

AIR QUALITY ASSESSMENT

**Cleveland 29 Residential
City of Escondido, CA**

Prepared for:

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LIST OF COMMON ACRONYMS

Air Quality Impact Assessments (AQIA)
Assembly Bill 32 (AB32)
California Air Resource Board (CARB)
California Ambient Air Quality Standards (CAAQS)
California Environmental Quality Act (CEQA)
Carbon Dioxide (CO₂)
Cubic Yards (CY)
Diesel Particulate Matter (DPM)
Environmental Protection Agency (EPA)
EPA Office of Air Quality Planning and Standards (OAQPS)
Hazardous Air Pollutants (HAPs)
Hydrogen Sulfide (H₂S)
International Residential Code (IRC)
Level of Service (LOS)
Low Carbon Fuel Standard (LCFS)
Methane (CH₄)
National Ambient Air Quality Standards (NAAQS)
Nitrous Oxide (N₂O)
Reactive Organic Gas (ROG)
Regional Air Quality Strategy (RAQS)
San Diego Air Basin (SDAB)
San Diego Air Pollution Control District (SDAPCD)
South Coast Air Quality Management District (SCAQMD)
Specific Plan Area (SPA)
State Implementation Plan (SIP)
Toxic Air Contaminants (TACs)
Vehicle Miles Traveled (VMT)

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality Assessment is to determine potential air quality impacts (if any) that may be created by either construction 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 reduce impacts to the extent feasible.

1.2 Project Location

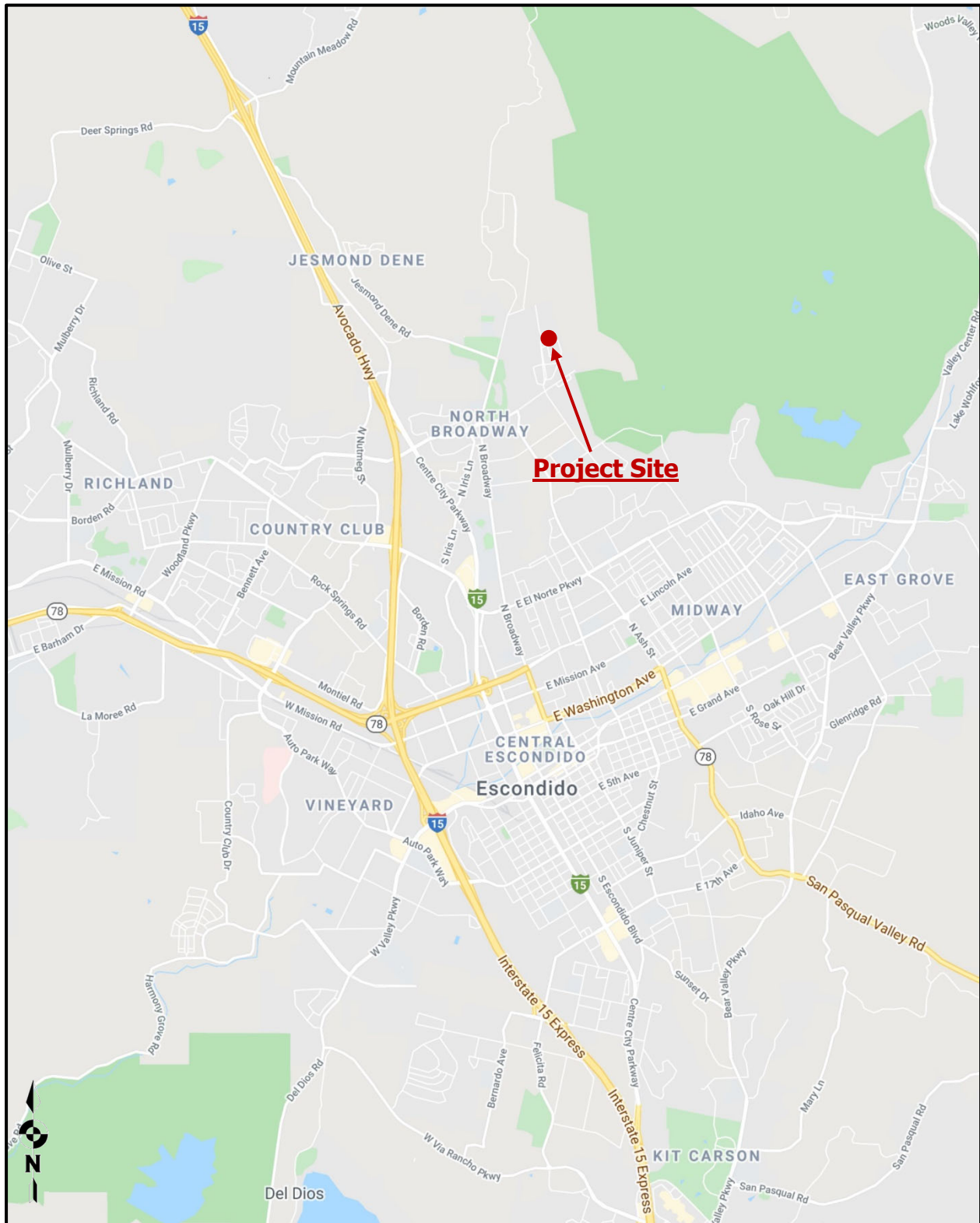
The proposed Cleveland 29 Residential Development (Project) is located on an approximate 10.4-acre project site located east of Interstate 15 at the northeast corner of Cleveland Avenue and Conway Drive in the City of Escondido. A general project vicinity map is shown in Figure 1-A.

1.3 Project Description

The project applicant is requesting approval of a Tentative Map to subdivide a 10.3- acre site into 29 residential lots (Lots 1 through 29), two water quality lots (Lot A and Lot B), a utility lot (Lot C) and a public street lot (Lot D). The residential lots would range in size from 5,760 square feet (s.f.) to 19,089 s.f. with an average residential lot size of 11,425 s.f. Under the maximum permitted density, the project would be allowed to construct up to 21 units. A density bonus is requested to allow for a total of 29 units. The project's proposed density would be consistent with State Density Bonus law.

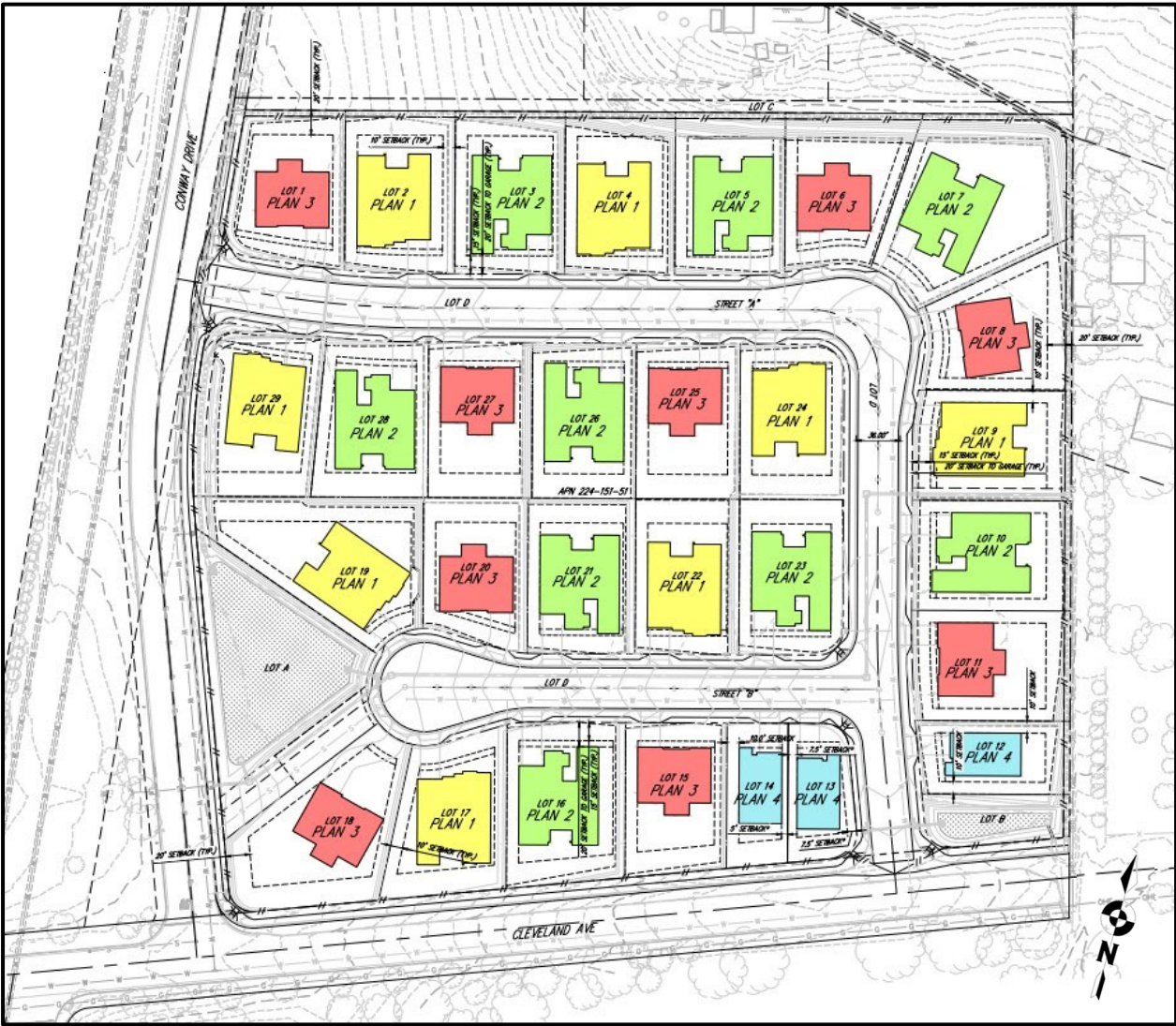
It is expected that the Project would begin work sometime early 2026 and be completed early 2027. As a project design feature the Project would utilize Tier 4 construction equipment. During grading, blasting may be required and if blasting is required, a standalone rock crusher similar to a Terex 4242SR 310 horsepower (HP)+/- will be utilized. The Project has been designed to be consistent with the General Plan and would not require zoning modifications to move forward. The Project site plan is shown in Figure 1-B.

Figure 1-A: Project Vicinity Map



Source: (Google, 2025)

Figure 1-B: Project Site Development Plan



Source: (Kevin L. Crook Architect, Inc., 2025)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The existing site is zoned RE-20 (Residential Estates) and has a land use of E2 (Estate II). The site is currently vacant with no existing structures onsite. No change in designation or zoning are requested. The Project site is surrounded by single family residential.

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heats up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure systems drop to the south and brings cooler, moister weather from the north.

