUME    433990.2  3757770.3  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05F  VOLUME    433989.2  3757765.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05G  VOLUME    433988.3  3757760.5  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05H  VOLUME    433987.3  3757755.6  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05I  VOLUME    433986.4  3757750.7  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05J  VOLUME    433985.4  3757745.8  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05K  VOLUME    433988.3  3757743.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05L  VOLUME    433993.2  3757742.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05M  VOLUME    433998.1  3757741.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05N  VOLUME    434003.0  3757740.4  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05O  VOLUME    434007.9  3757739.3  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05P  VOLUME    434012.8  3757738.3  0
** SRCDESCR  Fire Truck Modeling Path worst-case
SO LOCATION  TVY2T05Q  VOLUME    434017.7  3757737.3  0
** SRCDESCR  Fire Truck Modeling Path worst-case
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SO BUILDHGT  TVY2T000       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T000       4.00      4.00      4.00      0.00      0.00      0.00
SO BUILDHGT  TVY2T000       0.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T000       4.00      4.00      4.00      4.00      4.00      4.00
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SO BUILDWID  TVY2T000       0.00     34.03     34.70     34.76     34.67     33.52
SO BUILDWID  TVY2T000      32.08     34.73     36.36     36.89     36.30     34.60
SO BUILDWID  TVY2T000      31.85     28.14     23.56      0.00      0.00      0.00
SO BUILDWID  TVY2T000       0.00     34.03     34.70     34.76     34.67     33.52
SO BUILDWID  TVY2T000      32.08     34.73     36.36     36.89     36.30     34.60
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SO	BUILDLEN	TVY2T000	0.00	36.30	34.60	31.85	28.14	23.56
SO	BUILDLEN	TVY2T000	21.69	26.07	29.65	32.33	34.03	34.70
SO	XBADJ	TVY2T000	-34.48	-32.21	-28.97	0.00	0.00	0.00
SO	XBADJ	TVY2T000	0.00	-15.61	-11.90	-7.83	-3.52	0.89
SO	XBADJ	TVY2T000	4.24	3.79	3.22	2.55	1.80	1.00
SO	XBADJ	TVY2T000	-0.28	-2.46	-4.55	0.00	0.00	0.00
SO	XBADJ	TVY2T000	0.00	-20.69	-22.70	-24.02	-24.61	-24.46
SO	XBADJ	TVY2T000	-25.94	-29.85	-32.87	-34.88	-35.83	-35.70
SO	YBADJ	TVY2T000	-8.10	-10.55	-12.68	0.00	0.00	0.00
SO	YBADJ	TVY2T000	0.00	-18.82	-18.35	-17.10	-14.88	-12.21
SO	YBADJ	TVY2T000	-8.80	-6.15	-3.32	-0.40	2.54	5.40
SO	YBADJ	TVY2T000	8.10	10.55	12.68	0.00	0.00	0.00
SO	YBADJ	TVY2T000	0.00	18.82	18.35	17.10	14.88	12.21
SO	YBADJ	TVY2T000	8.80	6.15	3.32	0.40	-2.54	-5.40
SO	BUILDHGT	TVY2T001	0.00	0.00	0.00	0.00	4.00	4.00
SO	BUILDHGT	TVY2T001	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T001	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T001	0.00	0.00	0.00	0.00	4.00	4.00
SO	BUILDHGT	TVY2T001	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T001	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDWID	TVY2T001	0.00	0.00	0.00	0.00	26.07	29.65
SO	BUILDWID	TVY2T001	32.33	34.03	34.70	34.76	34.67	33.52
SO	BUILDWID	TVY2T001	32.08	34.73	36.36	36.89	36.30	34.60
SO	BUILDWID	TVY2T001	0.00	0.00	0.00	0.00	26.07	29.65
SO	BUILDWID	TVY2T001	32.33	34.03	34.70	34.76	34.67	33.52
SO	BUILDWID	TVY2T001	32.08	34.73	36.36	36.89	36.30	34.60
SO	BUILDLEN	TVY2T001	0.00	0.00	0.00	0.00	34.73	36.36
SO	BUILDLEN	TVY2T001	36.89	36.30	34.60	31.85	28.14	23.56
SO	BUILDLEN	TVY2T001	21.69	26.07	29.65	32.33	34.03	34.70
SO	BUILDLEN	TVY2T001	0.00	0.00	0.00	0.00	34.73	36.36
SO	BUILDLEN	TVY2T001	36.89	36.30	34.60	31.85	28.14	23.56
SO	BUILDLEN	TVY2T001	21.69	26.07	29.65	32.33	34.03	34.70
SO	XBADJ	TVY2T001	0.00	0.00	0.00	0.00	-2.45	-1.50
SO	XBADJ	TVY2T001	-0.51	0.50	1.50	2.45	3.32	4.10
SO	XBADJ	TVY2T001	3.71	-0.47	-4.63	-8.66	-12.42	-15.80
SO	XBADJ	TVY2T001	0.00	0.00	0.00	0.00	-32.28	-34.86
SO	XBADJ	TVY2T001	-36.39	-36.80	-36.10	-34.30	-31.46	-27.66
SO	XBADJ	TVY2T001	-25.40	-25.60	-25.02	-23.68	-21.62	-18.90
SO	YBADJ	TVY2T001	0.00	0.00	0.00	0.00	-12.56	-10.19
SO	YBADJ	TVY2T001	-7.51	-4.60	-1.55	1.77	5.49	9.04
SO	YBADJ	TVY2T001	12.68	14.92	16.68	17.94	18.65	18.80
SO	YBADJ	TVY2T001	0.00	0.00	0.00	0.00	12.56	10.19
SO	YBADJ	TVY2T001	7.51	4.60	1.55	-1.77	-5.49	-9.04
SO	YBADJ	TVY2T001	-12.68	-14.92	-16.68	-17.94	-18.65	-18.80
SO	BUILDHGT	TVY2T003	4.00	4.00	0.00	0.00	0.00	4.00
SO	BUILDHGT	TVY2T003	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T003	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T003	4.00	4.00	0.00	0.00	0.00	4.00
SO	BUILDHGT	TVY2T003	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDHGT	TVY2T003	4.00	4.00	4.00	4.00	4.00	4.00
SO	BUILDWID	TVY2T003	31.85	28.14	0.00	0.00	0.00	29.65
SO	BUILDWID	TVY2T003	32.33	34.03	34.70	34.76	34.67	33.52
SO	BUILDWID	TVY2T003	32.08	34.73	36.36	36.89	36.30	34.60
SO	BUILDWID	TVY2T003	31.85	28.14	0.00	0.00	0.00	29.65
SO	BUILDWID	TVY2T003	32.33	34.03	34.70	34.76	34.67	33.52
SO	BUILDWID	TVY2T003	32.08	34.73	36.36	36.89	36.30	34.60
SO	BUILDLEN	TVY2T003	34.76	34.67	0.00	0.00	0.00	36.36
SO	BUILDLEN	TVY2T003	36.89	36.30	34.60	31.85	28.14	23.56
SO	BUILDLEN	TVY2T003	21.69	26.07	29.65	32.33	34.03	34.70
SO	BUILDLEN	TVY2T003	34.76	34.67	0.00	0.00	0.00	36.36
SO	BUILDLEN	TVY2T003	36.89	36.30	34.60	31.85	28.14	23.56
SO	BUILDLEN	TVY2T003	21.69	26.07	29.65	32.33	34.03	34.70
SO	XBADJ	TVY2T003	-29.44	-26.68	0.00	0.00	0.00	-15.76
SO	XBADJ	TVY2T003	-13.49	-10.81	-7.80	-4.56	-1.17	2.25
SO	XBADJ	TVY2T003	4.56	3.05	1.46	-0.19	-1.82	-3.40

