

Appendix B: Air Quality/Greenhouse Gases Technical Memorandum

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Memorandum

To:	Buzz Berger, PE Associate Vice President HDR 3003 Oak Road, Ste. 500 Walnut Creek, CA 95747
From:	Cory Matsui, Kelsey Hartfelder, ICF
Date:	August 2, 2023
Re:	Air Quality and Greenhouse Gas Analysis of the Roseville Third Track Passenger Train Layover Facility

Introduction

In 2015, the Capitol Corridor Joint Powers Authority (CCJPA) certified a final EIR and approved the Sacramento to Roseville Third Track Passenger Rail project (CCJPA 2015). Since then, CCJPA has determined that changes to the Roseville Passenger Train Layover design and location need to be made. The purpose of this memorandum is to address the potential air quality and greenhouse gas impacts associated with changes to the Sacramento-Roseville Third Track: Roseville Passenger Train Layover (Project). The Project is required to comply with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA); thus, this memorandum provides support for both the CEQA and NEPA environmental review.

Project Description

The Project proposes the development of a layover facility, occupying approximately 9.5 acres along the Union Pacific Railroad (UPRR) right-of-way between Yosemite Street and Galleria Boulevard and serving as an endpoint where passenger trains begin and end their runs in Roseville, California. The layover facility would also be used for storage and light maintenance of up to four full passenger train sets at any one time. Typical activities at the layover facility will include storing passenger trains, cleaning the interiors of trains, emptying of sanitary retention tanks, and light maintenance. Locomotives may also receive fuel from trucks. The facility would also include an 8,000 square foot office, including a break room, a training room, administrative spaces, a small storage area, rest rooms, a locker room, and 22 employee parking spaces to serve as a point for train crews to start of finish their daily tours of duty.

CEQA Results

Criteria Air Pollutant and Greenhouse Gas Analysis Methodology

Construction Assumptions

Construction of the Project would generate emissions of reactive organic gases (ROG), nitrogen oxide (NO_x), carbon monoxide (CO), particulate matter no more than 10 microns in diameter (PM₁₀), and particulate matter no more than 2.5 microns in diameter (PM_{2.5}), resulting in short-term impacts on ambient air quality in the air quality study area (i.e., the Sacramento Valley Air Basin [SVAB]). Construction would also generate emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) that would result in long-term impacts on atmospheric greenhouse gas (GHG) concentrations. Emissions would be released in the form of exhaust from off-road equipment; exhaust from employee vehicles, vendor trucks, and haul trucks; exhaust from ballast-hauling locomotives; fugitive dust from site grading, earthmoving, and demolition; suspended road dust from vehicle travel; and off-gassing from architectural coatings and paving.

Short-term emissions generated by Project construction were calculated using CalEEMod Version 2022.1, which uses vehicle emission factors from CARB's EMFAC2021 (CAPCOA 2022). Modeling was based on Project-specific information provided by HDR and the Capitol Corridor Joint Powers Authority (CCJPA) where available, including demolition quantities, earthwork estimates, facility sizes and characteristics, expected construction phase durations, equipment inventory, number of truck trips, the area to be graded or paved, and construction electricity consumption. Default values from CalEEMod were also used, which are generated by the model based on a Project's location and land use type. Emission factors for locomotives from the United States Environmental Protection Agency (U.S. EPA) and the 2021 Port of Long Beach (POLB) Air Emissions Inventory were entered into CalEEMod to estimate emissions associated with ballast-hauling locomotives (U.S. EPA 2009; POLB 2021).

Construction of the Project was assumed to occur over approximately one year. Based on the construction schedule provided by HDR and CCJPA, construction of the Project may overlap with the final year of construction of the original Sacramento to Roseville Third Main Track project. Accordingly, the Project's construction emissions were summed with those associated with the final year of construction for the original Sacramento to Roseville Third Main Track project, as evaluated and disclosed in the 2015 Sacramento to Roseville Third Main Track Environmental Impact Report (CCJPA 2015).

Attachment A includes construction modeling outputs and detailed assumptions.

Operations Assumptions

Operation of the Project would generate emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5} that could result in long-term impacts on ambient air quality. Project operation would also generate emissions of CO₂, CH₄, and N₂O that could result in long-term impacts on atmospheric GHG concentrations. Emissions from employee vehicles traveling to and from the facility, energy consumption, water use, waste generation, operation of the emergency generator, the reapplication of architectural coatings, the

use of consumer products, and the use of landscaping equipment were calculated using CalEEMod Version 2022.1. Modeling was based on Project-specific information where available, including the Project's estimated outdoor water use rate, solid waste generation rate, and information regarding the proposed emergency generator; and default values from CalEEMod, which are generated by the model based on a project's location and land use type.

The Project would not induce additional motor vehicles to travel to the Roseville transit station or increase passenger train activities, including locomotive usage or required maintenance, but it would result in incremental emissions in addition to the emissions identified in the 2015 EIR. The Project would increase running time for locomotives traveling the additional distance to the new location of the layover facility. Additionally, the Project would result in emissions from locomotive idling at a new location, because the layover facility was previously located in Old Town Roseville. It should be noted that the emissions from locomotive idling would not increase beyond those presented in the 2015 EIR, because the number of trains and idling time would remain the same. What is changing is the location of the idling emissions. Locomotive running and idling emissions were estimated based on EPA's locomotive emissions standards for traction engines and California Air Resources Board's (CARB's) offroad diesel engine standards for head-end-power engines.