Meteorological trends within the area generally show daytime highs ranging between 64°F in the winter to approximately 88°F in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 37°F in the winter to approximately 59°F in the summer. Precipitation is generally about 16.2 inches per year (WRCC, 2021). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant wind pattern throughout the year usually comes from the west or westerly (WRCC, 2018).

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 (NO₂):** *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, NO₂ is usually visible as a reddish-brown air layer over urban areas. NO₂ 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 NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children (EPA, 2022).*
4. **Particulate Matter (PM₁₀ 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. PM₁₀ 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 (O₃):** *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 the 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 below 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 Fluorescence; Spectrophotometry (Pararosaniline 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	-	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m3		
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 13				
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			
<div>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.</div> <div>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.</div> <div>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.</div> <div>4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.</div> <div>5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.</div> <div>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.</div> <div>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.</div> <div>8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>12. The ARB 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.</div> <div>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.</div> <div>14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.</div> <div>Source: (California Air Resources Board, 05/04/2016)</div>						

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 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 and many areas are in non-attainment for PM₁₀ as well. California, therefore, created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within the County. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on VOCs and NO_x. Currently, San Diego is in “non-attainment” status for federal and state O₃ and state PM₁₀ and PM_{2.5}. An attainment plan is available for O₃. The RAQS was adopted in 1992 and has been updated as recently as 2022 which was the latest update incorporating minor changes to the prior 2016 update.

The 2022 update mostly summarizes how the 2016 update has lowered NO_x and VOCs emissions which reduces ozone and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NO_x reduction measures. NO_x and VOCs are precursors to the formation of ozone in the atmosphere. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status for criteria pollutants with respect to both federal and state nonattainment status by pollutants for the County is shown in Table 2.2 on the following page (SDAPCD, 2023).

The RAQS is largely based on population predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than projected by SANDAG may create a significant impact if the project produces unmitigable air quality emissions or if the project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment***
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified
<p>* The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.</p> <p>** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.</p> <p>***The California Air Resources Board (CARB) has not reclassified the region to attainment yet due to (1) incomplete data, and (2) the use of non-California Approved Samplers (CAS). While data collected does meet the requirements for designation of attainment with federal PM2.5 standards, the data completeness requirements for state PM2.5 standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. APCD has begun replacing most regional filter-based PM2.5 monitors as they reach the end of their useful life with continuous PM2.5 air monitors to ensure collected data meets stringent completeness requirements in the future. APCD anticipates these new monitors will be approved as "CAS" monitors once CARB review the list of approved monitors, which has not been updated since 2013.</p> <p>(SDAPCD, 2023)</p>		

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 Appendix G of the CEQA guidelines and are as follows:

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 Regional Air Quality Strategy (RAQS) 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 (PM₁₀, PM_{2.5} or exceed quantitative thresholds for O₃ precursors, oxides of nitrogen [NO_x] and Volatile Organic Compounds [VOCs])?

- 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 emission (such as those leading to odors) adversely affecting a substantial number of people?

2.5 Escondido Municipal Code (Section 33-924 Coordination of CEQA, Quality of Life Standards)

The City of Escondido has established thresholds in Section 33-924 of Article 47 in Chapter 33 of the Municipal Code to address and implement CEQA guidelines and should be used for the preparation of Air Quality Impact Assessments (AQIA). The Code provides screening criteria that can be used to demonstrate that a Project's total emissions would not result in a significant impact as defined by CEQA. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the Project's total air quality impacts are below the state and federal ambient air quality standards. The screening thresholds for construction and daily operations are shown in Table 2.3.

Table 2.3: Screening Threshold for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Air Quality Emissions Screening Levels	
Respirable Particulate Matter (PM ₁₀)	100
Respirable Particulate Matter (PM _{2.5})	55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs) (Operations)	55
Volatile Organic Compounds (VOCs) (Construction)	75
Source: (City of Escondido Municiple Code)	

Non-Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk to between 1 and 10 in one million need 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. At no time shall the project increase the cancer risk to over 10 in one million. In addition, a project shall not generate either a chronic or acute health hazard index greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

2.5 SDAPCD Rule 55

Project shall be consistent with Rule 55 (SDAPCD, 2009), which outlines specific standards for fugitive dust on construction sites. This includes maintaining stabilization of disturbed areas, controlling track-out, and preventing visible dust emissions from exceeding opacity standards. The standards are as follows:

1. No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period.
2. Track-Out/Carry-Out: Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:
 - a. be minimized by the use of any of the following or equally effective trackout/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and
 - b. be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM10-efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting data. The District operates 10 monitoring sites, which collect data on criteria pollutants. Table 2.4 identifies the criteria pollutants monitored at the aforementioned station.

SDAPCD published the five-year air quality summary for all of the monitoring stations within the San Diego basin (SDAPCD, 2025). The proposed Project is closest to the Camp Pendleton and Carmel Mountain Ranch Monitoring stations. Table 2.4 identifies the criteria pollutants monitored at the aforementioned stations.

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

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2022	2023	Days Exceeded over 2 years
O ₃ (ppm)	Camp Pendleton or Carmel Mountain Ranch	1 Hour	0.09 ppm	No Standard	0.08	0.08	0
		8 Hour	0.070 ppm	0.070 ppm	0.07	0.08	1
PM ₁₀ (µg/m3)		24 Hour	50 µg/m3	150 µg/m3	-	44.0	
		Annual Arithmetic Mean	20 µg/m3	No Standard	-	19.2	
PM _{2.5} (µg/m ³)		24 Hour	No standard -	35 µg/m3	-	26.5	N/A
		Annual Arithmetic Mean	12 µg/m3	15 µg/m3	-	7.9	N/A
NO ₂ (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.005	0.005	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.050	0.063	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	2.2	1.6	N/A
		8 Hour	9 ppm	9 ppm	1.2	1.1	N/A

Notes:
1. - Yearly maximums marked with "-" indicated data was not available for either monitoring station.
2. * Data was selected from the Carmel Mountain Ranch station which began in 2019. All other data presented was collected at the Camp Pendleton Monitoring Station.
3. SO₂ is only monitored at the El Cajon Monitoring Station. Within the entire County of San Diego, SO₂ emissions within the County are essentially Zero for all metrics including the Average, Maximum 24 hour and 1- hour standards. The Highest 1-hr measurement identified is 0.004 ppm and the most restrictive standard (CAAQS for SO₂) is 0.25 ppm.
Source: (SDAPCD, 2025)

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the CalEEMod air quality model (Version 2022.1), which was developed by South Coast Air Quality Management District (SCAQMD). The CalEEMod input/output model is shown in **Attachment A** to this report.

The AERSCREEN dispersion model will be used to determine the concentration of air pollutants at any location near the pollutant generator. Additionally, the model identifies the maximum exposure distance and concentrations. The notable toxic air contaminant from construction is diesel exhaust since exposure to diesel exhaust is known to cause cancer and acute and chronic health effects. Diesel exhaust emissions can be estimated using the annual PM10 exhaust emissions from onsite construction operations obtained from the annual CalEEMod model output by summing each onsite source for the construction duration. The AERSCREEN input/output files for the proposed Project are shown in Attachment B of this report.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015).

Equation 1

$$Dose_{air} = C_{air} * (BR/BW) * A * EF * (1 \times 10^{-6})$$

Dose _{air}	=	Dose through inhalation (mg/kg/d)
C _{air}	=	Concentration in air (µg/m ³) Annual average DPM concentration in µg/m ³ - AERSCREEN predicts a 1-hr concentration and is corrected to an annual average by multiplying the 1-hr average by 0.08 (US EPA, 1992)
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10 ⁻⁶	=	Milligrams to micrograms conversion (10 ⁻³ mg/ µg), cubic meters to liters conversion (10 ⁻³ m ³ /l)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure

duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors within the Project models are provided in **Attachment C** to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015).

Equation 2 $RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$

RISK _{inh-res}	=	Residential inhalation cancer risk
DOSE _{air}	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor (mg/kg-day ⁻¹)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

The Office of Environmental Health Hazard Assessment (OEHHA) recommends that an exposure duration (residency time) of 30 years be used to estimate long-term individual cancer risk for the Maximally Exposed Individual Resident (MEIR). Long-term would be when a receptor is exposed to a source which continues over the total duration. Cancer risks from short-term exposures, such as those during construction, would also be calculated using the duration of exposure.

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, 2015). Diesel Exhaust has a REL of 5 µg/m³ and targets the respiratory system.

3.2 Construction Assumptions

CalEEMod Version 2022.1 was utilized for all construction emissions calculations for the proposed Project. The Project construction dates assumed default settings within the software and are shown in Table 3.1 below. Proposed grading includes approximately 18,160 CY of cut and 21,930 CY of fill for an import of 1,480 CY of materials. In addition, the Project also may require some blasting-related activities. Finally, Tier 4 equipment is assumed. The rock crusher assumed to be used during blasting would be similar to the Terex 4242SR 310 HP unit and is further specified in **Attachment D** to this report. Finally, it should be noted that the start of construction could occur at a later date than projected here. Since technologies for construction equipment are continuously improving pushing the start data into the future

would generally predict lower air quality emissions. Given this, the estimated emissions in this report for construction is worst-case.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	1/1/2026	1/14/2026	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	1/15/2026	2/11/2026	
Excavators			1
Tractors/Loaders/Backhoes			3
Rubber Tired Dozers			1
Graders			1
Bore/Drill Rigs			1
Crushing/Proc. Equipment			1
Building Construction	2/12/2026	12/30/2026	
Forklifts			3
Generator Sets			1
Cranes			1
Welders			1
Tractors/Loaders/Backhoes			3
Paving	12/31/2026	1/27/2027	
Pavers			2
Paving Equipment			2
Rollers			2
Architectural Coating	12/1/2026	12/30/2026	
Air Compressors			1
This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions provided by the project applicant.			

The Project is assumed to require some blasting and crushing during the earthwork/grading of the Project site which will require a permit. During blasting operations, grading operations would temporarily stop and resume once blasting is completed. Per conversations with the project Civil Engineer, it is expected that each blast, limited to once a day, would also be limited to six tons of ammonium nitrate for any given blast operation. The area for each blast would be limited to 20,000 SF or (100-foot x 200-foot) area.