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SO XBADJ     TVY2T003      -5.33     -7.99      0.00      0.00      0.00    -20.61
SO XBADJ     TVY2T003     -23.41    -25.49    -26.80    -27.30    -26.96    -25.81
SO XBADJ     TVY2T003     -26.25    -29.12    -31.11    -32.15    -32.21    -31.30
SO YBADJ     TVY2T003     -11.37    -12.89      0.00      0.00      0.00    -16.28
SO YBADJ     TVY2T003     -15.98    -15.20    -13.95    -12.05     -9.34     -6.35
SO YBADJ     TVY2T003      -2.80     -0.18      2.43      4.96      7.34      9.50
SO YBADJ     TVY2T003      11.37     12.89      0.00      0.00      0.00     16.28
SO YBADJ     TVY2T003      15.98     15.20     13.95     12.05      9.34      6.35
SO YBADJ     TVY2T003       2.80      0.18     -2.43     -4.96     -7.34     -9.50
SO BUILDHGT  TVY2T004       4.00      4.00      0.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T004       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T004       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T004       4.00      4.00      0.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T004       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T004       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDWID  TVY2T004      31.85     28.14      0.00      0.00     26.07     29.65
SO BUILDWID  TVY2T004      32.33     34.03     34.70     34.76     34.67     33.52
SO BUILDWID  TVY2T004      32.08     34.73     36.36     36.89     36.30     34.60
SO BUILDWID  TVY2T004      31.85     28.14      0.00      0.00     26.07     29.65
SO BUILDWID  TVY2T004      32.33     34.03     34.70     34.76     34.67     33.52
SO BUILDWID  TVY2T004      32.08     34.73     36.36     36.89     36.30     34.60
SO BUILDLEN  TVY2T004      34.76     34.67      0.00      0.00     34.73     36.36
SO BUILDLEN  TVY2T004      36.89     36.30     34.60     31.85     28.14     23.56
SO BUILDLEN  TVY2T004      21.69     26.07     29.65     32.33     34.03     34.70
SO BUILDLEN  TVY2T004      34.76     34.67      0.00      0.00     34.73     36.36
SO BUILDLEN  TVY2T004      36.89     36.30     34.60     31.85     28.14     23.56
SO BUILDLEN  TVY2T004      21.69     26.07     29.65     32.33     34.03     34.70
SO XBADJ     TVY2T004     -22.40    -19.11      0.00      0.00     -9.82     -8.45
SO XBADJ     TVY2T004      -6.82     -4.99     -3.00     -0.92      1.18      3.25
SO XBADJ     TVY2T004       4.18      1.31     -1.60     -4.46     -7.19     -9.70
SO XBADJ     TVY2T004     -12.37    -15.55      0.00      0.00    -24.91    -27.92
SO XBADJ     TVY2T004     -30.07    -31.31    -31.60    -30.93    -29.32    -26.82
SO XBADJ     TVY2T004     -25.88    -27.38    -28.05    -27.87    -26.84    -25.00
SO YBADJ     TVY2T004     -15.00    -15.25      0.00      0.00    -14.35    -13.23
SO YBADJ     TVY2T004     -11.70     -9.83     -7.65     -5.02     -1.78      1.51
SO YBADJ     TVY2T004       5.12      7.55      9.73     11.62     13.16     14.30
SO YBADJ     TVY2T004      15.00     15.25      0.00      0.00     14.35     13.23
SO YBADJ     TVY2T004      11.70      9.83      7.65      5.02      1.78     -1.51
SO YBADJ     TVY2T004      -5.12     -7.55     -9.73    -11.62    -13.16    -14.30
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T005       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDWID  TVY2T005      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T005      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T005      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDWID  TVY2T005      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T005      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T005      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDLEN  TVY2T005      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T005      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T005      49.95     49.37     47.29     43.78     41.19     41.90
SO BUILDLEN  TVY2T005      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T005      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T005      49.95     49.37     47.29     43.78     41.19     41.90
SO XBADJ     TVY2T005     -44.52    -46.75    -48.04    -47.87    -46.24    -43.21
SO XBADJ     TVY2T005     -38.86    -33.34    -26.80      0.00    -18.39    -16.99
SO XBADJ     TVY2T005     -15.07    -12.69     -9.92     -6.86     -3.58     -0.20
SO XBADJ     TVY2T005       3.19     -0.92     -5.15     -9.23    -13.03    -16.43
SO XBADJ     TVY2T005     -19.33    -21.64    -23.30      0.00    -28.19    -32.03
SO XBADJ     TVY2T005     -34.88    -36.68    -37.37    -36.92    -37.61    -41.70
SO YBADJ     TVY2T005      -2.40     -4.90     -7.52     -9.91    -12.00    -13.72
SO YBADJ     TVY2T005     -15.03    -17.01    -20.75      0.00    -22.92    -21.44
SO YBADJ     TVY2T005     -19.32    -16.61    -13.39     -9.77     -5.85     -1.75
SO YBADJ     TVY2T005       2.40      4.90      7.52      9.91     12.00     13.72
SO YBADJ     TVY2T005      15.03     17.01     20.75      0.00     22.92     21.44
SO YBADJ     TVY2T005      19.32     16.61     13.39      9.77      5.85      1.75
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SO BUILDHGT  TVY2T006       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T006       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T006       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T006       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T006       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T006       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDWID  TVY2T006      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T006      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T006      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDWID  TVY2T006      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T006      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T006      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDLEN  TVY2T006      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T006      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T006      49.95     49.37     47.29     43.78     41.19     41.90
SO BUILDLEN  TVY2T006      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T006      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T006      49.95     49.37     47.29     43.78     41.19     41.90
SO XBADJ     TVY2T006     -43.88    -46.99    -49.14    -49.80    -48.95    -46.62
SO XBADJ     TVY2T006     -42.86    -37.81    -31.60      0.00    -23.42    -21.89
SO XBADJ     TVY2T006     -19.71    -16.92    -13.62     -9.91     -5.89     -1.70
SO XBADJ     TVY2T006       2.55     -0.69     -4.05     -7.30    -10.32    -13.02
SO XBADJ     TVY2T006     -15.33    -17.18    -18.50      0.00    -23.17    -27.12
SO XBADJ     TVY2T006     -30.24    -32.45    -33.67    -33.87    -35.30    -40.20
SO YBADJ     TVY2T006       2.59      0.12     -2.61     -5.27     -7.76    -10.02
SO YBADJ     TVY2T006     -11.98    -14.70    -19.25      0.00    -23.15    -22.54
SO YBADJ     TVY2T006     -21.25    -19.32    -16.80    -13.76    -10.31     -6.55
SO YBADJ     TVY2T006      -2.59     -0.12      2.61      5.27      7.76     10.02
SO YBADJ     TVY2T006      11.98     14.70     19.25      0.00     23.15     22.54
SO YBADJ     TVY2T006      21.25     19.32     16.80     13.76     10.31      6.55
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      0.00      4.00      4.00
SO BUILDHGT  TVY2T007       4.00      4.00      4.00      4.00      4.00      4.00
SO BUILDWID  TVY2T007      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T007      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T007      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDWID  TVY2T007      43.70     46.58     49.01     49.95     49.37     47.29
SO BUILDWID  TVY2T007      43.78     41.19     41.90      0.00     47.68     53.20
SO BUILDWID  TVY2T007      57.10     59.27     59.64     58.19     54.98     50.10
SO BUILDLEN  TVY2T007      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T007      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T007      49.95     49.37     47.29     43.78     41.19     41.90
SO BUILDLEN  TVY2T007      41.33     47.68     53.20     57.10     59.27     59.64
SO BUILDLEN  TVY2T007      58.19     54.98     50.10      0.00     46.58     49.01
SO BUILDLEN  TVY2T007      49.95     49.37     47.29     43.78     41.19     41.90
SO XBADJ     TVY2T007     -44.12    -48.06    -51.02    -52.43    -52.25    -50.47
SO XBADJ     TVY2T007     -47.17    -42.43    -36.40      0.00    -28.13    -26.35
SO XBADJ     TVY2T007     -23.77    -20.47    -16.54    -12.11     -7.32     -2.30
SO XBADJ     TVY2T007       2.79      0.39     -2.17     -4.67     -7.02     -9.16
SO XBADJ     TVY2T007     -11.03    -12.55    -13.70      0.00    -18.45    -22.66
SO XBADJ     TVY2T007     -26.18    -28.90    -30.75    -31.66    -33.88    -39.60
SO YBADJ     TVY2T007       7.42      4.84      1.85     -1.21     -4.22     -7.10
SO YBADJ     TVY2T007      -9.77    -13.28    -18.65      0.00    -24.23    -24.42
SO YBADJ     TVY2T007     -23.88    -22.61    -20.65    -18.07    -14.94    -11.35
SO YBADJ     TVY2T007      -7.42     -4.84     -1.85      1.21      4.22      7.10
SO YBADJ     TVY2T007       9.77     13.28     18.65      0.00     24.23     24.42
SO YBADJ     TVY2T007      23.88     22.61     20.65     18.07     14.94     11.35
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDCART TVY2T05R STA
** GRDDESCR  gridded receptors
RE GRIDCART TVY2T05R XYINC  433570.4  21  43.9  3758012.3  21  -34.7
RE GRIDCART TVY2T05R ELEV  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
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RE GRIDCART TVY2T05R ELEV  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  18  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R ELEV  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  18  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R HILL  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART TVY2T05R END
RE DISCCART  434054.9  3757689.7  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  434166.5  3757796.7  0  0
** SENSITIV
** RCPDESCR  S2
RE DISCCART  434026.6  3757831.8  0  0
** SENSITIV
** RCPDESCR  R3
RE DISCCART  433947.1  3757844.6  0  0
** SENSITIV
** RCPDESCR  R4
RE DISCCART  433882.9  3757752.6  0  0
** SENSITIV
** RCPDESCR  R5
RE DISCCART  433882.5  3757690.2  0  0
** SENSITIV
** RCPDESCR  R6
RE FINISHED

ME STARTING
ME SURFFILE  "G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station
68\071823\AERMOD\ChinoAirportADJU\KCNO_V9_ADJU\KCNO_v9.SFC"
** SURFFILE  "G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station
68\071823\AERMOD\ChinoAirportADJU\KCNO_V9_ADJU\KCNO_v9.SFC"
ME PROFFILE  "G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station
68\071823\AERMOD\ChinoAirportADJU\KCNO_V9_ADJU\KCNO_v9.PFL"
```

```
** PROFFILE  "G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station
68\071823\AERMOD\ChinoAirportADJU\KCNO_V9_ADJU\KCNO_v9.PFL"
ME SURFDATA  3179 2012
ME UAIRDATA  3190 2012
ME PROFBASE  0  METERS
ME STARTEND  2016  1  1  1  2016  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** ************************************************************************
** It is recommended that the user not edit any data below this line
** ************************************************************************

** BUILDING BLD  0  0  0  4  10
** BUILDING IDN  TVY2T00E
** BUILDING NAM  B1
** BUILDING CRN  433934.7  3757789.4
** BUILDING CRN  433926.5  3757749.6
** BUILDING CRN  433933.4  3757747.9
** BUILDING CRN  433934.7  3757753.5
** BUILDING CRN  433944.1  3757752.2
** BUILDING CRN  433945.8  3757763.3
** BUILDING CRN  433971.4  3757756.9
** BUILDING CRN  433976.6  3757782.1
** BUILDING CRN  433933.8  3757789.8
** BUILDING CRN  433934.7  3757789.4
** BUILDING BLD  0  0  0  4  7
** BUILDING IDN  TVY2T00F
** BUILDING NAM  B2
** BUILDING CRN  434042  3757756.5
** BUILDING CRN  434025.4  3757735.1
** BUILDING CRN  434041.2  3757721.8
** BUILDING CRN  434060  3757747.9
** BUILDING CRN  434049.7  3757755.6
** BUILDING CRN  434048  3757751.3
** BUILDING CRN  434042  3757756.5

** TAG NAM  TVY2T00H
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
434018.2,3757741.3,0,433990.5,3757747.0,0,433997.8,3757785.6,0,433960.5,3757791.9,0,433964.9,3757809.6,0,434065.9,3
757777.7,0,434161.1,3757735.6,0,434258.5,3757682.4,0,434265.9,3757698.4,0,434155.8,3757756.9,0,434065.4,3757797.9,0
,433959.0,3757825.0,0,433953.2,3757788.3,0,433992.0,3757779.8,0,433985.1,3757744.1,0,434018.1,3757737.2,0

** AMPTYPE
** AMPDATUM  -1
** AMPZONE  -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
```

```
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE  AERMAP_EPA_18081_64.EXE



  *** 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   ********
 ME W186     900       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
 ME W187     900       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

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

 *** AERMOD - VERSION  19191 ***   ***  Latitude PM10 Construction                                    ***
     07/20/23
 *** AERMET - VERSION  16216 ***   ***                                                               ***
   07:12:33

   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  ADJ_U*

                                          ***     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 RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only
```

```
 **This Run Includes:    196 Source(s);       1 Source Group(s); and     447 Receptor(s)

               with:      7 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    189 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT 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:  16216

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE 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) =     0.00 ;  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 =      3.9 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 *** AERMOD - VERSION  19191 ***   ***  Latitude PM10 Construction                                          ***
     07/20/23
 *** AERMET - VERSION  16216 ***   ***                                                                     ***
   07:12:33