The Project's operational emissions were summed with those from the 2015 EIR to evaluate the potential for Project implementation to result in new or more significant impacts than those evaluated and disclosed for the original Sacramento to Roseville Third Main Track project.

Attachment A includes detailed operational modeling outputs.

CEQA Air Quality Analysis Results

This section describes the estimated air quality impacts from construction and operation of the Project as required under CEQA.

Impact AQ-1: Conflict with or obstruction of implementation of the applicable air quality plan

Consistent with the analysis provided in the 2015 EIR, the Project's potential to "conflict with or obstruct implementation" is defined as circumstances under which the Project would exceed the growth assumptions utilized by the Sacramento Area Council of Governments (SACOG) in preparing the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) or worsen existing air quality violations (SACOG 2019).

The Project would not increase passenger train frequency beyond the additional service evaluated in the 2015 EIR, and would thus not increase maintenance activities, or induce additional motor vehicle travel to the Roseville transit station. The Project would only relocate the layover facility, resulting in minor additional locomotive travel of approximately two minutes per train. Accordingly, the Project would not increase the overall growth pressure in the communities served by CCJPA, and the Project would be consistent with recent growth projections for the region and would not conflict with the current air quality plans. Moreover, SACOG's MTP/SCS includes strategies to reduce single-occupancy vehicle usage and to increase alternative transportation (SACOG 2019). Implementation of the Sacramento to Roseville Third Main Track Project, including the revised location of the layover facility, would support efforts to expand passenger rail service and accommodate increased

ridership, as the proposed layover facility would be used for maintenance of passenger trains. As a result, operation of the Project would contribute to SACOG's goals to improve long-term air quality, reduce on road vehicle miles traveled (VMT), and increase alternative transportation.

As described below, while short-term emissions would be generated during construction, these would be mitigated to below air district significance thresholds (see Impact AQ-2). Likewise, long-term operation of the Project would result in a net reduction of all criteria pollutant emissions except NO_x under design year (2035) conditions, and the Project's operational NO_x emissions would not exceed the applicable PCAPCD threshold (Impact AQ-2). The Project would thus not worsen existing air quality violations,

Impact AQ-2: Potential to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard.

Construction

Table 1 summarizes the results of the emissions modeling, which are compared to PCAPCD's criteria pollutant numeric thresholds for construction emissions (PCAPCD 2017a). The emissions shown in Table 1 are the maximum daily emissions that would occur, consistent with PCAPCD guidance. Maximum daily emissions are conservative, because they capture the emissions that would occur on the worst-case day of construction, whereas the use of average daily thresholds in other air districts results in lower emissions values that are averaged across the construction period.

It should be noted that the emissions presented in Table 1 are also conservative, because the 2015 EIR included emissions for construction of a new 4,600-square-foot maintenance facility, which would likely be replaced by the proposed layover facility. However, it is not feasible to adjust the emissions disclosed in the 2015 EIR to subtract the contribution from the original maintenance facility construction. As such, the Project's emissions are summed with emissions in the third year of construction associated with the original Sacramento to Roseville Third Main Track project. As a result, there may be some unavoidable double counting of emissions between the original maintenance facility and the proposed layover facility. Although double counting may occur, summing emissions in this way is a conservative approach and allows for a comprehensive evaluation of the Sacramento to Roseville Third Main Track project with the proposed layover facility.

Table 1. Criteria Pollutant Emissions from Project Construction (maximum pounds per day)

Year/Condition	ROG	NO _x	PM ₁₀
Unmitigated Construction			
2015 EIR			
Year 1	2	24	12
Year 2	9	96	50
Year 3	24	30	19
Roseville Layover	<u>44</u>	<u>593</u>	<u>50</u>
Net Unmitigated	<u>68</u>	<u>623</u>	<u>69</u>

(2015 EIR Year 3 + Roseville Layover)			
<i>PCAPCD Threshold</i>	82	82	82
Exceed?	No	Yes	No
Mitigated Construction			
2015 EIR			
Year 1	2	19	12
Year 2	9	77	50
Year 3	24	24	19
Roseville Layover	<u>16</u>	<u>129</u>	<u>24</u>
Net Mitigated (2015 EIR Year 3 + Roseville Layover)	<u>40</u>	<u>153</u>	<u>43</u>
<i>PCAPCD Threshold</i>	82	82	82
Exceed?	No	<u>Yes</u>	No
Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.			
Notes: Bold, underlined text indicates changes in emissions and exceedances from 2015 EIR resulting from the Proposed Project; PCAPCD = Placer County Air Pollution Control District; ROG= reactive organic gases; NO _x = nitrogen oxide; PM ₁₀ = particulate matter no more than 10 microns in diameter.			