Blasting operations usually require a chemical material that is capable of extremely rapid combustion resulting in an explosion or detonation. These materials are usually mixtures of

several ingredients but are often oxygen deficient as combustion reactions take place which causes a formation of carbon monoxide and to a lesser extent, nitrogen oxides. For ammonium nitrate and fuel oil (ANFO) mixtures it is expected that carbon monoxide would be generated in quantities of 67 pounds (lbs) per every ton of explosives and nitrogen oxides would be generated at 17 lbs per the same quantity as indicate in Table 13.3-1 of the EPA's AP-42: Compilation of Air Emissions Factors from Stationary Sources (EPA, 1980). Particulate matter will also be generated from blasting and can be estimated using Table 11.9-1 of the aforementioned document (EPA, 1998) using the following equation:

$$PM_{10}(lb/Blast) = 0.000014 * (BlastArea(ft^2)) * 0.52$$

3.3 Operational Emissions

Once construction is completed the proposed Project would generate emissions from daily operations which would include sources such as Area, Energy and Mobile uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas and electrical use. Mobile uses are from the expected Project traffic trip generations which was assumed as default within the modeling which is roughly 10 trips per single family unit. Finally, since the Project would not be installing hearth options, CalEEMod default hearth settings were modified to represent no hearth options. The operational model results are also shown in **Attachment A** at the end of this report.

3.4 Odor Impacts

Potential onsite construction odor generators would include short term construction odors from activities such as paving and possibly painting. Odors created from paving would include asphalt laying, which has a slight odor from the bitumen and solvents used within hot asphalt. Impacts associated with asphalt laying activities would be short term as shown in Table 3.1 above and are expected to be less than significant.

Typical sources of odor generation include land uses such as wastewater treatment plants, rendering facilities, and similar type industrial or commercial operations. In contrast, the operational activities associated with a residential use do not fall into any of these odor-generating categories. Therefore, the Project is not expected to generate offensive odors, and any odor impact would generally be less than significant.

4.0 FINDINGS

4.1 Construction Findings

Construction emissions in pounds per day from the construction activities and equipment identified in Section 3.2 above is shown in Table 4.1. Based on these numbers, construction emissions for the proposed Project would not exceed City standards and would not require mitigation. It should be noted that, as a design feature, the proposed Project construction team will utilize Tier 4 diesel construction equipment. Modeling assumes Tier 4 diesel equipment so the use of this equipment will be a condition to this Project's approval with the City of Escondido.

Table 4.1: Expected Construction Emissions Summary (Pounds/Day)

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Exhaust)	PM ₁₀ (Dust)	PM ₁₀ (Total)	PM _{2.5} (Exhaust)	PM _{2.5} (Dust)	PM _{2.5} (Total)
2026	16.4	3.5	33.3	0.05	0.11	19.8	19.9	0.11	10.1	10.2
2026 Blasting Emissions calculations shown in text above		102	402		20.59		20.59			
2026 Total	16.4	105.5	435.3	0.05	20.7	19.8	40.49	0.11	10.1	10.2
2027	0.21	1.98	11.1	0.01	0.03	0.13	0.15	0.03	0.03	0.06
Screening Level Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
Percent lower than Threshold (%)	78%	58%	21%	100%			60%			81%
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

4.2 Health Risk

Based upon the air quality modeling, worst-case onsite PM₁₀ from onsite construction exhaust would cumulatively produce 0.00686 tons over the construction duration (391-calendar days) or an average of 1.84×10^{-4} grams/second. Utilizing the AERSCREEN dispersion model, the worst-case annual concentration of 0.0176 µg/m³ would be expected during construction. Therefore, utilizing the risk equation identified above in Section 3.1, the inhalation cancer risk is 3.34 per million over the construction duration. This risk would be expressed at the point

of maximum exposure 125 meters away (410 feet) as predicted by AERSCREEN and shown in the model outputs provided within Attachment B. As a condition of project approval, the project would be required to utilize Tier 4 diesel equipment and will be a condition to this Project's approval. Since the threshold is 10 per million exposed with T-BACT installed, the project would have a less than significant impact and would be in compliance with the City's thresholds. Again, all modeling assumes Tier 4 diesel equipment is utilized so Tier 4 diesel equipment will be a condition of approval for the Project.

The maximum modeled risk was found to be 3.34 per million exposed at a distance of 410 feet from the Project site. The cancer risk was found to decrease at distances either less than or greater than 410 feet, including at the closest sensitive receptor which is less than 100 feet from the eastern property line. Therefore, all sensitive receptors would have cancer risks at or less than 3.34 per million exposed (and the threshold is 10 per million), which would result in a less than significant impact.

There are known chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on methods identified in Section 3.1 of this report. From this, we find that the hourly concentration of $0.176 \mu\text{g}/\text{m}^3$ divided by the REL of $5 \mu\text{g}/\text{m}^3$ yields a Health Hazard Index of 0.035 which is less than one. Therefore, based on thresholds for non-cancer risks in Section 3.1 above, non-cancer health risks are considered less than significant.

4.3 Operational Findings

The proposed Project operations are expected after buildout sometime in 2027. The expected daily pollutant generation is calculated in CalEEMod 2022.1 and is shown for the summer and winter scenarios in Table 4.2 on the following page. Based on these results, proposed Project operations would have a less than significant impact.

Table 4.2: Daily Pollutant Generation (lb/day)

	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Summer Scenario						
Mobile	1.09	0.78	8.33	0.02	1.86	0.48
Area	1.45	0.02	1.65	< 0.005	< 0.005	< 0.005
Energy	0.01	0.21	0.09	< 0.005	0.02	0.02
Total (Lb/Day)	2.56	1	10.1	0.02	1.88	0.50
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Winter Scenario						
Mobile	1.07	0.86	7.81	0.02	1.86	0.48
Area	1.31	0	0	0	0	0
Energy	0.01	0.21	0.09	< 0.005	0.02	0.02
Total (Lb/Day)	2.39	1.06	7.9	0.02	1.88	0.50
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod. Outputs from CalEEMod include rounding and may not add up exactly						

4.4 Cumulative Impacts

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 were to produce air quality emissions simultaneously to a nearby construction project the addition of both project emissions to the environment could exceed significance thresholds. If an adjacent or nearby project, typically located within 1,000 feet, were under construction at the same time, the combined emissions from both projects could be cumulatively significant if the increase would cause the total emissions to exceed the thresholds. As the distance between cumulative projects increases, construction emissions disperse into the surrounding atmosphere and rapidly dilute, resulting in lower concentrations that do not alter ambient air quality levels.

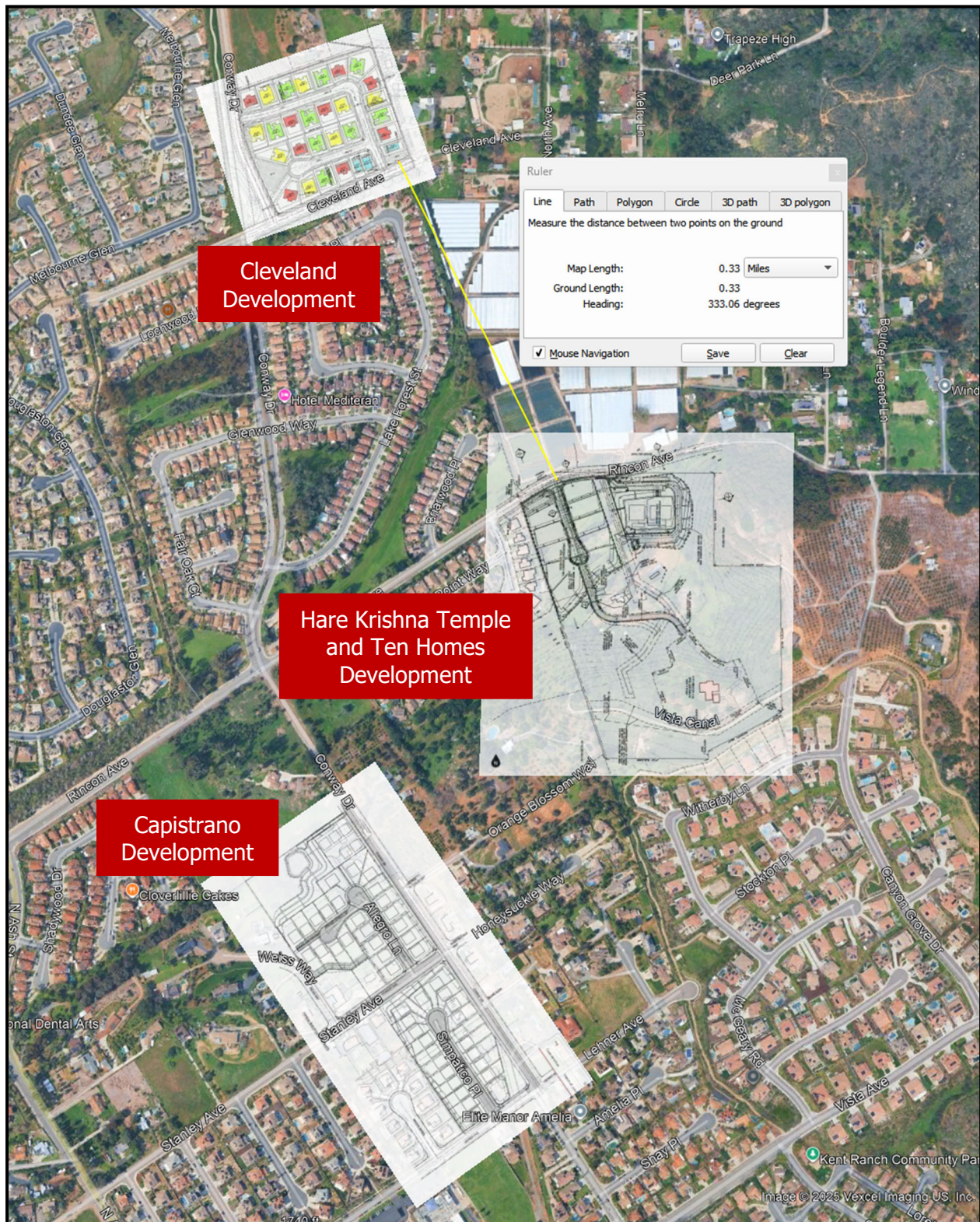
The closest development project is the Hare Krishna temple proposed on Rincon Avenue, east of Conway Drive, approximately 1,700 feet from the Project or a quarter mile from the Project site. The next closest site is the Capistrano development located at the intersection of Stanley Avenue and Conway Drive. This development is located over 2,800 feet away or just over a half mile away. Given this, since the nearest development is greater than 1,000 feet away, cumulative air quality impacts with the two nearby developments and the proposed Project

are not expected. Figure 4-A. on the following page shows the Project in relation to the nearby construction projects.

In addition, it should be noted that after reviewing the expected emissions as identified in Table 4.1 above, the Project emissions are approximately 21 percent for CO and nearly 100 percent lower for SO₂ when compared to the City's significance thresholds. Without blasting CO emissions would be 99.4 percent lower than allowable thresholds. Because the closest nearby construction project is at least one third of mile away, no incremental increase in air quality emissions is expected. Given this, a less than significant cumulative construction impact would be expected.