   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  ADJ_U*


                                          *** POINT SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 TVY2T000         0   0.33715E-07  434037.3 3757757.5     0.0     3.00   325.00     0.00     0.10    YES     NO
NO
 TVY2T001         0   0.33715E-07  434023.9 3757740.7     0.0     3.00   325.00     0.00     0.10    YES     NO
NO
 TVY2T003         0   0.33715E-07  434033.2 3757753.1     0.0     3.00   325.00     0.00     0.10    YES     NO
NO
 TVY2T004         0   0.33715E-07  434028.4 3757746.8     0.0     3.00   325.00     0.00     0.10    YES     NO
NO
 TVY2T005         0   0.33715E-07  433953.3 3757789.6     0.0     3.00   325.00     0.00     0.10    YES     NO
NO
 TVY2T006         0   0.33715E-07  433958.1 3757788.1     0.0     3.00   325.00     0.00     0.10    YES     NO
```

NO
 TVY2T007   0   0.33715E-07 433962.9 3757787.5   0.0   3.00   325.00   0.00   0.10   YES   NO
NO

*** 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
TVY2T00I	0	0.33200E-07	434015.8	3757741.8	0.0	3.00	2.33	2.79	NO	
TVY2T00J	0	0.33200E-07	434010.9	3757742.8	0.0	3.00	2.33	2.79	NO	
TVY2T00K	0	0.33200E-07	434006.0	3757743.8	0.0	3.00	2.33	2.79	NO	
TVY2T00L	0	0.33200E-07	434001.1	3757744.8	0.0	3.00	2.33	2.79	NO	
TVY2T00M	0	0.33200E-07	433996.2	3757745.8	0.0	3.00	2.33	2.79	NO	
TVY2T00N	0	0.33200E-07	433991.3	3757746.8	0.0	3.00	2.33	2.79	NO	
TVY2T00O	0	0.33200E-07	433991.3	3757751.1	0.0	3.00	2.33	2.79	NO	
TVY2T00P	0	0.33200E-07	433992.2	3757756.1	0.0	3.00	2.33	2.79	NO	
TVY2T00Q	0	0.33200E-07	433993.1	3757761.0	0.0	3.00	2.33	2.79	NO	
TVY2T00R	0	0.33200E-07	433994.1	3757765.9	0.0	3.00	2.33	2.79	NO	
TVY2T00S	0	0.33200E-07	433995.0	3757770.8	0.0	3.00	2.33	2.79	NO	
TVY2T00T	0	0.33200E-07	433995.9	3757775.7	0.0	3.00	2.33	2.79	NO	
TVY2T00U	0	0.33200E-07	433996.9	3757780.6	0.0	3.00	2.33	2.79	NO	
TVY2T00V	0	0.33200E-07	433997.8	3757785.5	0.0	3.00	2.33	2.79	NO	
TVY2T00W	0	0.33200E-07	433992.9	3757786.4	0.0	3.00	2.33	2.79	NO	
TVY2T00X	0	0.33200E-07	433988.0	3757787.3	0.0	3.00	2.33	2.79	NO	
TVY2T00Y	0	0.33200E-07	433983.1	3757788.1	0.0	3.00	2.33	2.79	NO	
TVY2T00Z	0	0.33200E-07	433978.1	3757788.9	0.0	3.00	2.33	2.79	NO	
TVY2T010	0	0.33200E-07	433973.2	3757789.8	0.0	3.00	2.33	2.79	NO	
TVY2T011	0	0.33200E-07	433968.3	3757790.6	0.0	3.00	2.33	2.79	NO	
TVY2T012	0	0.33200E-07	433963.4	3757791.4	0.0	3.00	2.33	2.79	NO	
TVY2T013	0	0.33200E-07	433961.0	3757793.9	0.0	3.00	2.33	2.79	NO	
TVY2T014	0	0.33200E-07	433962.2	3757798.8	0.0	3.00	2.33	2.79	NO	
TVY2T015	0	0.33200E-07	433963.4	3757803.6	0.0	3.00	2.33	2.79	NO	
TVY2T016	0	0.33200E-07	433964.6	3757808.5	0.0	3.00	2.33	2.79	NO	
TVY2T017	0	0.33200E-07	433968.6	3757808.4	0.0	3.00	2.33	2.79	NO	
TVY2T018	0	0.33200E-07	433973.4	3757806.9	0.0	3.00	2.33	2.79	NO	
TVY2T019	0	0.33200E-07	433978.1	3757805.4	0.0	3.00	2.33	2.79	NO	
TVY2T01A	0	0.33200E-07	433982.9	3757803.9	0.0	3.00	2.33	2.79	NO	
TVY2T01B	0	0.33200E-07	433987.7	3757802.4	0.0	3.00	2.33	2.79	NO	
TVY2T01C	0	0.33200E-07	433992.4	3757800.9	0.0	3.00	2.33	2.79	NO	
TVY2T01D	0	0.33200E-07	433997.2	3757799.4	0.0	3.00	2.33	2.79	NO	
TVY2T01E	0	0.33200E-07	434002.0	3757797.9	0.0	3.00	2.33	2.79	NO	
TVY2T01F	0	0.33200E-07	434006.7	3757796.4	0.0	3.00	2.33	2.79	NO	
TVY2T01G	0	0.33200E-07	434011.5	3757794.9	0.0	3.00	2.33	2.79	NO	
TVY2T01H	0	0.33200E-07	434016.3	3757793.4	0.0	3.00	2.33	2.79	NO	
TVY2T01I	0	0.33200E-07	434021.0	3757791.9	0.0	3.00	2.33	2.79	NO	
TVY2T01J	0	0.33200E-07	434025.8	3757790.4	0.0	3.00	2.33	2.79	NO	
TVY2T01K	0	0.33200E-07	434030.6	3757788.9	0.0	3.00	2.33	2.79	NO	
TVY2T01L	0	0.33200E-07	434035.3	3757787.4	0.0	3.00	2.33	2.79	NO	

*** 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
TVY2T01M	0	0.33200E-07	434040.1	3757785.8	0.0	3.00	2.33	2.79	NO	
TVY2T01N	0	0.33200E-07	434044.9	3757784.3	0.0	3.00	2.33	2.79	NO	
TVY2T01O	0	0.33200E-07	434049.6	3757782.8	0.0	3.00	2.33	2.79	NO	
TVY2T01P	0	0.33200E-07	434054.4	3757781.3	0.0	3.00	2.33	2.79	NO	
TVY2T01Q	0	0.33200E-07	434059.2	3757779.8	0.0	3.00	2.33	2.79	NO	
TVY2T01R	0	0.33200E-07	434063.9	3757778.3	0.0	3.00	2.33	2.79	NO	
TVY2T01S	0	0.33200E-07	434068.6	3757776.5	0.0	3.00	2.33	2.79	NO	
TVY2T01T	0	0.33200E-07	434073.2	3757774.5	0.0	3.00	2.33	2.79	NO	
TVY2T01U	0	0.33200E-07	434077.7	3757772.5	0.0	3.00	2.33	2.79	NO	
TVY2T01V	0	0.33200E-07	434082.3	3757770.4	0.0	3.00	2.33	2.79	NO	
TVY2T01W	0	0.33200E-07	434086.9	3757768.4	0.0	3.00	2.33	2.79	NO	
TVY2T01X	0	0.33200E-07	434091.5	3757766.4	0.0	3.00	2.33	2.79	NO	
TVY2T01Y	0	0.33200E-07	434096.0	3757764.4	0.0	3.00	2.33	2.79	NO	
TVY2T01Z	0	0.33200E-07	434100.6	3757762.4	0.0	3.00	2.33	2.79	NO	
TVY2T020	0	0.33200E-07	434105.2	3757760.3	0.0	3.00	2.33	2.79	NO	
TVY2T021	0	0.33200E-07	434109.8	3757758.3	0.0	3.00	2.33	2.79	NO	
TVY2T022	0	0.33200E-07	434114.3	3757756.3	0.0	3.00	2.33	2.79	NO	
TVY2T023	0	0.33200E-07	434118.9	3757754.3	0.0	3.00	2.33	2.79	NO	
TVY2T024	0	0.33200E-07	434123.5	3757752.2	0.0	3.00	2.33	2.79	NO	
TVY2T025	0	0.33200E-07	434128.0	3757750.2	0.0	3.00	2.33	2.79	NO	
TVY2T026	0	0.33200E-07	434132.6	3757748.2	0.0	3.00	2.33	2.79	NO	
TVY2T027	0	0.33200E-07	434137.2	3757746.2	0.0	3.00	2.33	2.79	NO	
TVY2T028	0	0.33200E-07	434141.8	3757744.2	0.0	3.00	2.33	2.79	NO	
TVY2T029	0	0.33200E-07	434146.3	3757742.1	0.0	3.00	2.33	2.79	NO	
TVY2T02A	0	0.33200E-07	434150.9	3757740.1	0.0	3.00	2.33	2.79	NO	
TVY2T02B	0	0.33200E-07	434155.5	3757738.1	0.0	3.00	2.33	2.79	NO	
TVY2T02C	0	0.33200E-07	434160.1	3757736.1	0.0	3.00	2.33	2.79	NO	
TVY2T02D	0	0.33200E-07	434164.5	3757733.8	0.0	3.00	2.33	2.79	NO	
TVY2T02E	0	0.33200E-07	434168.9	3757731.4	0.0	3.00	2.33	2.79	NO	
TVY2T02F	0	0.33200E-07	434173.3	3757729.0	0.0	3.00	2.33	2.79	NO	
TVY2T02G	0	0.33200E-07	434177.6	3757726.6	0.0	3.00	2.33	2.79	NO	
TVY2T02H	0	0.33200E-07	434182.0	3757724.2	0.0	3.00	2.33	2.79	NO	
TVY2T02I	0	0.33200E-07	434186.4	3757721.8	0.0	3.00	2.33	2.79	NO	
TVY2T02J	0	0.33200E-07	434190.8	3757719.4	0.0	3.00	2.33	2.79	NO	
TVY2T02K	0	0.33200E-07	434195.2	3757717.0	0.0	3.00	2.33	2.79	NO	
TVY2T02L	0	0.33200E-07	434199.6	3757714.6	0.0	3.00	2.33	2.79	NO	
TVY2T02M	0	0.33200E-07	434204.0	3757712.2	0.0	3.00	2.33	2.79	NO	
TVY2T02N	0	0.33200E-07	434208.4	3757709.8	0.0	3.00	2.33	2.79	NO	
TVY2T02O	0	0.33200E-07	434212.8	3757707.4	0.0	3.00	2.33	2.79	NO	
TVY2T02P	0	0.33200E-07	434217.1	3757705.0	0.0	3.00	2.33	2.79	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** 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
TVY2T02Q	0	0.33200E-07	434221.5	3757702.6	0.0	3.00	2.33	2.79	NO	
TVY2T02R	0	0.33200E-07	434225.9	3757700.2	0.0	3.00	2.33	2.79	NO	
TVY2T02S	0	0.33200E-07	434230.3	3757697.8	0.0	3.00	2.33	2.79	NO	
TVY2T02T	0	0.33200E-07	434234.7	3757695.4	0.0	3.00	2.33	2.79	NO	

TVY2T02U	0	0.33200E-07	434239.1	3757693.0	0.0	3.00	2.33	2.79	NO
TVY2T02V	0	0.33200E-07	434243.5	3757690.6	0.0	3.00	2.33	2.79	NO
TVY2T02W	0	0.33200E-07	434247.9	3757688.2	0.0	3.00	2.33	2.79	NO
TVY2T02X	0	0.33200E-07	434252.2	3757685.8	0.0	3.00	2.33	2.79	NO
TVY2T02Y	0	0.33200E-07	434256.6	3757683.4	0.0	3.00	2.33	2.79	NO
TVY2T02Z	0	0.33200E-07	434259.7	3757685.0	0.0	3.00	2.33	2.79	NO
TVY2T030	0	0.33200E-07	434261.8	3757689.5	0.0	3.00	2.33	2.79	NO
TVY2T031	0	0.33200E-07	434263.9	3757694.1	0.0	3.00	2.33	2.79	NO
TVY2T032	0	0.33200E-07	434265.7	3757698.5	0.0	3.00	2.33	2.79	NO
TVY2T033	0	0.33200E-07	434261.3	3757700.9	0.0	3.00	2.33	2.79	NO
TVY2T034	0	0.33200E-07	434256.9	3757703.2	0.0	3.00	2.33	2.79	NO
TVY2T035	0	0.33200E-07	434252.4	3757705.6	0.0	3.00	2.33	2.79	NO
TVY2T036	0	0.33200E-07	434248.0	3757707.9	0.0	3.00	2.33	2.79	NO
TVY2T037	0	0.33200E-07	434243.6	3757710.2	0.0	3.00	2.33	2.79	NO
TVY2T038	0	0.33200E-07	434239.2	3757712.6	0.0	3.00	2.33	2.79	NO
TVY2T039	0	0.33200E-07	434234.8	3757714.9	0.0	3.00	2.33	2.79	NO
TVY2T03A	0	0.33200E-07	434230.4	3757717.3	0.0	3.00	2.33	2.79	NO
TVY2T03B	0	0.33200E-07	434225.9	3757719.6	0.0	3.00	2.33	2.79	NO
TVY2T03C	0	0.33200E-07	434221.5	3757722.0	0.0	3.00	2.33	2.79	NO
TVY2T03D	0	0.33200E-07	434217.1	3757724.3	0.0	3.00	2.33	2.79	NO
TVY2T03E	0	0.33200E-07	434212.7	3757726.7	0.0	3.00	2.33	2.79	NO
TVY2T03F	0	0.33200E-07	434208.3	3757729.0	0.0	3.00	2.33	2.79	NO
TVY2T03G	0	0.33200E-07	434203.9	3757731.4	0.0	3.00	2.33	2.79	NO
TVY2T03H	0	0.33200E-07	434199.5	3757733.7	0.0	3.00	2.33	2.79	NO
TVY2T03I	0	0.33200E-07	434195.0	3757736.1	0.0	3.00	2.33	2.79	NO
TVY2T03J	0	0.33200E-07	434190.6	3757738.4	0.0	3.00	2.33	2.79	NO
TVY2T03K	0	0.33200E-07	434186.2	3757740.7	0.0	3.00	2.33	2.79	NO
TVY2T03L	0	0.33200E-07	434181.8	3757743.1	0.0	3.00	2.33	2.79	NO
TVY2T03M	0	0.33200E-07	434177.4	3757745.4	0.0	3.00	2.33	2.79	NO
TVY2T03N	0	0.33200E-07	434173.0	3757747.8	0.0	3.00	2.33	2.79	NO
TVY2T03O	0	0.33200E-07	434168.5	3757750.1	0.0	3.00	2.33	2.79	NO
TVY2T03P	0	0.33200E-07	434164.1	3757752.5	0.0	3.00	2.33	2.79	NO
TVY2T03Q	0	0.33200E-07	434159.7	3757754.8	0.0	3.00	2.33	2.79	NO
TVY2T03R	0	0.33200E-07	434155.3	3757757.1	0.0	3.00	2.33	2.79	NO
TVY2T03S	0	0.33200E-07	434150.7	3757759.2	0.0	3.00	2.33	2.79	NO
TVY2T03T	0	0.33200E-07	434146.2	3757761.3	0.0	3.00	2.33	2.79	NO

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** 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
TVY2T03U	0	0.33200E-07	434141.6	3757763.3	0.0	3.00	2.33	2.79	NO	
TVY2T03V	0	0.33200E-07	434137.1	3757765.4	0.0	3.00	2.33	2.79	NO	
TVY2T03W	0	0.33200E-07	434132.5	3757767.5	0.0	3.00	2.33	2.79	NO	
TVY2T03X	0	0.33200E-07	434128.0	3757769.5	0.0	3.00	2.33	2.79	NO	
TVY2T03Y	0	0.33200E-07	434123.4	3757771.6	0.0	3.00	2.33	2.79	NO	
TVY2T03Z	0	0.33200E-07	434118.9	3757773.7	0.0	3.00	2.33	2.79	NO	
TVY2T040	0	0.33200E-07	434114.3	3757775.7	0.0	3.00	2.33	2.79	NO	
TVY2T041	0	0.33200E-07	434109.7	3757777.8	0.0	3.00	2.33	2.79	NO	
TVY2T042	0	0.33200E-07	434105.2	3757779.9	0.0	3.00	2.33	2.79	NO	
TVY2T043	0	0.33200E-07	434100.6	3757781.9	0.0	3.00	2.33	2.79	NO	
TVY2T044	0	0.33200E-07	434096.1	3757784.0	0.0	3.00	2.33	2.79	NO	
TVY2T045	0	0.33200E-07	434091.5	3757786.0	0.0	3.00	2.33	2.79	NO	
TVY2T046	0	0.33200E-07	434087.0	3757788.1	0.0	3.00	2.33	2.79	NO	
TVY2T047	0	0.33200E-07	434082.4	3757790.2	0.0	3.00	2.33	2.79	NO	
TVY2T048	0	0.33200E-07	434077.9	3757792.2	0.0	3.00	2.33	2.79	NO	
TVY2T049	0	0.33200E-07	434073.3	3757794.3	0.0	3.00	2.33	2.79	NO	

TVY2T04A	0	0.33200E-07	434068.8	3757796.4	0.0	3.00	2.33	2.79	NO
TVY2T04B	0	0.33200E-07	434064.1	3757798.2	0.0	3.00	2.33	2.79	NO
TVY2T04C	0	0.33200E-07	434059.3	3757799.5	0.0	3.00	2.33	2.79	NO
TVY2T04D	0	0.33200E-07	434054.4	3757800.7	0.0	3.00	2.33	2.79	NO
TVY2T04E	0	0.33200E-07	434049.6	3757801.9	0.0	3.00	2.33	2.79	NO
TVY2T04F	0	0.33200E-07	434044.8	3757803.2	0.0	3.00	2.33	2.79	NO
TVY2T04G	0	0.33200E-07	434039.9	3757804.4	0.0	3.00	2.33	2.79	NO
TVY2T04H	0	0.33200E-07	434035.1	3757805.6	0.0	3.00	2.33	2.79	NO
TVY2T04I	0	0.33200E-07	434030.2	3757806.9	0.0	3.00	2.33	2.79	NO
TVY2T04J	0	0.33200E-07	434025.4	3757808.1	0.0	3.00	2.33	2.79	NO
TVY2T04K	0	0.33200E-07	434020.5	3757809.3	0.0	3.00	2.33	2.79	NO
TVY2T04L	0	0.33200E-07	434015.7	3757810.6	0.0	3.00	2.33	2.79	NO
TVY2T04M	0	0.33200E-07	434010.8	3757811.8	0.0	3.00	2.33	2.79	NO
TVY2T04N	0	0.33200E-07	434006.0	3757813.0	0.0	3.00	2.33	2.79	NO
TVY2T04O	0	0.33200E-07	434001.1	3757814.3	0.0	3.00	2.33	2.79	NO
TVY2T04P	0	0.33200E-07	433996.3	3757815.5	0.0	3.00	2.33	2.79	NO
TVY2T04Q	0	0.33200E-07	433991.5	3757816.7	0.0	3.00	2.33	2.79	NO
TVY2T04R	0	0.33200E-07	433986.6	3757818.0	0.0	3.00	2.33	2.79	NO
TVY2T04S	0	0.33200E-07	433981.8	3757819.2	0.0	3.00	2.33	2.79	NO
TVY2T04T	0	0.33200E-07	433976.9	3757820.4	0.0	3.00	2.33	2.79	NO
TVY2T04U	0	0.33200E-07	433972.1	3757821.7	0.0	3.00	2.33	2.79	NO
TVY2T04V	0	0.33200E-07	433967.2	3757822.9	0.0	3.00	2.33	2.79	NO
TVY2T04W	0	0.33200E-07	433962.4	3757824.1	0.0	3.00	2.33	2.79	NO
TVY2T04X	0	0.33200E-07	433958.8	3757823.5	0.0	3.00	2.33	2.79	NO

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** 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
TVY2T04Y	0	0.33200E-07	433958.0	3757818.6	0.0	3.00	2.33	2.79	NO	
TVY2T04Z	0	0.33200E-07	433957.2	3757813.6	0.0	3.00	2.33	2.79	NO	
TVY2T050	0	0.33200E-07	433956.4	3757808.7	0.0	3.00	2.33	2.79	NO	
TVY2T051	0	0.33200E-07	433955.6	3757803.8	0.0	3.00	2.33	2.79	NO	
TVY2T052	0	0.33200E-07	433954.9	3757798.8	0.0	3.00	2.33	2.79	NO	
TVY2T053	0	0.33200E-07	433954.1	3757793.9	0.0	3.00	2.33	2.79	NO	
TVY2T054	0	0.33200E-07	433953.3	3757788.9	0.0	3.00	2.33	2.79	NO	
TVY2T055	0	0.33200E-07	433957.5	3757787.4	0.0	3.00	2.33	2.79	NO	
TVY2T056	0	0.33200E-07	433962.3	3757786.3	0.0	3.00	2.33	2.79	NO	
TVY2T057	0	0.33200E-07	433967.2	3757785.2	0.0	3.00	2.33	2.79	NO	
TVY2T058	0	0.33200E-07	433972.1	3757784.2	0.0	3.00	2.33	2.79	NO	
TVY2T059	0	0.33200E-07	433977.0	3757783.1	0.0	3.00	2.33	2.79	NO	
TVY2T05A	0	0.33200E-07	433981.9	3757782.0	0.0	3.00	2.33	2.79	NO	
TVY2T05B	0	0.33200E-07	433986.8	3757780.9	0.0	3.00	2.33	2.79	NO	
TVY2T05C	0	0.33200E-07	433991.6	3757779.9	0.0	3.00	2.33	2.79	NO	
TVY2T05D	0	0.33200E-07	433991.1	3757775.2	0.0	3.00	2.33	2.79	NO	
TVY2T05E	0	0.33200E-07	433990.2	3757770.3	0.0	3.00	2.33	2.79	NO	
TVY2T05F	0	0.33200E-07	433989.2	3757765.4	0.0	3.00	2.33	2.79	NO	
TVY2T05G	0	0.33200E-07	433988.3	3757760.5	0.0	3.00	2.33	2.79	NO	
TVY2T05H	0	0.33200E-07	433987.3	3757755.6	0.0	3.00	2.33	2.79	NO	
TVY2T05I	0	0.33200E-07	433986.4	3757750.7	0.0	3.00	2.33	2.79	NO	
TVY2T05J	0	0.33200E-07	433985.4	3757745.8	0.0	3.00	2.33	2.79	NO	
TVY2T05K	0	0.33200E-07	433988.3	3757743.4	0.0	3.00	2.33	2.79	NO	
TVY2T05L	0	0.33200E-07	433993.2	3757742.4	0.0	3.00	2.33	2.79	NO	
TVY2T05M	0	0.33200E-07	433998.1	3757741.4	0.0	3.00	2.33	2.79	NO	
TVY2T05N	0	0.33200E-07	434003.0	3757740.4	0.0	3.00	2.33	2.79	NO	
TVY2T05O	0	0.33200E-07	434007.9	3757739.3	0.0	3.00	2.33	2.79	NO	
TVY2T05P	0	0.33200E-07	434012.8	3757738.3	0.0	3.00	2.33	2.79	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	TVY2T000 , TVY2T001 , TVY2T003 , TVY2T004 , TVY2T005 , TVY2T006 , TVY2T007 , TVY2T00I , TVY2T00J , TVY2T00K , TVY2T00L , TVY2T00M , TVY2T00N , TVY2T00O , TVY2T00P , TVY2T00Q , TVY2T00R , TVY2T00S , TVY2T00T , TVY2T00U , TVY2T00V , TVY2T00W , TVY2T00X , TVY2T00Y , TVY2T00Z , TVY2T010 , TVY2T011 , TVY2T012 , TVY2T013 , TVY2T014 , TVY2T015 , TVY2T016 , TVY2T017 , TVY2T018 , TVY2T019 , TVY2T01A , TVY2T01B , TVY2T01C , TVY2T01D , TVY2T01E , TVY2T01F , TVY2T01G , TVY2T01H , TVY2T01I , TVY2T01J , TVY2T01K , TVY2T01L , TVY2T01M , TVY2T01N , TVY2T01O , TVY2T01P , TVY2T01Q , TVY2T01R , TVY2T01S , TVY2T01T , TVY2T01U , TVY2T01V , TVY2T01W , TVY2T01X , TVY2T01Y , TVY2T01Z , TVY2T020 , TVY2T021 , TVY2T022 , TVY2T023 , TVY2T024 , TVY2T025 , TVY2T026 , TVY2T027 , TVY2T028 , TVY2T029 , TVY2T02A , TVY2T02B , TVY2T02C , TVY2T02D , TVY2T02E , TVY2T02F , TVY2T02G , TVY2T02H , TVY2T02I , TVY2T02J , TVY2T02K , TVY2T02L , TVY2T02M , TVY2T02N , TVY2T02O , TVY2T02P , TVY2T02Q , TVY2T02R , TVY2T02S , TVY2T02T , TVY2T02U , TVY2T02V , TVY2T02W , TVY2T02X , TVY2T02Y , TVY2T02Z , TVY2T030 , TVY2T031 , TVY2T032 , TVY2T033 , TVY2T034 , TVY2T035 , TVY2T036 , TVY2T037 , TVY2T038 , TVY2T039 , TVY2T03A , TVY2T03B , TVY2T03C , TVY2T03D , TVY2T03E , TVY2T03F , TVY2T03G , TVY2T03H , TVY2T03I , TVY2T03J , TVY2T03K , TVY2T03L , TVY2T03M , TVY2T03N , TVY2T03O , TVY2T03P , TVY2T03Q , TVY2T03R , TVY2T03S , TVY2T03T , TVY2T03U , TVY2T03V , TVY2T03W , TVY2T03X , TVY2T03Y , TVY2T03Z , TVY2T040 , TVY2T041 , TVY2T042 , TVY2T043 , TVY2T044 , TVY2T045 , TVY2T046 , TVY2T047 , TVY2T048 , TVY2T049 , TVY2T04A ,

TVY2T04B , TVY2T04C , TVY2T04D , TVY2T04E , TVY2T04F , TVY2T04G , TVY2T04H ,
TVY2T04I ,

TVY2T04J , TVY2T04K , TVY2T04L , TVY2T04M , TVY2T04N , TVY2T04O , TVY2T04P ,
TVY2T04Q ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

TVY2T04R , TVY2T04S , TVY2T04T , TVY2T04U , TVY2T04V , TVY2T04W , TVY2T04X ,
TVY2T04Y ,

TVY2T04Z , TVY2T050 , TVY2T051 , TVY2T052 , TVY2T053 , TVY2T054 , TVY2T055 ,
TVY2T056 ,

TVY2T057 , TVY2T058 , TVY2T059 , TVY2T05A , TVY2T05B , TVY2T05C , TVY2T05D ,
TVY2T05E ,

TVY2T05F , TVY2T05G , TVY2T05H , TVY2T05I , TVY2T05J , TVY2T05K , TVY2T05L ,
TVY2T05M ,

TVY2T05N , TVY2T05O , TVY2T05P , TVY2T05Q ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: TVY2T000

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	31.9,	34.8,	-34.5,	-8.1,	2	4.0,	28.1,	34.7,	-32.2,	-10.6,
3	4.0,	23.6,	33.5,	-29.0,	-12.7,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	0.0,	0.0,	0.0,	0.0,	0.0,	8	4.0,	34.0,	36.3,	-15.6,	-18.8,
9	4.0,	34.7,	34.6,	-11.9,	-18.4,	10	4.0,	34.8,	31.9,	-7.8,	-17.1,
11	4.0,	34.7,	28.1,	-3.5,	-14.9,	12	4.0,	33.5,	23.6,	0.9,	-12.2,
13	4.0,	32.1,	21.7,	4.2,	-8.8,	14	4.0,	34.7,	26.1,	3.8,	-6.1,
15	4.0,	36.4,	29.7,	3.2,	-3.3,	16	4.0,	36.9,	32.3,	2.5,	-0.4,
17	4.0,	36.3,	34.0,	1.8,	2.5,	18	4.0,	34.6,	34.7,	1.0,	5.4,
19	4.0,	31.9,	34.8,	-0.3,	8.1,	20	4.0,	28.1,	34.7,	-2.5,	10.6,
21	4.0,	23.6,	33.5,	-4.5,	12.7,	22	0.0,	0.0,	0.0,	0.0,	0.0,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	0.0,	0.0,	0.0,	0.0,	0.0,	26	4.0,	34.0,	36.3,	-20.7,	18.8,
27	4.0,	34.7,	34.6,	-22.7,	18.4,	28	4.0,	34.8,	31.9,	-24.0,	17.1,
29	4.0,	34.7,	28.1,	-24.6,	14.9,	30	4.0,	33.5,	23.6,	-24.5,	12.2,
31	4.0,	32.1,	21.7,	-25.9,	8.8,	32	4.0,	34.7,	26.1,	-29.9,	6.1,
33	4.0,	36.4,	29.7,	-32.9,	3.3,	34	4.0,	36.9,	32.3,	-34.9,	0.4,
35	4.0,	36.3,	34.0,	-35.8,	-2.5,	36	4.0,	34.6,	34.7,	-35.7,	-5.4,

SOURCE ID: TVY2T001

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ

1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	4.0,	26.1,	34.7,	-2.4,	-12.6,	6	4.0,	29.7,	36.4,	-1.5,	-10.2,
7	4.0,	32.3,	36.9,	-0.5,	-7.5,	8	4.0,	34.0,	36.3,	0.5,	-4.6,
9	4.0,	34.7,	34.6,	1.5,	-1.6,	10	4.0,	34.8,	31.9,	2.4,	1.8,
11	4.0,	34.7,	28.1,	3.3,	5.5,	12	4.0,	33.5,	23.6,	4.1,	9.0,
13	4.0,	32.1,	21.7,	3.7,	12.7,	14	4.0,	34.7,	26.1,	-0.5,	14.9,
15	4.0,	36.4,	29.7,	-4.6,	16.7,	16	4.0,	36.9,	32.3,	-8.7,	17.9,
17	4.0,	36.3,	34.0,	-12.4,	18.7,	18	4.0,	34.6,	34.7,	-15.8,	18.8,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	0.0,	0.0,	0.0,	0.0,	0.0,	22	0.0,	0.0,	0.0,	0.0,	0.0,
23	4.0,	26.1,	34.7,	-32.3,	12.6,	24	4.0,	29.7,	36.4,	-34.9,	10.2,
25	4.0,	32.3,	36.9,	-36.4,	7.5,	26	4.0,	34.0,	36.3,	-36.8,	4.6,
27	4.0,	34.7,	34.6,	-36.1,	1.6,	28	4.0,	34.8,	31.9,	-34.3,	-1.8,
29	4.0,	34.7,	28.1,	-31.5,	-5.5,	30	4.0,	33.5,	23.6,	-27.7,	-9.0,
31	4.0,	32.1,	21.7,	-25.4,	-12.7,	32	4.0,	34.7,	26.1,	-25.6,	-14.9,
33	4.0,	36.4,	29.7,	-25.0,	-16.7,	34	4.0,	36.9,	32.3,	-23.7,	-17.9,
35	4.0,	36.3,	34.0,	-21.6,	-18.7,	36	4.0,	34.6,	34.7,	-18.9,	-18.8,

SOURCE ID: TVY2T003

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	31.9,	34.8,	-29.4,	-11.4,	2	4.0,	28.1,	34.7,	-26.7,	-12.9,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	4.0,	29.7,	36.4,	-15.8,	-16.3,