Furthermore, as stated in the project description, the Project proposes the development of 29 single family residential units which is allowed using a State density bonus. The project does not require a change in designation or zoning and is consistent with the General Plan with the density bonus. Given this and since the Project would have a less than significant direct air quality impact for both construction and operations, a significant cumulative impact would not be expected. In addition, based on these findings, the project would also be consistent with RAQS and SIP.

Figure 4-A: Separation Distance Nearby Development and Proposed Project



4.5 Conclusion of Findings

During construction of the proposed Project, fugitive dust emissions will be expected during grading operations including blasting and crushing, from heavy equipment usage, and from construction workers commuting to and from the site. However, these would not be at a significant level. During short-term construction activities, the proposed Project will generate less than significant impacts based on thresholds established by the City of Escondido and will NOT require mitigation. Also, based on the Project size, emissions, and relative location to nearby cumulative projects, the proposed Project would generate less than significant cumulative construction impacts.

Additionally, emissions from the operation of the proposed Project, including Project generated traffic, would not exceed significance thresholds established by the City of Escondido, and therefore will generate less than significant air quality impacts under CEQA.

The project site has a General Plan designation of E2 (Estate II) and a zoning designation of R-20 (Residential Estates) in addition, the Project will utilize the State's density bonus. Given this, the Project remains consistent with the General Plan and would not conflict with either RAQS or SIP.

A screening-level construction health risk assessment was conducted to determine the potential for the proposed Project to result in a significant impact on nearby sensitive receptors during short-term construction activities. The result of the health risk assessment indicates that the proposed Project would increase diesel particulates to a maximum risk level of 3.34 per one million which would not exceed the 10 in one million cancer risk threshold. Given this, no impacts would be expected. The project will utilize Tier 4 equipment which is considered BACT which will minimize health risks to a level considered lowest achievable at all residential receptors surrounding the Project site. As noted, this Since the Tier 4 equipment is assumed as part of this Project design and was modeled as such, the City will condition the project to use Tier 4 equipment.

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ATTACHMENT A

CalEEMod 2022.1

Cleveland 29 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Cleveland 29
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	6.20
Location	Conway Dr & Cleveland Ave, Escondido, CA 92026, USA
County	San Diego
City	Escondido
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6116
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	29.0	Dwelling Unit	9.42	56,550	339,673	—	81.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.27	2.16	14.8	0.02	0.04	0.11	0.15	0.04	0.03	0.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	16.4	4.37	33.6	0.06	0.12	19.8	19.9	0.12	10.1	10.2
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.19	1.72	12.0	0.02	0.04	1.02	1.06	0.04	0.49	0.52
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22	0.31	2.19	< 0.005	0.01	0.19	0.19	0.01	0.09	0.10

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2026	0.27	2.16	14.8	0.02	0.04	0.11	0.15	0.04	0.03	0.07
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2026	16.4	4.37	33.6	0.06	0.12	19.8	19.9	0.12	10.1	10.2
2027	0.21	1.98	11.1	0.01	0.03	0.13	0.15	0.03	0.03	0.06

Average Daily	—	—	—	—	—	—	—	—	—	—
2026	1.19	1.72	12.0	0.02	0.04	1.02	1.06	0.04	0.49	0.52
2027	0.01	0.10	0.59	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
2026	0.22	0.31	2.19	< 0.005	0.01	0.19	0.19	0.01	0.09	0.10
2027	< 0.005	0.02	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	2.56	1.00	10.1	0.02	0.03	1.84	1.88	0.03	0.47	0.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	2.39	1.06	7.90	0.02	0.03	1.84	1.88	0.03	0.47	0.50
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	2.43	1.04	8.54	0.02	0.03	1.80	1.83	0.03	0.46	0.49
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	0.19	1.56	< 0.005	0.01	0.33	0.33	0.01	0.08	0.09

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	1.09	0.78	8.33	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Area	1.45	0.02	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

Energy	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	2.56	1.00	10.1	0.02	0.03	1.84	1.88	0.03	0.47	0.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	1.07	0.86	7.81	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Area	1.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Energy	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	2.39	1.06	7.90	0.02	0.03	1.84	1.88	0.03	0.47	0.50
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	1.04	0.83	7.64	0.02	0.02	1.80	1.81	0.01	0.46	0.47
Area	1.38	0.01	0.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	2.43	1.04	8.54	0.02	0.03	1.80	1.83	0.03	0.46	0.49
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.15	1.39	< 0.005	< 0.005	0.33	0.33	< 0.005	0.08	0.09
Area	0.25	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—

Total	0.44	0.19	1.56	< 0.005	0.01	0.33	0.33	0.01	0.08	0.09
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3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.54	0.54	—	0.28	0.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.10	0.10	—	0.05	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.67	0.00	0.00	0.15	0.15	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	3.44	32.6	0.05	0.11	—	0.11	0.11	—	0.11
Dust From Material Movement	—	—	—	—	—	7.09	7.09	—	3.43	3.43
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.19	1.78	< 0.005	0.01	—	0.01	0.01	—	0.01
Dust From Material Movement	—	—	—	—	—	0.39	0.39	—	0.19	0.19
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.03	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.03	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.87	0.33	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.03	14.3	0.02	0.04	—	0.04	0.04	—	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.28	9.01	0.01	0.03	—	0.03	0.03	—	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	1.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.45	0.00	0.00	0.09	0.09	0.00	0.02	0.02
Vendor	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.40	0.00	0.00	0.09	0.09	0.00	0.02	0.02

Vendor	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	16.1	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.97	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.18	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.09	0.78	8.33	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Total	1.09	0.78	8.33	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.07	0.86	7.81	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Total	1.07	0.86	7.81	0.02	0.02	1.84	1.86	0.01	0.47	0.48
Annual	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.19	0.15	1.39	< 0.005	< 0.005	0.33	0.33	< 0.005	0.08	0.09
Total	0.19	0.15	1.39	< 0.005	< 0.005	0.33	0.33	< 0.005	0.08	0.09

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02

Total	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Total	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02
Annual	—	—	—	—	—	—	—	—	—	—
Single Family Housing	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	1.21	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.14	0.02	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	1.45	0.02	1.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	1.21	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—
Total	1.31	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	0.22	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	0.25	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2026	1/14/2026	5.00	10.0	—
Grading	Grading	1/15/2026	2/11/2026	5.00	20.0	—
Building Construction	Building Construction	2/12/2026	12/30/2026	5.00	230	—
Paving	Paving	12/31/2026	1/27/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	12/1/2026	12/30/2026	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Crushing/Proc. Equipment	Diesel	Tier 4 Final	1.00	8.00	310	0.85
Grading	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	8.00	83.0	0.50
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	9.25	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	10.4	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	3.10	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.09	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	114,514	38,171	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	15.0	0.00	—
Grading	1,480	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.32

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.32	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	589	0.03	< 0.005
2027	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Single Family Housing	274	277	248	98,728	2,583	2,610	2,339	931,529

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	29
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
114513.75	38,171	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	178,097	45.1	0.0330	0.0040	826,991

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,018,859	6,204,158

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	19.2	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	16.8	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	14.0	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	58.3
AQ-PM	10.1
AQ-DPM	13.5
Drinking Water	49.7
Lead Risk Housing	14.7
Pesticides	63.0
Toxic Releases	10.5
Traffic	46.4
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	37.7
Impaired Water Bodies	90.1
Solid Waste	52.9
Sensitive Population	—
Asthma	20.7

Cardio-vascular	36.0
Low Birth Weights	35.0
Socioeconomic Factor Indicators	—
Education	36.9
Housing	11.6
Linguistic	42.1
Poverty	21.3
Unemployment	39.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	72.60361863
Employed	25.29192865
Median HI	71.97484922
Education	—
Bachelor's or higher	59.70742974
High school enrollment	10.76607212
Preschool enrollment	76.37623508
Transportation	—
Auto Access	87.47593995
Active commuting	9.778005903
Social	—
2-parent households	71.76953676
Voting	81.99666367
Neighborhood	—
Alcohol availability	88.41267804

Park access	29.93712306
Retail density	10.6249198
Supermarket access	15.55241884
Tree canopy	61.70922623
Housing	—
Homeownership	84.70422174
Housing habitability	86.97549083
Low-inc homeowner severe housing cost burden	75.54215321
Low-inc renter severe housing cost burden	77.31297318
Uncrowded housing	90.74810728
Health Outcomes	—
Insured adults	57.69280123
Arthritis	43.8
Asthma ER Admissions	82.5
High Blood Pressure	75.3
Cancer (excluding skin)	34.5
Asthma	61.7
Coronary Heart Disease	63.8
Chronic Obstructive Pulmonary Disease	53.7
Diagnosed Diabetes	67.4
Life Expectancy at Birth	55.4
Cognitively Disabled	39.7
Physically Disabled	78.7
Heart Attack ER Admissions	74.3
Mental Health Not Good	58.7
Chronic Kidney Disease	73.0
Obesity	64.9
Pedestrian Injuries	39.4

Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	18.0
Current Smoker	60.5
No Leisure Time for Physical Activity	64.0
Climate Change Exposures	—
Wildfire Risk	59.0
SLR Inundation Area	0.0
Children	71.1
Elderly	42.0
English Speaking	62.5
Foreign-born	25.1
Outdoor Workers	51.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.5
Traffic Density	52.8
Traffic Access	23.0
Other Indices	—
Hardship	37.3
Other Decision Support	—
2016 Voting	82.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	24.0
Healthy Places Index Score for Project Location (b)	62.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	cs
Operations: Hearths	no hearth
Construction: Off-Road Equipment	T4 PDF
Construction: Off-Road Equipment EF	Crusher and bore//drill rig added

ATTACHMENT B

AERSCREEN for PM₁₀ Exhaust

AERSCREEN 21112 / AERMOD 22112

09/07/25
07:54:42

TITLE: CLEAVLAND CONWAY RESIDENTIAL DEVELOPMENT

***** AREA PARAMETERS *****

SOURCE EMISSION RATE: 0.184E-03 g/s 0.146E-02 lb/hr

AREA EMISSION RATE: 0.455E-08 g/(s-m2) 0.361E-07 lb/(hr-m2)

AREA HEIGHT: 3.00 meters 9.84 feet

AREA SOURCE LONG SIDE: 201.17 meters 660.01 feet

AREA SOURCE SHORT SIDE: 201.17 meters 660.01 feet

INITIAL VERTICAL DIMENSION: 1.00 meters 3.28 feet

RURAL OR URBAN: URBAN

POPULATION: 79000

FLAGPOLE RECEPTOR HEIGHT: 1.50 meters 4.92 feet

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

***** BUILDING DOWNWASH PARAMETERS *****

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

***** FLOW SECTOR ANALYSIS *****

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo	SURFACE	1-HR CONC	RADIAL	DIST	TEMPORAL
SECTOR	ROUGHNESS	(ug/m3)	(deg)	(m)	PERIOD
1*	1.000	0.1762	45	125.0	WIN