7	4.0,	32.3,	36.9,	-13.5,	-16.0,	8	4.0,	34.0,	36.3,	-10.8,	-15.2,
9	4.0,	34.7,	34.6,	-7.8,	-14.0,	10	4.0,	34.8,	31.9,	-4.6,	-12.1,
11	4.0,	34.7,	28.1,	-1.2,	-9.3,	12	4.0,	33.5,	23.6,	2.2,	-6.3,
13	4.0,	32.1,	21.7,	4.6,	-2.8,	14	4.0,	34.7,	26.1,	3.0,	-0.2,
15	4.0,	36.4,	29.7,	1.5,	2.4,	16	4.0,	36.9,	32.3,	-0.2,	5.0,
17	4.0,	36.3,	34.0,	-1.8,	7.3,	18	4.0,	34.6,	34.7,	-3.4,	9.5,
19	4.0,	31.9,	34.8,	-5.3,	11.4,	20	4.0,	28.1,	34.7,	-8.0,	12.9,
21	0.0,	0.0,	0.0,	0.0,	0.0,	22	0.0,	0.0,	0.0,	0.0,	0.0,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	4.0,	29.7,	36.4,	-20.6,	16.3,
25	4.0,	32.3,	36.9,	-23.4,	16.0,	26	4.0,	34.0,	36.3,	-25.5,	15.2,
27	4.0,	34.7,	34.6,	-26.8,	14.0,	28	4.0,	34.8,	31.9,	-27.3,	12.1,
29	4.0,	34.7,	28.1,	-27.0,	9.3,	30	4.0,	33.5,	23.6,	-25.8,	6.3,
31	4.0,	32.1,	21.7,	-26.2,	2.8,	32	4.0,	34.7,	26.1,	-29.1,	0.2,
33	4.0,	36.4,	29.7,	-31.1,	-2.4,	34	4.0,	36.9,	32.3,	-32.1,	-5.0,
35	4.0,	36.3,	34.0,	-32.2,	-7.3,	36	4.0,	34.6,	34.7,	-31.3,	-9.5,

SOURCE ID: TVY2T004

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	31.9,	34.8,	-22.4,	-15.0,	2	4.0,	28.1,	34.7,	-19.1,	-15.2,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	4.0,	26.1,	34.7,	-9.8,	-14.4,	6	4.0,	29.7,	36.4,	-8.5,	-13.2,
7	4.0,	32.3,	36.9,	-6.8,	-11.7,	8	4.0,	34.0,	36.3,	-5.0,	-9.8,
9	4.0,	34.7,	34.6,	-3.0,	-7.6,	10	4.0,	34.8,	31.9,	-0.9,	-5.0,
11	4.0,	34.7,	28.1,	1.2,	-1.8,	12	4.0,	33.5,	23.6,	3.2,	1.5,
13	4.0,	32.1,	21.7,	4.2,	5.1,	14	4.0,	34.7,	26.1,	1.3,	7.5,
15	4.0,	36.4,	29.7,	-1.6,	9.7,	16	4.0,	36.9,	32.3,	-4.5,	11.6,
17	4.0,	36.3,	34.0,	-7.2,	13.2,	18	4.0,	34.6,	34.7,	-9.7,	14.3,
19	4.0,	31.9,	34.8,	-12.4,	15.0,	20	4.0,	28.1,	34.7,	-15.6,	15.2,
21	0.0,	0.0,	0.0,	0.0,	0.0,	22	0.0,	0.0,	0.0,	0.0,	0.0,
23	4.0,	26.1,	34.7,	-24.9,	14.4,	24	4.0,	29.7,	36.4,	-27.9,	13.2,
25	4.0,	32.3,	36.9,	-30.1,	11.7,	26	4.0,	34.0,	36.3,	-31.3,	9.8,
27	4.0,	34.7,	34.6,	-31.6,	7.6,	28	4.0,	34.8,	31.9,	-30.9,	5.0,
29	4.0,	34.7,	28.1,	-29.3,	1.8,	30	4.0,	33.5,	23.6,	-26.8,	-1.5,
31	4.0,	32.1,	21.7,	-25.9,	-5.1,	32	4.0,	34.7,	26.1,	-27.4,	-7.5,
33	4.0,	36.4,	29.7,	-28.1,	-9.7,	34	4.0,	36.9,	32.3,	-27.9,	-11.6,
35	4.0,	36.3,	34.0,	-26.8,	-13.2,	36	4.0,	34.6,	34.7,	-25.0,	-14.3,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: TVY2T005

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	43.7,	41.3,	-44.5,	-2.4,	2	4.0,	46.6,	47.7,	-46.8,	-4.9,
3	4.0,	49.0,	53.2,	-48.0,	-7.5,	4	4.0,	49.9,	57.1,	-47.9,	-9.9,
5	4.0,	49.4,	59.3,	-46.2,	-12.0,	6	4.0,	47.3,	59.6,	-43.2,	-13.7,
7	4.0,	43.8,	58.2,	-38.9,	-15.0,	8	4.0,	41.2,	55.0,	-33.3,	-17.0,
9	4.0,	41.9,	50.1,	-26.8,	-20.8,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	4.0,	47.7,	46.6,	-18.4,	-22.9,	12	4.0,	53.2,	49.0,	-17.0,	-21.4,
13	4.0,	57.1,	49.9,	-15.1,	-19.3,	14	4.0,	59.3,	49.4,	-12.7,	-16.6,
15	4.0,	59.6,	47.3,	-9.9,	-13.4,	16	4.0,	58.2,	43.8,	-6.9,	-9.8,
17	4.0,	55.0,	41.2,	-3.6,	-5.8,	18	4.0,	50.1,	41.9,	-0.2,	-1.8,
19	4.0,	43.7,	41.3,	3.2,	2.4,	20	4.0,	46.6,	47.7,	-0.9,	4.9,
21	4.0,	49.0,	53.2,	-5.1,	7.5,	22	4.0,	49.9,	57.1,	-9.2,	9.9,
23	4.0,	49.4,	59.3,	-13.0,	12.0,	24	4.0,	47.3,	59.6,	-16.4,	13.7,
25	4.0,	43.8,	58.2,	-19.3,	15.0,	26	4.0,	41.2,	55.0,	-21.6,	17.0,
27	4.0,	41.9,	50.1,	-23.3,	20.8,	28	0.0,	0.0,	0.0,	0.0,	0.0,
29	4.0,	47.7,	46.6,	-28.2,	22.9,	30	4.0,	53.2,	49.0,	-32.0,	21.4,
31	4.0,	57.1,	49.9,	-34.9,	19.3,	32	4.0,	59.3,	49.4,	-36.7,	16.6,
33	4.0,	59.6,	47.3,	-37.4,	13.4,	34	4.0,	58.2,	43.8,	-36.9,	9.8,
35	4.0,	55.0,	41.2,	-37.6,	5.8,	36	4.0,	50.1,	41.9,	-41.7,	1.8,

SOURCE ID: TVY2T006

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	43.7,	41.3,	-43.9,	2.6,	2	4.0,	46.6,	47.7,	-47.0,	0.1,
3	4.0,	49.0,	53.2,	-49.1,	-2.6,	4	4.0,	49.9,	57.1,	-49.8,	-5.3,
5	4.0,	49.4,	59.3,	-48.9,	-7.8,	6	4.0,	47.3,	59.6,	-46.6,	-10.0,
7	4.0,	43.8,	58.2,	-42.9,	-12.0,	8	4.0,	41.2,	55.0,	-37.8,	-14.7,
9	4.0,	41.9,	50.1,	-31.6,	-19.2,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	4.0,	47.7,	46.6,	-23.4,	-23.2,	12	4.0,	53.2,	49.0,	-21.9,	-22.5,
13	4.0,	57.1,	49.9,	-19.7,	-21.2,	14	4.0,	59.3,	49.4,	-16.9,	-19.3,
15	4.0,	59.6,	47.3,	-13.6,	-16.8,	16	4.0,	58.2,	43.8,	-9.9,	-13.8,
17	4.0,	55.0,	41.2,	-5.9,	-10.3,	18	4.0,	50.1,	41.9,	-1.7,	-6.5,
19	4.0,	43.7,	41.3,	2.5,	-2.6,	20	4.0,	46.6,	47.7,	-0.7,	-0.1,
21	4.0,	49.0,	53.2,	-4.0,	2.6,	22	4.0,	49.9,	57.1,	-7.3,	5.3,
23	4.0,	49.4,	59.3,	-10.3,	7.8,	24	4.0,	47.3,	59.6,	-13.0,	10.0,
25	4.0,	43.8,	58.2,	-15.3,	12.0,	26	4.0,	41.2,	55.0,	-17.2,	14.7,
27	4.0,	41.9,	50.1,	-18.5,	19.2,	28	0.0,	0.0,	0.0,	0.0,	0.0,
29	4.0,	47.7,	46.6,	-23.2,	23.2,	30	4.0,	53.2,	49.0,	-27.1,	22.5,
31	4.0,	57.1,	49.9,	-30.2,	21.2,	32	4.0,	59.3,	49.4,	-32.4,	19.3,
33	4.0,	59.6,	47.3,	-33.7,	16.8,	34	4.0,	58.2,	43.8,	-33.9,	13.8,
35	4.0,	55.0,	41.2,	-35.3,	10.3,	36	4.0,	50.1,	41.9,	-40.2,	6.5,

SOURCE ID: TVY2T007

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.0,	43.7,	41.3,	-44.1,	7.4,	2	4.0,	46.6,	47.7,	-48.1,	4.8,
3	4.0,	49.0,	53.2,	-51.0,	1.9,	4	4.0,	49.9,	57.1,	-52.4,	-1.2,
5	4.0,	49.4,	59.3,	-52.2,	-4.2,	6	4.0,	47.3,	59.6,	-50.5,	-7.1,
7	4.0,	43.8,	58.2,	-47.2,	-9.8,	8	4.0,	41.2,	55.0,	-42.4,	-13.3,
9	4.0,	41.9,	50.1,	-36.4,	-18.7,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	4.0,	47.7,	46.6,	-28.1,	-24.2,	12	4.0,	53.2,	49.0,	-26.4,	-24.4,
13	4.0,	57.1,	49.9,	-23.8,	-23.9,	14	4.0,	59.3,	49.4,	-20.5,	-22.6,
15	4.0,	59.6,	47.3,	-16.5,	-20.7,	16	4.0,	58.2,	43.8,	-12.1,	-18.1,
17	4.0,	55.0,	41.2,	-7.3,	-14.9,	18	4.0,	50.1,	41.9,	-2.3,	-11.4,
19	4.0,	43.7,	41.3,	2.8,	-7.4,	20	4.0,	46.6,	47.7,	0.4,	-4.8,
21	4.0,	49.0,	53.2,	-2.2,	-1.9,	22	4.0,	49.9,	57.1,	-4.7,	1.2,
23	4.0,	49.4,	59.3,	-7.0,	4.2,	24	4.0,	47.3,	59.6,	-9.2,	7.1,
25	4.0,	43.8,	58.2,	-11.0,	9.8,	26	4.0,	41.2,	55.0,	-12.6,	13.3,
27	4.0,	41.9,	50.1,	-13.7,	18.7,	28	0.0,	0.0,	0.0,	0.0,	0.0,
29	4.0,	47.7,	46.6,	-18.4,	24.2,	30	4.0,	53.2,	49.0,	-22.7,	24.4,
31	4.0,	57.1,	49.9,	-26.2,	23.9,	32	4.0,	59.3,	49.4,	-28.9,	22.6,
33	4.0,	59.6,	47.3,	-30.8,	20.7,	34	4.0,	58.2,	43.8,	-31.7,	18.1,
35	4.0,	55.0,	41.2,	-33.9,	14.9,	36	4.0,	50.1,	41.9,	-39.6,	11.4,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

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

433570.4, 433614.3, 433658.2, 433702.1, 433746.0, 433789.9, 433833.8, 433877.7, 433921.6, 433965.5,
434009.4, 434053.3, 434097.2, 434141.1, 434185.0, 434228.9, 434272.8, 434316.7, 434360.6, 434404.5,
434448.4,

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

3758012.3, 3757977.6, 3757942.9, 3757908.2, 3757873.5, 3757838.8, 3757804.1, 3757769.4, 3757734.7, 3757700.0,
3757665.3, 3757630.6, 3757595.9, 3757561.2, 3757526.5, 3757491.8, 3757457.1, 3757422.4, 3757387.7, 3757353.0,
3757318.3,

*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	433570.40	433614.30	433658.20	433702.10	433746.00	433789.90	433833.80	433877.70	433921.60
3757318.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757353.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757387.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757422.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757457.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757491.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757526.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757561.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757595.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757630.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757665.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3757734.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

0.00 0.00
3757769.40 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757804.10 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757838.80 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757873.50 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757908.20 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757942.90 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3757977.60 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00
3758012.30 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00

*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)						
	433965.50	434009.40	434053.30	434097.20	434141.10	434185.00	434228.90
434272.80	434316.70						
3757318.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757353.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757387.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757422.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757457.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757491.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757526.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757561.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757595.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757630.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757665.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757734.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757769.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757804.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757838.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
3757873.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						

```
  3757908.20 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3757942.90 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3757977.60 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3758012.30 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
```


*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

```
    Y-COORD  |                                        X-COORD (METERS)
    (METERS) |     434360.60    434404.50    434448.40
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3757318.30 |          0.00         0.00         0.00
  3757353.00 |          0.00         0.00         0.00
  3757387.70 |          0.00         0.00         0.00
  3757422.40 |          0.00         0.00         0.00
  3757457.10 |          0.00         0.00         0.00
  3757491.80 |          0.00         0.00         0.00
  3757526.50 |          0.00         0.00         0.00
  3757561.20 |          0.00         0.00         0.00
  3757595.90 |          0.00         0.00         0.00
  3757630.60 |          0.00         0.00         0.00
  3757665.30 |          0.00         0.00         0.00
  3757700.00 |          0.00         0.00         0.00
  3757734.70 |          0.00         0.00         0.00
  3757769.40 |          0.00         0.00         0.00
  3757804.10 |          0.00         0.00         0.00
  3757838.80 |          0.00         0.00         0.00
  3757873.50 |          0.00         0.00         0.00
  3757908.20 |          0.00         0.00         0.00
  3757942.90 |          0.00         0.00         0.00
  3757977.60 |          0.00         0.00         0.00
  3758012.30 |          0.00         0.00         0.00
```


*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

```
    Y-COORD  |                                        X-COORD (METERS)
    (METERS) |     433570.40    433614.30    433658.20    433702.10    433746.00    433789.90    433833.80
433877.70    433921.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3757318.30 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3757353.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3757387.70 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
```

```
0.00          0.00
  3757422.40 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757457.10 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757491.80 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757526.50 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757561.20 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757595.90 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757630.60 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757665.30 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757700.00 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757734.70 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757769.40 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757804.10 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757838.80 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757873.50 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757908.20 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757942.90 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757977.60 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3758012.30 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  ADJ_U*