* = worst case diagonal

***** MAKEMET METEOROLOGY PARAMETERS *****

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban

DOMINANT CLIMATE TYPE: Average Moisture

DOMINANT SEASON: Winter

ALBEDO: 0.35

BOWEN RATIO: 1.50

ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADJUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

10 01 10 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50		

HT	REF	TA	HT
10.0	310.0	2.0	

***** AERSCREEN AUTOMATED DISTANCES *****
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.1313	2525.00	0.3999E-02
25.00	0.1416	2550.00	0.3946E-02
50.01	0.1513	2575.00	0.3895E-02
75.00	0.1602	2600.00	0.3845E-02
100.00	0.1684	2625.00	0.3796E-02
125.00	0.1762	2650.00	0.3748E-02
150.01	0.1517	2675.00	0.3701E-02
174.99	0.1176	2700.00	0.3655E-02
200.00	0.9549E-01	2725.00	0.3611E-02
225.00	0.8104E-01	2749.99	0.3567E-02
250.00	0.7075E-01	2775.00	0.3524E-02
274.99	0.6294E-01	2800.00	0.3483E-02
300.00	0.5673E-01	2825.00	0.3442E-02
325.00	0.5165E-01	2849.99	0.3401E-02
350.00	0.4740E-01	2875.00	0.3362E-02
375.01	0.4376E-01	2900.00	0.3323E-02
400.00	0.4062E-01	2925.00	0.3284E-02
425.00	0.3788E-01	2950.00	0.3247E-02
450.00	0.3544E-01	2975.00	0.3211E-02
475.01	0.3327E-01	3000.00	0.3175E-02
500.00	0.3134E-01	3025.00	0.3140E-02
525.00	0.2958E-01	3050.00	0.3105E-02
550.00	0.2800E-01	3075.00	0.3071E-02
575.01	0.2655E-01	3100.00	0.3038E-02
599.99	0.2523E-01	3125.00	0.3005E-02
625.00	0.2403E-01	3150.00	0.2973E-02
650.00	0.2291E-01	3175.00	0.2941E-02
675.00	0.2188E-01	3200.00	0.2910E-02
699.99	0.2094E-01	3225.00	0.2880E-02
725.00	0.2005E-01	3250.00	0.2850E-02
750.00	0.1924E-01	3275.00	0.2821E-02
775.00	0.1847E-01	3300.00	0.2792E-02
800.01	0.1776E-01	3325.00	0.2764E-02
825.00	0.1709E-01	3350.00	0.2736E-02
850.00	0.1647E-01	3375.00	0.2709E-02
875.00	0.1588E-01	3400.00	0.2682E-02
900.00	0.1533E-01	3425.00	0.2700E-02

924.99	0.1481E-01	3450.00	0.2673E-02
950.00	0.1432E-01	3475.00	0.2647E-02
975.00	0.1386E-01	3500.00	0.2621E-02
1000.00	0.1342E-01	3525.00	0.2595E-02
1024.99	0.1301E-01	3550.00	0.2570E-02
1050.00	0.1262E-01	3575.00	0.2546E-02
1075.00	0.1225E-01	3600.00	0.2522E-02
1100.00	0.1189E-01	3625.00	0.2498E-02
1125.01	0.1155E-01	3650.00	0.2475E-02
1150.00	0.1123E-01	3675.00	0.2451E-02
1175.00	0.1092E-01	3700.00	0.2429E-02
1200.00	0.1063E-01	3725.00	0.2407E-02
1225.01	0.1035E-01	3750.00	0.2385E-02
1250.00	0.1009E-01	3775.00	0.2363E-02
1275.00	0.9836E-02	3800.00	0.2342E-02
1300.00	0.9592E-02	3825.00	0.2321E-02
1325.01	0.9358E-02	3850.00	0.2300E-02
1349.99	0.9132E-02	3875.00	0.2280E-02
1375.00	0.8916E-02	3900.00	0.2260E-02
1400.00	0.8709E-02	3925.00	0.2240E-02
1425.00	0.8510E-02	3950.00	0.2221E-02
1450.00	0.8319E-02	3975.00	0.2202E-02
1475.00	0.8136E-02	4000.00	0.2183E-02
1500.00	0.7960E-02	4025.00	0.2165E-02
1525.00	0.7791E-02	4050.00	0.2146E-02
1550.01	0.7628E-02	4075.00	0.2128E-02
1575.00	0.7471E-02	4100.00	0.2111E-02
1600.00	0.7319E-02	4125.00	0.2093E-02
1625.00	0.7171E-02	4150.00	0.2076E-02
1650.00	0.7029E-02	4175.00	0.2059E-02
1675.00	0.6891E-02	4200.00	0.2042E-02
1700.00	0.6758E-02	4225.00	0.2026E-02
1725.00	0.6629E-02	4250.00	0.2009E-02
1750.00	0.6504E-02	4275.00	0.1993E-02
1775.00	0.6383E-02	4300.00	0.1977E-02
1800.00	0.6266E-02	4325.00	0.1962E-02
1825.00	0.6153E-02	4350.00	0.1946E-02
1850.00	0.6043E-02	4375.00	0.1931E-02
1875.00	0.5937E-02	4400.00	0.1916E-02
1900.00	0.5834E-02	4425.00	0.1901E-02
1925.01	0.5734E-02	4450.00	0.1887E-02
1950.01	0.5638E-02	4475.00	0.1872E-02
1975.01	0.5544E-02	4500.00	0.1858E-02
2000.01	0.5452E-02	4525.00	0.1844E-02
2025.00	0.5363E-02	4550.00	0.1830E-02
2050.00	0.5277E-02	4575.00	0.1817E-02
2075.00	0.5193E-02	4600.00	0.1803E-02
2099.99	0.5111E-02	4625.00	0.1790E-02
2124.99	0.5031E-02	4650.00	0.1777E-02
2150.00	0.4954E-02	4675.00	0.1764E-02
2175.00	0.4879E-02	4700.00	0.1751E-02
2200.00	0.4805E-02	4725.00	0.1738E-02
2225.00	0.4733E-02	4750.00	0.1726E-02
2250.00	0.4663E-02	4775.00	0.1713E-02
2275.00	0.4594E-02	4800.00	0.1701E-02
2300.00	0.4528E-02	4825.00	0.1689E-02
2325.00	0.4464E-02	4850.00	0.1677E-02
2350.00	0.4401E-02	4875.00	0.1666E-02
2375.00	0.4340E-02	4900.00	0.1654E-02
2400.00	0.4280E-02	4924.99	0.1642E-02
2425.00	0.4221E-02	4950.00	0.1631E-02
2450.00	0.4164E-02	4975.00	0.1620E-02
2475.00	0.4108E-02	5000.00	0.1609E-02
2500.00	0.4053E-02		

***** AERSCREEN MAXIMUM IMPACT SUMMARY *****

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)

Report number EPA-454/R-92-019

http://www.epa.gov/scram001/guidance_permit.htm

under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.1805	0.1805	0.1805	0.1805	N/A
DISTANCE FROM SOURCE	139.99 meters				
IMPACT AT THE AMBIENT BOUNDARY	0.1313	0.1313	0.1313	0.1313	N/A
DISTANCE FROM SOURCE	1.00 meters				

ATTACHMENT C

Cancer Risk Calculations

**Air Quality Health Risk Calculations (Worst-Case)
Cleveland 29 (Tier 4 Final)**

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	0.00686					
	Construction Start	1/1/2026					
	Construction Complete	1/27/2027					
	Days	391					
	Construction Emission per day (lb/day)	0.035089514					
	Annual Duration (Days)	365					
	Emission Rate (Grams/Second)	1.84E-04					
	Project Site Size (Acres)	10					
	Project Site Size (meters^2)	40468.56422					
	Length of Smalles Side (meters)	201.168					
Used as an input to AERSCREEN	Emission Rate (Grams/Second)	1.84E-04					
From Hourly to Annual = AERSCREEN*0.1	Concentration Annual (Ug/M^3)	0.018					
Duration	Days	391	Days to years				
			1.071232877				
Age (Years)	3rd Trimester (0.25)		0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.018		0.01762	0.01762	0.01762	0.01762	0.01762
Breathing Rate per agegroup BR/BW (Page 5-25)	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	0.00000611		0.00001844	0.00001456	0.00001260	0.00000567	0.00000491
Construction Days	391		1.071232877				
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		1.071232877	1.071232877	1.071232877	1.071232877	1.071232877
AT	70		70	70	70	70	70
FAH	1		1	0.72	0.72	0.73	0.73
Risk for Each Age Group	2.39894E-07		3.10372E-06	5.29557E-07	4.58211E-07	6.96343E-08	6.02805E-08
Risk per million Exposed	0.239893783		3.103717416	0.529556835	0.458211199	0.069634321	0.060280457
Cancer Risk Over Construction Duration	3.34						

ATTACHMENT D

Terex 4242SR Rock Crusher Cut Sheet



TEREX | PEGSON

4242SR SPECIFICATION



Above photograph features a 4242SR fitted with the optional side conveyor and magnet

IMPACT CRUSHER

Crusher type:	428 Fixed Hammer Impactor.
Feed opening:	1067mm x 711mm.
Rotor Width:	1066 mm.
Rotor Diameter:	1066 mm (Over Hammers).
Crusher frame:	Fabricated from steel plate and fitted with replaceable liner plates.
Rotor:	Runs in two heavy-duty spherical self aligning roller bearings and is fitted with four reversible and replaceable fixed blow bars.
Blowbars:	Two full size and two half size high manganese blow bars are fitted as standard.
Impact aprons:	Fitted in upper and middle positions and lined with wear resistant impact plates.
Drive:	Through wedge belts with screw tension adjustment on engine.
Engine pulley:	Machines built for stock are fitted with the standard speed pulley (suitable for quarry applications). The slower crusher pulley is supplied loose.
Maximum feed size:	400mm ³ depending on type of blow bar and material being processed.
Impactor speeds:	Slow 504 rpm (224mm diameter) Std. 630 rpm (280mm diameter)
Lubrication:	Greased roller bearings, inner and outer labyrinth seals.

Adjustment:

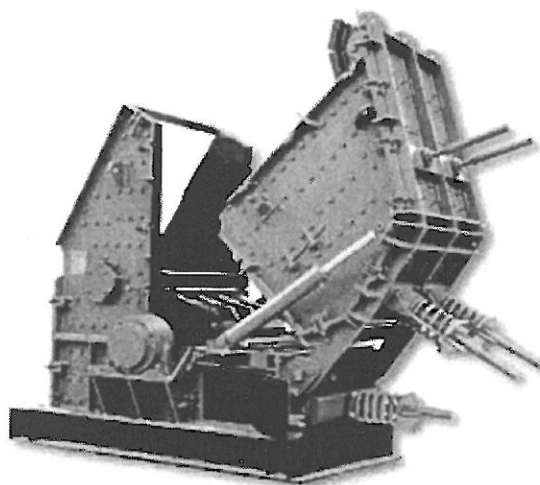
Manual adjustment on upper and lower aprons with overload compression springs on lower apron.

Maintenance: Crusher Liners:

Hydraulic case opening Fully lined internally with abrasion resistant steel.

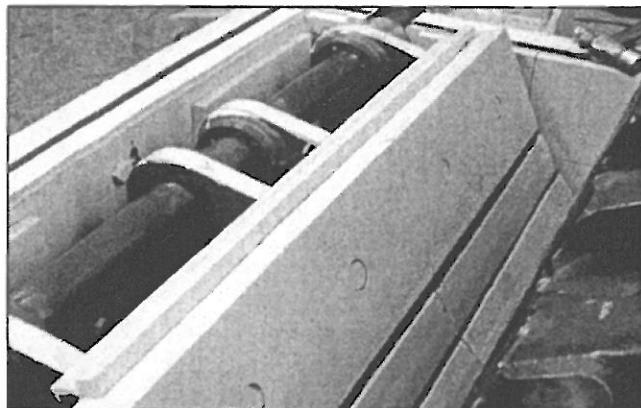
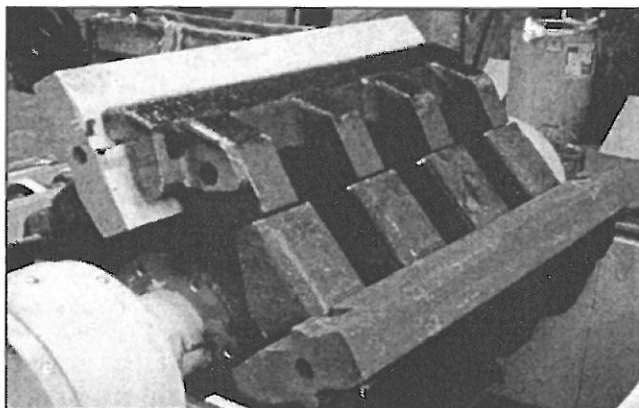
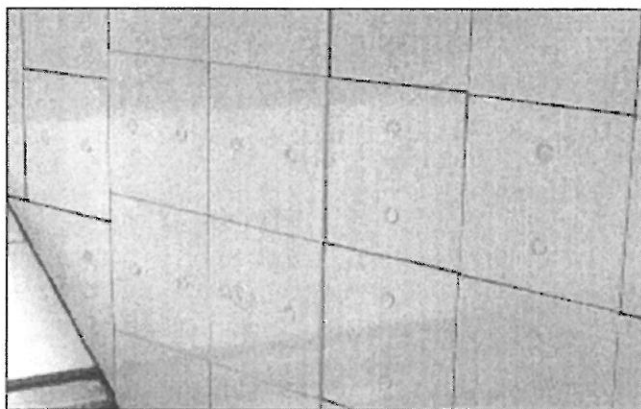
Grinding path:

Optional grinding path with manual adjustment and overload compression springs suitable for certain quarry applications.

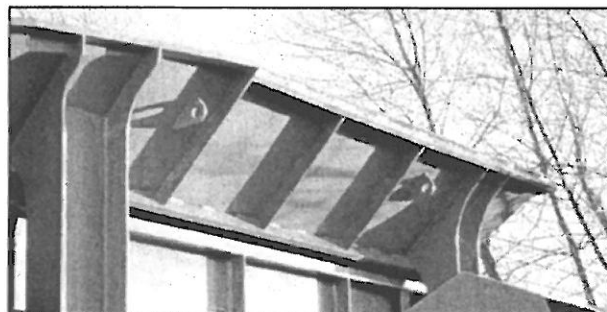


APPLICATIONS

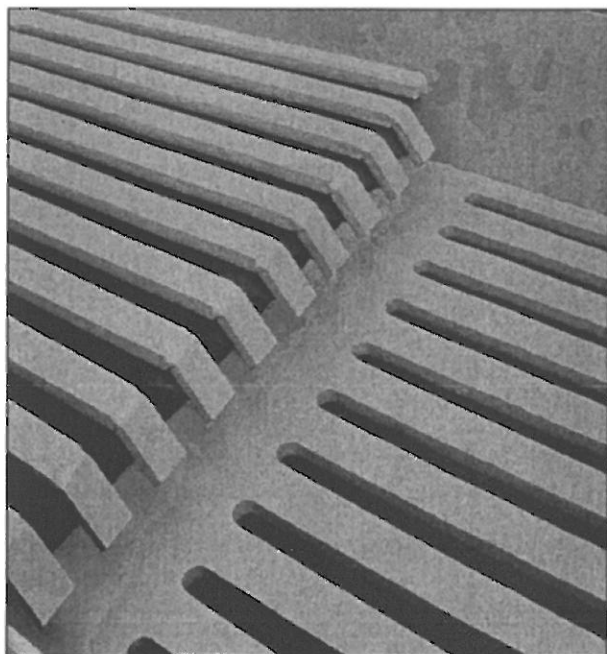
This plant is designed for both demolition and quarrying applications. When fitted with manganese blow bars the crusher will tolerate small quantities of steel reinforcing bar in the feed. However, the machine is not designed to accept large pieces of steel or other uncrushable objects, and the feed material should be assessed / inspected for suitability prior to use. It is vitally important that large pieces of steel or similar uncrushable objects are not allowed to enter the crushing chamber as severe damage and injury may occur. When High Chrome bars are fitted, no steel should be allowed to enter the chamber, the machine should only be used on quarry applications, or clean materials such as asphalt.

IMPACT CRUSHER - INTERNAL**HOPPER**

Hopper type: Fixed Hopper.
Hopper length: 4m.
Hopper width: 2.1m.
Hopper capacity: Up to 3.8m³ gross depending on method of feed.
Hopper body: Hardox wear resistant steel plate with suitably braced steel sections.

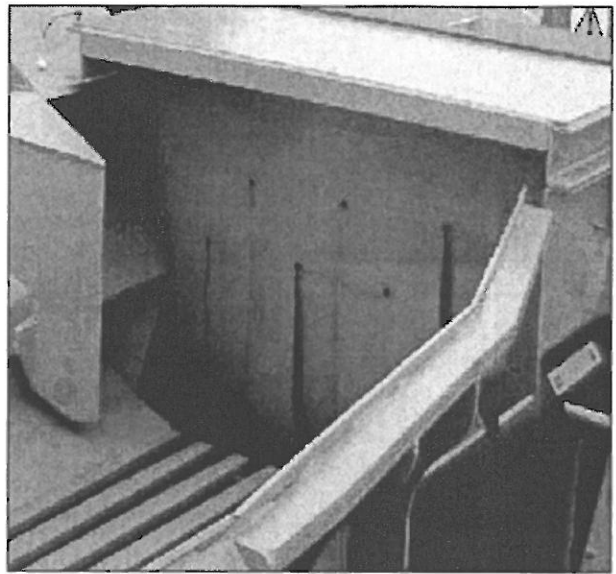
**VIBRATING GRIZZLY FEEDER**

Type: Spring mounted vibrating pan.
Vibrating unit: Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end.
Length: 3.8m.
Width: 1.08m.
Pan: 12mm thick abrasion resistant steel bottom plate is included in the welded construction.
Drive: Flange mounted hydraulic motor
Grizzly: 2.16m long double section of welded tapered finger bars at 50mm spaces fabricated in 20mm thick abrasion resistant steel.
Underscreen: Removable rubber blanking mat fitted as standard. This can be substituted for various aperture wire meshes.
Control: Variable speed control through a proportional flow control valve.



PLANT CHUTEWORK

- Impactor feed chute:** Fabricated in 10mm mild steel plate with full width single strand chain curtain and rubber curtain. Liners are fitted at wear points.
- Grizzly fines chute:** Chutework fabricated in 6mm mild steel plate is provided with two-way flapdoor. Material passing over the blanking mat is discharged to the main product conveyor via the bypass chute.

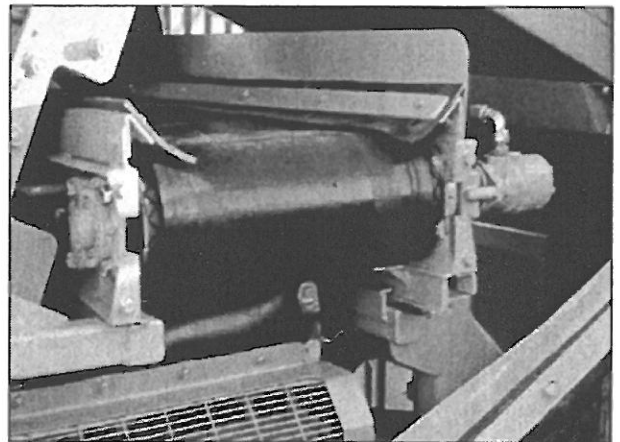
**ON PLANT PRODUCT CONVEYOR****CONVEYOR 1**

- Conveyor type:** Troughed belt conveyor with fixed tail end.
- Belt type:** Ripstop EP500/3 with 5mm top and 2mm bottom heavy-duty rubber covers.
- Belt width:** 1m.
- Drive:** Direct drive hydraulic motor
- Feedboot:** Fabricated in mild steel plate with abrasion resistant steel liners.
- Control:** Fixed speed.

- Skirting:** Fully skirted wear resistant rubber sealing along the conveyor length.
- Belt covers:** Canvas type removable dust covers are fitted at the head end.
- Impact cradle:** This is provided beneath the belt immediately below the impactor outlet.
- Lubrication:** Grease nipples located on bearing housings at tailshaft.

TOP DECK SIDE TRANSFER CONVEYOR**CONVEYOR 2**

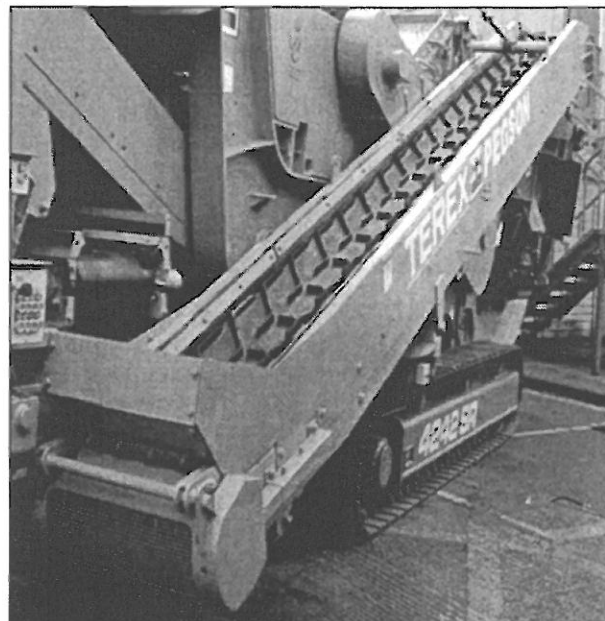
- Conveyor type:** Plain belt.
- Belt type:** EP400/2 with 5mm top and 1.5mm bottom rubber covers. A vulcanised joint is included.
- Conveyor:** Transfers material from the top deck of the sizing screen to the re-circulating conveyor.
- Width:** 500mm.
- Drive:** Direct drive hydraulic motor.
- Lubrication:** Grease nipples located on bearing housing at head and tailshaft.