                                  *** NETWORK ID: TVY2T05R ;  NETWORK TYPE: GRIDCART ***

                                               * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                             X-COORD (METERS)
    (METERS) |     433965.50    434009.40    434053.30    434097.20    434141.10    434185.00    434228.90
434272.80    434316.70
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3757318.30 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757353.00 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757387.70 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757422.40 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757457.10 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757491.80 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
  3757526.50 |         0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00          0.00
```

*** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	434360.60	434404.50	434448.40
3757318.30	0.00	0.00	0.00
3757353.00	0.00	0.00	0.00
3757387.70	0.00	0.00	0.00
3757422.40	0.00	0.00	0.00
3757457.10	0.00	0.00	0.00
3757491.80	0.00	0.00	0.00
3757526.50	0.00	0.00	0.00
3757561.20	0.00	0.00	0.00
3757595.90	0.00	0.00	0.00
3757630.60	0.00	0.00	0.00
3757665.30	0.00	0.00	0.00
3757700.00	0.00	0.00	0.00
3757734.70	0.00	0.00	0.00
3757769.40	0.00	0.00	0.00
3757804.10	0.00	0.00	0.00
3757838.80	0.00	0.00	0.00
3757873.50	0.00	0.00	0.00
3757908.20	0.00	0.00	0.00
3757942.90	0.00	0.00	0.00
3757977.60	0.00	0.00	0.00
3758012.30	0.00	0.00	0.00

* 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)
TVY2T015	433965.5	3757804.1	-2.84
TVY2T016	433965.5	3757804.1	-0.51
TVY2T017	433965.5	3757804.1	0.30
TVY2T01Y	434097.2	3757769.4	0.14
TVY2T02R	434228.9	3757700.0	-1.99
TVY2T02S	434228.9	3757700.0	-2.39
TVY2T03V	434141.1	3757769.4	0.66
TVY2T04D	434053.3	3757804.1	-1.43
TVY2T04E	434053.3	3757804.1	-0.70
TVY2T05O	434009.4	3757734.7	-0.16
TVY2T05P	434009.4	3757734.7	-0.05

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

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METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2016 1 1 1
AND END DATE: 2016 12 31 24

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,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

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

Surface file: G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station 68\071823\AERMOD Met Version: 16216
Profile file: G:\My Drive\City of Chino Hills\22-81 Chino Valley Fire Station 68\071823\AERMOD
Surface format: FREE

Profile format: FREE

Surface station no.: 3179 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

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
12	01	01	1	01	-2.3	0.067	-9.000	-9.000	-999.	41.	11.2	0.09	0.74	1.00	0.73	313.	7.9	279.2	2.0
12	01	01	1	02	-2.7	0.070	-9.000	-9.000	-999.	44.	11.3	0.09	0.74	1.00	0.80	342.	7.9	280.9	2.0
12	01	01	1	03	-5.6	0.098	-9.000	-9.000	-999.	73.	14.7	0.09	0.74	1.00	1.20	9.	7.9	281.4	2.0
12	01	01	1	04	-3.5	0.078	-9.000	-9.000	-999.	52.	11.9	0.09	0.74	1.00	0.94	21.	7.9	282.0	2.0
12	01	01	1	05	-8.4	0.119	-9.000	-9.000	-999.	99.	18.1	0.09	0.74	1.00	1.45	353.	7.9	279.9	2.0
12	01	01	1	06	-7.6	0.113	-9.000	-9.000	-999.	91.	17.0	0.09	0.74	1.00	1.38	325.	7.9	277.5	2.0
12	01	01	1	07	-8.0	0.117	-9.000	-9.000	-999.	96.	17.7	0.09	0.74	1.00	1.42	313.	7.9	281.4	2.0
12	01	01	1	08	-5.2	0.101	-9.000	-9.000	-999.	77.	17.5	0.09	0.74	0.53	1.23	19.	7.9	280.9	2.0
12	01	01	1	09	23.2	0.117	0.267	0.012	29.	97.	-6.2	0.09	0.74	0.31	0.96	318.	7.9	287.5	2.0
12	01	01	1	10	65.2	0.101	0.531	0.014	82.	77.	-1.4	0.09	0.74	0.24	0.63	244.	7.9	291.4	2.0
12	01	01	1	11	95.5	0.162	0.778	0.008	176.	156.	-4.0	0.09	0.74	0.21	1.23	91.	7.9	296.4	2.0
12	01	01	1	12	110.8	0.197	1.018	0.005	338.	209.	-6.1	0.09	0.74	0.20	1.60	90.	7.9	299.9	2.0
12	01	01	1	13	110.5	0.229	1.184	0.005	534.	262.	-9.6	0.09	0.74	0.20	1.98	92.	7.9	302.0	2.0
12	01	01	1	14	94.6	0.185	1.215	0.005	674.	191.	-5.9	0.09	0.74	0.21	1.50	73.	7.9	303.1	2.0
12	01	01	1	15	68.6	0.187	1.184	0.005	858.	194.	-8.4	0.09	0.74	0.25	1.59	64.	7.9	303.1	2.0
12	01	01	1	16	24.9	0.255	0.862	0.005	911.	308.	-58.8	0.09	0.74	0.34	2.61	92.	7.9	300.4	2.0
12	01	01	1	17	-13.7	0.168	-9.000	-9.000	-999.	168.	31.1	0.09	0.74	0.62	1.98	107.	7.9	295.4	2.0
12	01	01	1	18	-26.7	0.279	-9.000	-9.000	-999.	354.	85.6	0.09	0.74	1.00	3.22	134.	7.9	291.4	2.0
12	01	01	1	19	-8.0	0.118	-9.000	-9.000	-999.	120.	18.2	0.09	0.74	1.00	1.43	37.	7.9	290.4	2.0
12	01	01	1	20	-7.7	0.115	-9.000	-9.000	-999.	94.	17.6	0.09	0.74	1.00	1.40	49.	7.9	287.0	2.0
12	01	01	1	21	-9.7	0.130	-9.000	-9.000	-999.	113.	20.2	0.09	0.74	1.00	1.57	26.	7.9	288.8	2.0
12	01	01	1	22	-4.8	0.090	-9.000	-9.000	-999.	65.	13.6	0.09	0.74	1.00	1.11	56.	7.9	284.9	2.0
12	01	01	1	23	-11.5	0.141	-9.000	-9.000	-999.	127.	21.9	0.09	0.74	1.00	1.69	36.	7.9	282.0	2.0
12	01	01	1	24	-16.9	0.172	-9.000	-9.000	-999.	171.	32.4	0.09	0.74	1.00	2.03	33.	7.9	279.9	2.0

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
***
                                  INCLUDING SOURCE(S):   TVY2T000   , TVY2T001   , TVY2T003   , TVY2T004   ,
TVY2T005   ,
                TVY2T006   , TVY2T007   , TVY2T00I   , TVY2T00J   , TVY2T00K   , TVY2T00L   , TVY2T00M   ,
TVY2T00N   ,
                TVY2T00O   , TVY2T00P   , TVY2T00Q   , TVY2T00R   , TVY2T00S   , TVY2T00T   , TVY2T00U   ,
TVY2T00V   ,
                TVY2T00W   , TVY2T00X   , TVY2T00Y   , TVY2T00Z   , TVY2T010   , TVY2T011   , TVY2T012   ,
. . .   ,

                                  *** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

                                      ** CONC OF PM10   IN MICROGRAMS/M**3   **

    Y-COORD | X-COORD (METERS)
    (METERS) | 433570.40   433614.30   433658.20   433702.10   433746.00   433789.90   433833.80
433877.70   433921.60
 -
- - - - - - - - -

  3757318.30 | 0.00004   0.00004   0.00004   0.00005   0.00005   0.00005   0.00006
0.00006   0.00006
  3757353.00 | 0.00004   0.00004   0.00005   0.00005   0.00005   0.00006   0.00006
0.00007   0.00007
  3757387.70 | 0.00004   0.00005   0.00005   0.00005   0.00006   0.00007   0.00007
0.00008   0.00008
  3757422.40 | 0.00004   0.00005   0.00005   0.00006   0.00007   0.00007   0.00008
0.00009   0.00009
  3757457.10 | 0.00004   0.00005   0.00006   0.00006   0.00007   0.00008   0.00009
0.00010   0.00011
  3757491.80 | 0.00005   0.00005   0.00006   0.00007   0.00008   0.00009   0.00010
0.00011   0.00013
  3757526.50 | 0.00005   0.00005   0.00006   0.00007   0.00009   0.00010   0.00011
0.00013   0.00015
  3757561.20 | 0.00005   0.00006   0.00007   0.00008   0.00009   0.00011   0.00013
0.00015   0.00017
  3757595.90 | 0.00005   0.00006   0.00007   0.00008   0.00010   0.00012   0.00015
0.00018   0.00021
  3757630.60 | 0.00005   0.00006   0.00007   0.00008   0.00010   0.00013   0.00017
0.00021   0.00026
  3757665.30 | 0.00005   0.00006   0.00007   0.00009   0.00011   0.00014   0.00019
0.00025   0.00034
  3757700.00 | 0.00005   0.00006   0.00007   0.00009   0.00011   0.00015   0.00020
0.00030   0.00045
  3757734.70 | 0.00005   0.00006   0.00007   0.00009   0.00011   0.00015   0.00021
0.00033   0.00059
  3757769.40 | 0.00005   0.00006   0.00007   0.00009   0.00011   0.00015   0.00021
0.00034   0.00072
  3757804.10 | 0.00005   0.00006   0.00007   0.00008   0.00010   0.00014   0.00019
0.00031   0.00064
  3757838.80 | 0.00004   0.00005   0.00006   0.00007   0.00009   0.00012   0.00016
0.00024   0.00038
  3757873.50 | 0.00004   0.00005   0.00005   0.00007   0.00008   0.00010   0.00013
0.00017   0.00023

 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):   TVY2T000   , TVY2T001   , TVY2T003   , TVY2T004   ,
TVY2T005   ,
                TVY2T006   , TVY2T007   , TVY2T00I   , TVY2T00J   , TVY2T00K   , TVY2T00L   , TVY2T00M   ,
TVY2T00N   ,
                TVY2T00O   , TVY2T00P   , TVY2T00Q   , TVY2T00R   , TVY2T00S   , TVY2T00T   , TVY2T00U   ,
TVY2T00V   ,
                TVY2T00W   , TVY2T00X   , TVY2T00Y   , TVY2T00Z   , TVY2T010   , TVY2T011   , TVY2T012   ,
. . .   ,

                                  *** NETWORK ID: TVY2T05R ; NETWORK TYPE: GRIDCART ***

                                       ** CONC OF PM10   IN MICROGRAMS/M**3   **

    Y-COORD | X-COORD (METERS)
    (METERS) | 433965.50   434009.40   434053.30   434097.20   434141.10   434185.00   434228.90
434272.80   434316.70
 -
- - - - - - - - -

  3757318.30 | 0.00007   0.00007   0.00007   0.00007   0.00007   0.00006   0.00006
0.00005   0.00005
  3757353.00 | 0.00008   0.00008   0.00008   0.00008   0.00007   0.00007   0.00007
0.00006   0.00006
  3757387.70 | 0.00009   0.00009   0.00009   0.00009   0.00009   0.00008   0.00008
0.00007   0.00006
  3757422.40 | 0.00010   0.00010   0.00010   0.00010   0.00010   0.00009   0.00009
0.00008   0.00007
  3757457.10 | 0.00012   0.00012   0.00012   0.00012   0.00012   0.00011   0.00010
0.00009   0.00008
  3757491.80 | 0.00014   0.00014   0.00014   0.00014   0.00014   0.00013   0.00012
0.00011   0.00009
  3757526.50 | 0.00016   0.00017   0.00017   0.00017   0.00017   0.00016   0.00015
0.00013   0.00011
  3757561.20 | 0.00020   0.00021   0.00022   0.00022   0.00021   0.00021   0.00019
0.00016   0.00013
  3757595.90 | 0.00024   0.00026   0.00027   0.00027   0.00028   0.00027   0.00025
0.00021   0.00016
  3757630.60 | 0.00032   0.00034   0.00035   0.00035   0.00037   0.00039   0.00038
0.00030   0.00021
  3757665.30 | 0.00043   0.00048   0.00047   0.00048   0.00052   0.00059   0.00068
0.00051   0.00029
  3757700.00 | 0.00066   0.00076   0.00067   0.00068   0.00078   0.00101   0.00127
0.00112   0.00041
  3757734.70 | 0.00110   0.00170   0.00120   0.00107   0.00141   0.00168   0.00106
0.00063   0.00039
  3757769.40 | 0.00168   0.00202   0.00172   0.00179   0.00144   0.00091   0.00061
0.00043   0.00032
  3757804.10 | 0.00194   0.00217   0.00161   0.00113   0.00077   0.00056   0.00042
0.00033   0.00026
  3757838.80 | 0.00065   0.00080   0.00072   0.00059   0.00047   0.00038   0.00031
0.00025   0.00021

```
  3757873.50 |       0.00029      0.00034      0.00036      0.00034      0.00031      0.00027      0.00023
0.00020      0.00017
  3757908.20 |       0.00018      0.00020      0.00021      0.00022      0.00021      0.00019      0.00017
0.00016      0.00014
  3757942.90 |       0.00012      0.00013      0.00014      0.00014      0.00015      0.00014      0.00013
0.00012      0.00011
  3757977.60 |       0.00009      0.00010      0.00010      0.00010      0.00011      0.00011      0.00010
0.00010      0.00009
  3758012.30 |       0.00007      0.00008      0.00008      0.00008      0.00008      0.00008      0.00008
0.00008      0.00008
```