RE-CIRCULATING CONVEYOR

CONVEYOR 3

Conveyor type: Chevron type troughed belt.
Belt type: EP315/2 with 3mm top and 1mm bottom rubber covers, 35mm high cleats and a vulcanised joint.
Conveyor: Returns oversize material transferred from the top deck back to the impactor for re-crushing. This conveyor can be slewed to enable oversize material to be stockpiled at the side of the plant.
Width: 500mm.
Drive: Direct drive hydraulic motor
Lubrication: Grease nipples located on bearing housing for tailshaft. Remote grease nipples for head drum.



FINES PRODUCT CONVEYOR

CONVEYOR 4

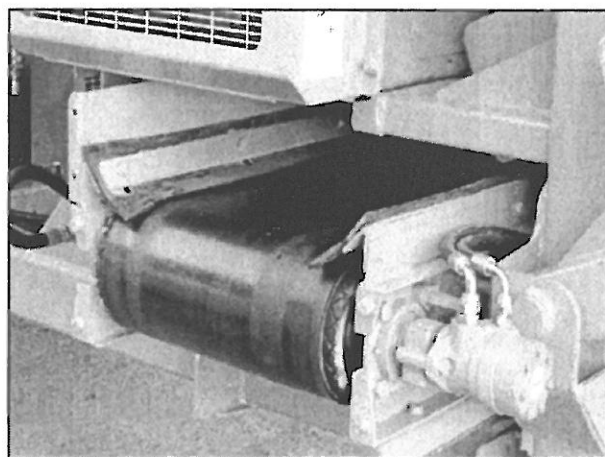
Conveyor type: Plain troughed belt
Belt type: EP400/2 with 5mm top and 1.5mm bottom rubber covers. A vulcanised joint is included.
Position: Mounted beneath the sizing screen.
Width: 1.4m.
Discharge Height: 2.93m.
Drive: Direct drive hydraulic motor.
Lubrication: Grease nipples located on bearing housing at head and tailshaft.
Control: Fixed Speed.



BOTTOM DECK SIDE TRANSFER CONVEYOR

CONVEYOR 5

Conveyor type: Plain belt.
Belt type: EP400/2 with 5mm top and 1.5mm bottom rubber covers. A vulcanised joint is included.
Conveyor: Transfers material from the bottom deck of the sizing screen to the optional plant mounted stockpiling conveyor or the re-circulating conveyor when in position.
Width: 500mm.
Drive: Direct drive hydraulic motor.
Lubrication: Grease nipples located on bearing housing at head and tailshaft.



STOCKPILING CONVEYOR

CONVEYOR 6 (Optional extra)

Conveyor type: Chevron type troughed belt
Belt type: EP315/2 with 3mm top and 1mm bottom rubber covers, 35mm high cleats and a vulcanised joint.
Width: 500mm.
Drive: Direct drive hydraulic motor.

Lubrication: Grease nipples located on bearing housing at tailshaft. Remote grease nipples for head drum.
Conveyor: Stockpiles material transferred from the bottom deck side transfer conveyor to the side of the plant.

SIZING SCREEN

Type: Double deck vibrating screen (Four bearing type)
Size: 1525 x 3350.
Position: Mounted beneath the impactor product conveyor.
Drive: Hydraulic drive.
Top deck: 45mm aperture fitted as standard
Bottom deck: Optional mesh.
Control: Fixed speed. (1100 rpm)
Lubrication: Four grease nipples.
Access: Fines conveyor and screen can be lowered for maintenance.

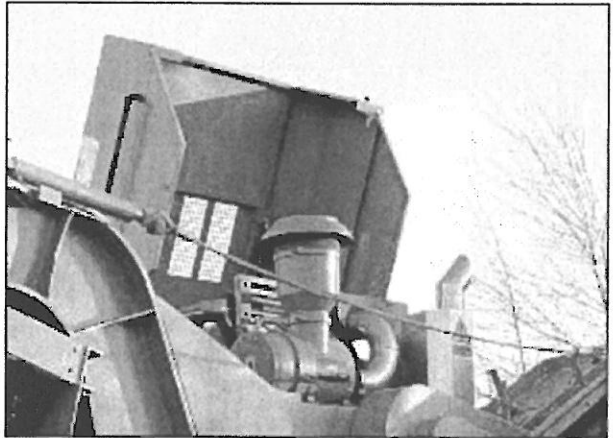


POWERPACK

Powerpack type: Caterpillar C-9.
Performance: 309 HP (230kW) at 1800 rpm at sea level.
Engine: Six cylinders, four stroke, direct Injection.
Fuel tank capacity: 463 Litres.

CLUTCH

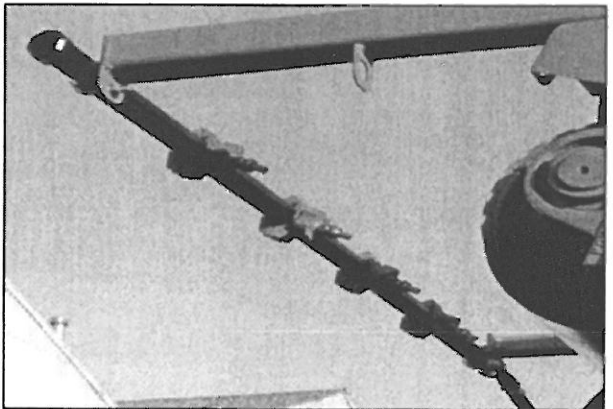
Clutch type: Manually operated twin disc clutch.



DUST SUPPRESSION SPRAYS

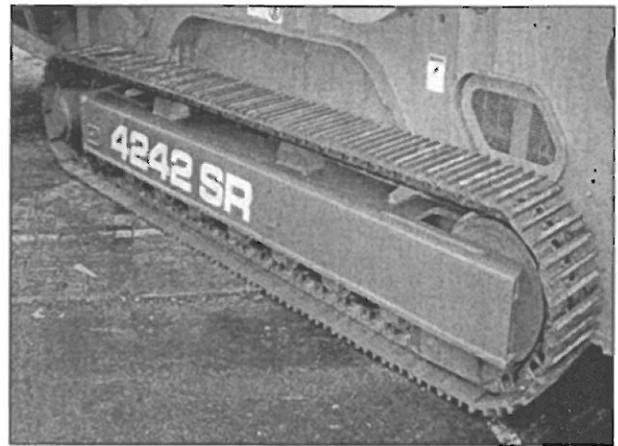
Sprays bars with atomiser nozzles are mounted over the impactor discharge point and the fines product conveyor head piped to an inlet manifold for client's pressured water supply.

Type: Clean water multi atomising nozzles.
Inlet: Single Point.
Pressure required: 2.8 bar (42 psi).
Water supply: 7 litres per minute.
Frost protection: Via system drain valves.
Pump: Optional extra.



CRAWLER TRACKS

Type:	Heavy-duty tracks fitted as standard.
Pitch:	160mm.
Longitudinal centres:	3800mm.
Track width:	400 mm.
Climbing grade:	29° maximum.
High speed:	0.8 km/hr.
Slow speed:	0.322 km/hr.
Drive:	Hydraulic integral motors
Track tensioning:	Hydraulic adjuster, grease tension.

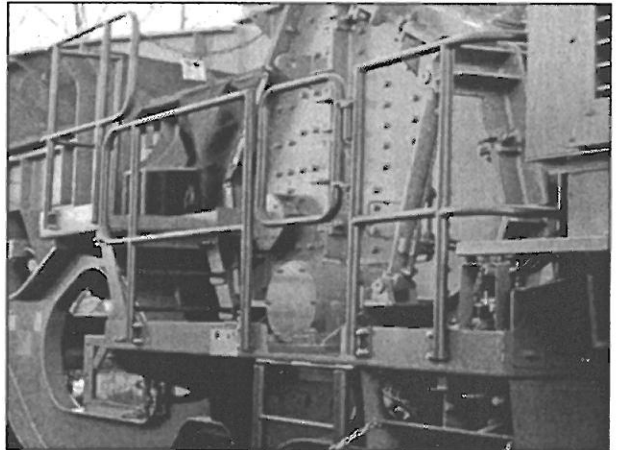
**GUARDS**

Wire mesh or sheet metal guards are provided for all drives, flywheels, pulleys & couplings.

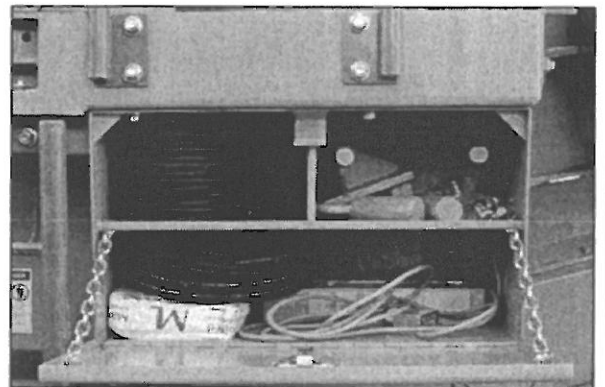
The guards provided are designed and manufactured to CE & ANSI standards.

**PLATFORMS**

A steel grid maintenance platform is provided on one side of the feeder and impactor fitted with double row handrails and access ladders. Platforms are also included to gain access to the rear of the crusher and the powerpack.

**TOOLBOX**

A plant mounted lockable toolbox is provided containing the slower speed pulley, operators manual, impactor stops, spanner, door open locking pins, screen mesh tensioning hoses, blow bar ejector hoses and a grease gun.



CHASSIS

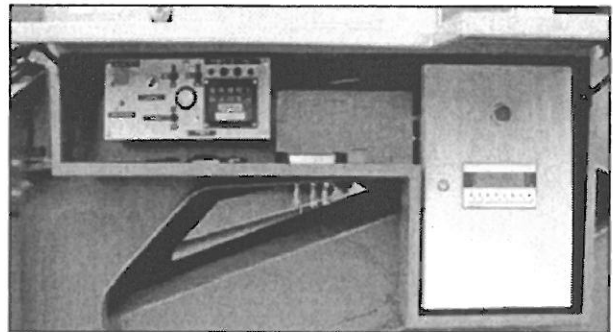
Heavy duty steel fabricated I section of welded construction.



PLC CONTROLS

A PLC control system is fitted onto the plant to operate the following items: -

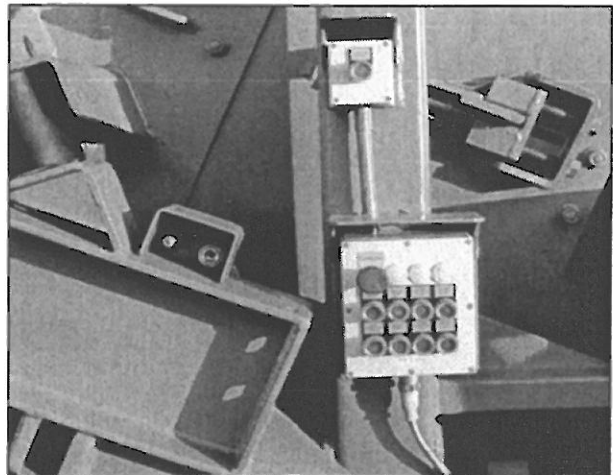
- Feeder (Start/Stop/Speed).
- Optional Dirt Conveyor (Start/Stop).
(Also operates Re-Circulating, stockpiling and side transfer conveyors)
- Product Conveyor (Start/Stop).
- Screen and fines conveyor (Start/Stop).



SET UP CONTROLS

Controls are fitted onto the plant to operate the following items: -

- Side chute (Raise/Lower).
- Screen/Fines Conveyor (Raise/Lower).
- Recirculating Conveyor (Raise/Lower).
- Dirt Conveyor (Raise/Lower)



UMBILICAL CONTROL

An umbilical control unit is also supplied with the plant. This is fitted with controls for the track motion, feeder stop, start and a stop button for the plant.



OPTIONAL EXTRAS

(For prices refer to your dealer)

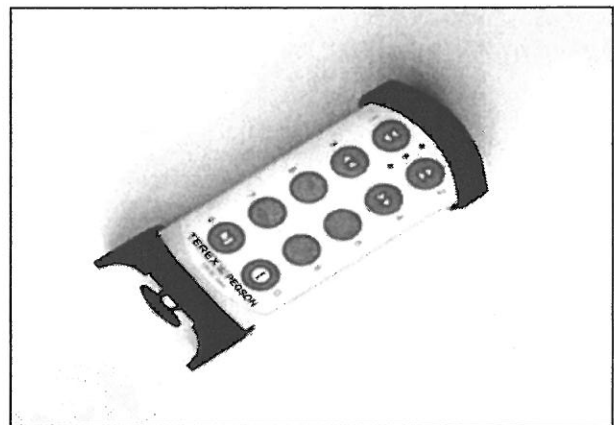
- High Chrome hammers (only for use when no steel in feed).
- Single idler belt weigher with integrator and speed sensing wheel fitted to fines conveyor.
- 500mm wide stockpiling conveyor from the bottom oversize transfer conveyor.
- Four full size hammers in lieu of two full and two half hammers.
- Re-fuelling pump kit.
- Radio remote control.
- Overband magnetic separator
- Side/dirt conveyor.
- Wire meshes for feeder underscreen to separate scalplings at 10mm, 20mm, 30mm, 40mm or 50mm. The optional dirt conveyor must be fitted.
- Grinding path (not suitable for demolition applications) fitted in the lower position and lined with wear resistant impact plates on the upper section, and reversible manganese impact bars on the lower section. When fitted greater control of the product size is achieved together with improved product shape.

RECOMMENDED OPTIONAL EXTRAS

- Engine fire extinguisher system.
- Hydraulic driven water pump assembly to provide a pressurised water supply to the dust suppression sprays.

REMOTE CONTROL (OPTIONAL EXTRA)

This option will control the tracking function and also provides stop and start controls for the vibrating grizzly feeder, together with a stop button for the plant. **This facility is only available in certain countries where type approval has been obtained.** For a full list of countries, please consult TP or your dealer.

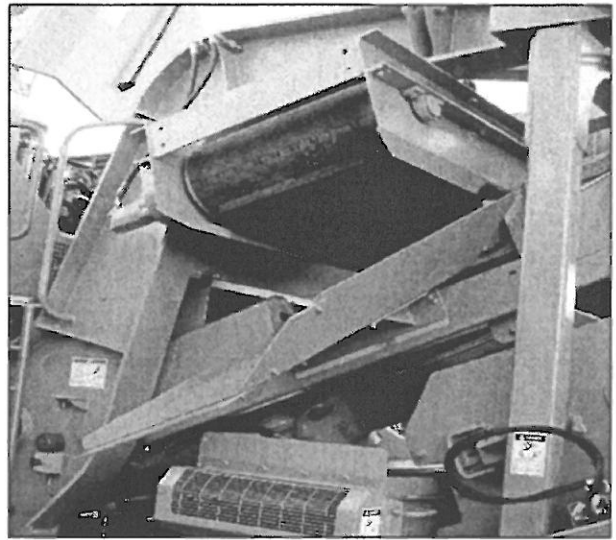
**ON PLANT DIRT/SIDE CONVEYOR (OPTIONAL EXTRA) CONVEYOR DC**

Conveyor type:	Plain troughed belt, hydraulic folding for transport.
Width:	600mm.
Discharge height:	2.0m.
Drive:	Direct drive hydraulic motor.
Lubrication:	Grease nipples located on bearing housing at head and tailshaft. Remote greasing at tail drum.
Skirts:	Full length.
Position:	Mounted to discharge on near side of plant.

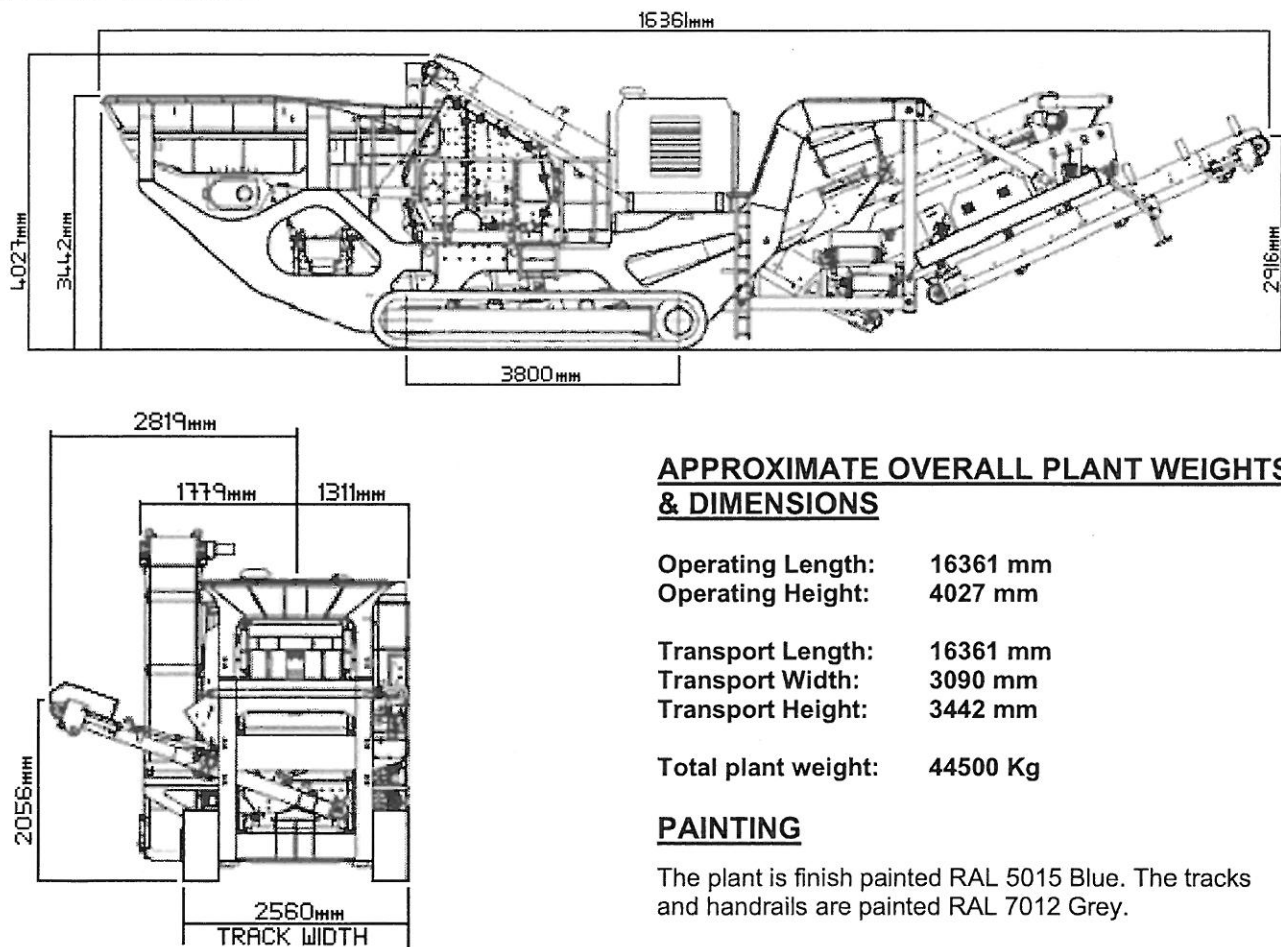


MAGNET (OPTIONAL EXTRA)

Magnet Type:	Suspended self-cleaning overband, fitted with endless belt.
Magnet Width:	750mm.
Magnet length:	1000mm.
Drive:	Hydraulic Motor.
Control:	Pre-set variable speed.
Discharge chute:	Via stainless steel shedder plate.
Power:	570 Gauss at 200mm. 450 Gauss at 250mm.



PLANT DIAGRAM



APPROXIMATE OVERALL PLANT WEIGHTS & DIMENSIONS

Operating Length: 16361 mm
Operating Height: 4027 mm

Transport Length: 16361 mm
Transport Width: 3090 mm
Transport Height: 3442 mm

Total plant weight: 44500 Kg

PAINTING

The plant is finish painted RAL 5015 Blue. The tracks and handrails are painted RAL 7012 Grey.

GENERAL

TEREX | Pegson equipment complies with CE requirements.

The plant is designed to operate between ambient temperatures of between -10c and 40c at altitudes up to 1000 meters above sea level. For applications outside this range please consult with Terex Pegson Limited.

Above line drawings feature a 4242SR with optional magnet and side conveyor.

Please consult TEREX | Pegson if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices. Every endeavour will be made to supply equipment as specified, but we reserve the right, where necessary, to amend the specifications without prior notice as we operate a policy of continual product development. It is the importers responsibility to check that all equipment supplied complies with local legislation.

4242SR Specification 4242SR/204.