```
                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                  INCLUDING SOURCE(S):     TVY2T000    , TVY2T001    , TVY2T003    , TVY2T004    ,
TVY2T005    ,
                TVY2T006    , TVY2T007    , TVY2T00I    , TVY2T00J    , TVY2T00K    , TVY2T00L    , TVY2T00M    ,
TVY2T00N    ,
                TVY2T00O    , TVY2T00P    , TVY2T00Q    , TVY2T00R    , TVY2T00S    , TVY2T00T    , TVY2T00U    ,
TVY2T00V    ,
                TVY2T00W    , TVY2T00X    , TVY2T00Y    , TVY2T00Z    , TVY2T010    , TVY2T011    , TVY2T012    ,
. . .       ,

                               *** NETWORK ID: TVY2T05R ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF PM10     IN MICROGRAMS/M**3                          **

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     434360.60    434404.50    434448.40
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3757318.30 |       0.00005      0.00004      0.00004
  3757353.00 |       0.00005      0.00005      0.00004
  3757387.70 |       0.00006      0.00005      0.00005
  3757422.40 |       0.00006      0.00006      0.00005
  3757457.10 |       0.00007      0.00006      0.00005
  3757491.80 |       0.00008      0.00007      0.00006
  3757526.50 |       0.00009      0.00008      0.00007
  3757561.20 |       0.00011      0.00009      0.00007
  3757595.90 |       0.00013      0.00010      0.00009
  3757630.60 |       0.00015      0.00012      0.00010
  3757665.30 |       0.00020      0.00014      0.00011
  3757700.00 |       0.00024      0.00017      0.00013
  3757734.70 |       0.00025      0.00018      0.00013
  3757769.40 |       0.00023      0.00017      0.00013
  3757804.10 |       0.00020      0.00016      0.00013
  3757838.80 |       0.00017      0.00014      0.00012
  3757873.50 |       0.00015      0.00012      0.00011
  3757908.20 |       0.00012      0.00011      0.00009
  3757942.90 |       0.00010      0.00009      0.00008
  3757977.60 |       0.00009      0.00008      0.00007
  3758012.30 |       0.00007      0.00007      0.00006
```



```
                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
```

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10   IN MICROGRAMS/M**3   **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
434054.90	3757689.70	0.00060	434166.50	3757796.70	0.00070
434026.60	3757831.80	0.00094	433947.10	3757844.60	0.00046
433882.90	3757752.60	0.00037	433882.50	3757690.20	0.00030

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***

** CONC OF PM10   IN MICROGRAMS/M**3   **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00217 AT (434009.40, 3757804.10, 0.00, 0.00, 0.00)	GC TVY2T05R
	2ND HIGHEST VALUE IS	0.00202 AT (434009.40, 3757769.40, 0.00, 0.00, 0.00)	GC TVY2T05R
	3RD HIGHEST VALUE IS	0.00194 AT (433965.50, 3757804.10, 0.00, 0.00, 0.00)	GC TVY2T05R
	4TH HIGHEST VALUE IS	0.00179 AT (434097.20, 3757769.40, 0.00, 0.00, 0.00)	GC TVY2T05R
	5TH HIGHEST VALUE IS	0.00172 AT (434053.30, 3757769.40, 0.00, 0.00, 0.00)	GC TVY2T05R
	6TH HIGHEST VALUE IS	0.00170 AT (434009.40, 3757734.70, 0.00, 0.00, 0.00)	GC TVY2T05R
	7TH HIGHEST VALUE IS	0.00168 AT (434185.00, 3757734.70, 0.00, 0.00, 0.00)	GC TVY2T05R
	8TH HIGHEST VALUE IS	0.00168 AT (433965.50, 3757769.40, 0.00, 0.00, 0.00)	GC TVY2T05R
	9TH HIGHEST VALUE IS	0.00161 AT (434053.30, 3757804.10, 0.00, 0.00, 0.00)	GC TVY2T05R
	10TH HIGHEST VALUE IS	0.00144 AT (434141.10, 3757769.40, 0.00, 0.00, 0.00)	GC TVY2T05R

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

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

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

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

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 1279 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 57 Calm Hours Identified

A Total of 61 Missing Hours Identified (0.69 Percent)

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

******** WARNING MESSAGES ********
ME W186 900 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 900 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

****
*** AERMOD Finishes Successfully ***
****

ATTACHMENT C

Health Risk Calculations (DPM Fire Truck Operations)

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 1

Annual Concentration (μg/m3) **0.0006**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015
Unit Risk Factors
(https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000021	0.00000063	0.00000050	0.00000043	0.00000019	0.00000017
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	6.94358E-09	1.67723E-07	1.17834E-07	2.03918E-07	3.09894E-08	1.03474E-07
per million	0.0069	0.1677	0.1178	0.2039	0.0310	0.1035

Cancer Risk Per Million 9-years	0.293
Cancer Risk Per Million 30-years	0.410
Cancer Risk Per Million 70-years	0.482

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 2 (School)

Annual Concentration (μg/m3) **0.0007**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015
Unit Risk Factors
(https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000024	0.00000073	0.00000058	0.00000050	0.00000023	0.00000019
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	8.10084E-09	1.95677E-07	1.37473E-07	2.37904E-07	3.61543E-08	1.2072E-07
per million	0.0081	0.1957	0.1375	0.2379	0.0362	0.1207

Cancer Risk Per Million 9-years	0.341
Cancer Risk Per Million 30-years	0.478
Cancer Risk Per Million 70-years	0.562

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 3

Annual Concentration (μg/m3) **0.00094**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015
Unit Risk Factors
(https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.00094	0.00094	0.00094	0.00094	0.00094	0.00094
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000033	0.00000098	0.00000078	0.00000067	0.00000030	0.00000026
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	1.08783E-08	2.62766E-07	1.84607E-07	3.19471E-07	4.855E-08	1.62109E-07
per million	0.0109	0.2628	0.1846	0.3195	0.0486	0.1621
Cancer Risk Per Million 9-years	0.458					
Cancer Risk Per Million 30-years	0.642					
Cancer Risk Per Million 70-years	0.755					

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 4

Annual Concentration (μg/m3) **0.00046**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015

Unit Risk Factors (https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.00046	0.00046	0.00046	0.00046	0.00046	0.00046
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000016	0.00000048	0.00000038	0.00000033	0.00000015	0.00000013
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	5.32341E-09	1.28588E-07	9.03397E-08	1.56337E-07	2.37585E-08	7.93302E-08
per million	0.0053	0.1286	0.0903	0.1563	0.0238	0.0793

Cancer Risk Per Million 9-years	0.224
Cancer Risk Per Million 30-years	0.314
Cancer Risk Per Million 70-years	0.370

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 5

Annual Concentration (μg/m3) **0.00037**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015
Unit Risk Factors
(https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.00037	0.00037	0.00037	0.00037	0.00037	0.00037
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000013	0.00000039	0.00000031	0.00000026	0.00000012	0.00000010
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	4.28187E-09	1.03429E-07	7.26645E-08	1.25749E-07	1.91101E-08	6.3809E-08
per million	0.0043	0.1034	0.0727	0.1257	0.0191	0.0638
Cancer Risk Per Million 9-years	0.180					
Cancer Risk Per Million 30-years	0.253					
Cancer Risk Per Million 70-years	0.297					

Air Quality Health Risk Calculations
Chino Hills Fire - Receptor 6

Annual Concentration (μg/m3) **0.0003**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015
Unit Risk Factors
(https://oehha.ca.gov/media/CPFs042909.pdf)

Duration (Years)	70					
Age of Person Exposed (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual)	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Breathing Rate per agegroup BR/BW	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000010	0.00000031	0.00000025	0.00000021	0.00000010	0.00000008
Exposure Duration (years)	70					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	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 for Each Age Group	3.47179E-09	8.38615E-08	5.89172E-08	1.01959E-07	1.54947E-08	5.17371E-08
per million	0.0035	0.0839	0.0589	0.1020	0.0155	0.0517

Cancer Risk Per Million 9-years	0.146
Cancer Risk Per Million 30-years	0.205
Cancer Risk Per Million 70-years	0.241

ATTACHMENT D

Cumulative Project List

AQ Attachment D – AS OF 08-25-2023

LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS

No.	Cumulative Project	Location/Address	Description
1.	Country Club Villas	On Pomona Rincon Road between Wallace Ave and Los Serranos Road	70 DU condominium project *Entitled/To Be Constructed:* Phase 3: 18 DU remaining
2.	Vila Borba	West and east of Butterfield Ranch Road near Pine Avenue	*Entitled:* Tract 16413 19 DU single family *Entitled:* Tract 16414 - 220 DU multifamily units
3.	The Reserve at Chino Hills	Reserve at Chino Hills Apartment Complex	*Entitled/Under Construction:* 42 DU multifamily
4.	The Commons	South of Chino Hills Parkway, east of Ramona Avenue and north of SR-71	533,675 SF existing shopping center *Built/Unoccupied:* 63,300 SF of floor area for Anchor tenant *Entitled/Unbuilt:* 53,500 SF of floor area
5.	Stonefield Development	Northwest of Carbon Canyon Road and east of Fairway Drive	*Entitled:* 28 DU single-family
6.	Morningfield Estates and Loving Savior Master Plan Addendum	South of Morningfield Drive, west of Peyton Drive, north of Chino Hills Parkway, adjacent to San Bernardino County Flood Channel	*Entitled:* 7-Lot Subdivision with semi- custom single-family homes, plus 3 classrooms/71 student addition to the Lutheran School
7.	Coptic Orthodox Church	East side of Peyton Drive, north of the Chino Creek Drainage Channel and south of the Chino Valley Community Church property	*Entitled/Under Construction:* 14,695 SF multi-purpose room, 8,645 SF Sanctuary and 555 SF Bookstore
8.	Buddhist Temple of Chino Hills	Northeast of Chino Hills Parkway and Rustic Drive	*Entitled/Under Construction:* 23,400 SF Buddhist temple expansion

LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS

No.	Cumulative Project	Location/Address	Description
9.	Paradise Ranch (T20286)	Canyon Hills Road, north of Hillcrest Development	*Entitled:* 50 DU Single Family
10.	Rancho Cielito	48.37 acres is generally located north of Los Serranos Boulevard, south of Lakeview Drive and east of Pipeline Avenue	*Entitled:* 354 residential apartment units, consisting of seven (7) two- story and seven (7) three-story residential carriage buildings, ten (10) three-story residential buildings and two (2) clubhouses.
11.	Go Storeit	Southeast of Monte Vista and Chino Hills Parkway	*Entitled/:* 115,740-square foot self-storage facility
12.	Biz Park (formerly Heritage Professional Center)	Pomona Rincon Road (south of The Rincon)	*Entitled:* 141,650 sq. ft. office/retail, 46,000 sq. ft. warehouse – 187,650 sq. ft. of Building
13.	Western Hills Residences	Fairway Drive and Carbon Canyon Road	*Proposed:* 187 DU Multi Family
14.	Shady View	Terminus of Shady View Drive	*Entitled:* 159 DU Single Family
15.	Goltec	Yorba Avenue, adjacent to Los Serranos Golf Course Clubhouse parking lot	*Proposed:* 159 DU Single Family
16.	Prime Carwash	Chino Hills Parkway and Ramona Avenue	*Proposed:* 6,007 sq. ft. car wash
17.	Commercial Building	Pomona Rincon Road	*Proposed:* 8,819 sq. ft. building for tutoring, office, and commercial
18.	Costco Expansion	Peyton Drive within Crossroads Marketplace	*Entitled:* 32 pump gas station relation, and 19,498 sq. ft. building expansion
19.	Canyon Estates	Terminus of Soquel Canyon Parkway	*Proposed:* 165 DU single-family and 163 multi-family