As shown in Table 1, the Project's unmitigated construction activities would generate NO_x emissions that exceed the applicable PCAPCD numeric threshold and ROG and PM₁₀ emissions that are below the applicable PCAPCD numeric thresholds. The primary reason for the exceedance of the emissions threshold is from the use of locomotives to haul ballast from quarries to the Project site. The ballast-hauling locomotives are high-horsepower and thus emissions-intensive equipment, but the use of the locomotives would occur for only 4 days. On these days, the maximum daily emissions scenario would occur, and the threshold would be exceeded; however, for the majority of days during construction the emissions of NO_x would be substantially lower. The average emissions during construction would thus result in lower emissions than those presented in Table 1, and the presentation of maximum daily emissions is conservative.

Mitigation Measure AQ-1 would be implemented to reduce the Project's construction NO_x emissions below PCAPCD thresholds. This would be accomplished by using Tier 4 final construction equipment, using Tier 4 locomotives for ballast hauling, and, for emissions that are still above the threshold after use of Tier 4 equipment, offsets would be purchased in coordination with PCAPCD. The use of offsets would only apply to days when the NO_x threshold is exceeded. As indicated above, the number of days that emissions would be exceeded would be limited to the days that locomotive ballast hauling would occur (i.e., 3-4 days). As such, construction emissions would not be expected to contribute to a significant level of air pollution that would degrade regional air quality within the SFBAAB with the implementation of Mitigation Measure AQ-1.

Mitigation Measure AQ-1: Reduce construction emissions to below PCAPCD NO_x thresholds.

CCJPA shall ensure that construction-related emissions do not exceed PCAPCD's construction NO_x threshold of 82 pounds per day. Potential measures include but are not limited to those listed below.

- Require the usage of EPA-rated Tier 4 Final rated construction equipment. In general, replacing Tier 2 equipment with Tier 4 Final equipment can result in a 94% reduction in NO_x emissions.
- Require the usage of EPA-rated Tier 4 locomotives for ballast hauling between quarries and the Project site.
- Work with PCAPCD to purchase NO_x credits to offset remaining NO_x construction emissions exceeding PCAPCD thresholds.

Operations

Table 2 summarizes the Project's estimated operational criteria pollutant emissions, which are compared to PCAPCD's operational criteria pollutant numeric thresholds (PCAPCD 2017a). The emissions shown in Table 2 represent the entire Sacramento to Roseville Third Main Track Project with the revised location of the layover facility. The only difference in emissions between what is shown in Table 2 and what is shown in the 2015 EIR is the additional run-time of approximately two minutes that would occur from the revised layover facility location. Idling emissions would remain the same as in the 2015 EIR, but the idling would occur in a different location. For this reason, idling emissions are included in the analysis of health risks below (see Impact AQ-3).

Table 2 shows emissions that would occur in both PCAPCD and the Sacramento Metropolitan Air Quality Management District (SMAQMD). However, because the only change in the overall project is within the PCAPCD, emissions in SMAQMD are not affected and thus are the same as what is shown in the 2015 EIR. Emissions are shown for various sources in Table 2, including those that are not affected by the Project (e.g., public on-road vehicles and buses), because the location of the layover facility does not affect ridership (and thus on-road vehicle travel) or bus service. Consistent with the 2015 EIR, emissions are presented for two scenarios (existing conditions in 2013 and design conditions in 2035); however, the impact determination is made with respect to design conditions only, because comparing to existing conditions would overestimate emissions. Page 3.2-7 through 3.2-8 of the draft 2015 EIR provides the rationale for determining impacts with respect to design conditions.

For the reasons noted above for construction, the emissions presented in Table 2 are conservative because the 2015 EIR included emissions for the operation of a new maintenance facility, which the proposed layover facility would likely replace. It is not feasible to adjust the emissions disclosed in the 2015 EIR to subtract the contribution from operation of the original maintenance facility. As such, the Project's emissions are conservatively summed with all emissions expected to result from the original Sacramento to Roseville Third Main Track project. Although some double counting may occur, summing emissions in this way is a conservative approach and allows for a comprehensive

evaluation of the Sacramento to Roseville Third Main Track project with the proposed layover facility.

Table 2. Net Daily Operational Emissions in SMAQMD and PCAPCD (pounds/day)

Source	SMAQMD						PCAPCD					
	ROG	NO _x	CO	PM10	PM2.5	SO ₂	ROG	NO _x	CO	PM10	PM2.5	SO ₂
Existing Conditions (2013)												
Train operation	6.3	115.4	28	4.1	4	0.1	<u>2.7</u>	<u>51.4</u>	<u>11.1</u>	<u>1.8</u>	<u>1.7</u>	<u>0.1</u>
Public vehicles	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses— Thruway	<-0.1	-0.2	-0.4	<-0.1	<-0.1	<-0.1	<-0.1	-0.2	-0.4	<-0.1	<-0.1	<-0.1
Public Buses— Roseville	-	-	-	-	-	-	<0.1	0.1	0.2	<0.1	<0.1	<0.1
O&M at Roseville Station	-	-	-	-	-	-	0.1	0.1	0.3	<0.1	<0.1	<0.1
Total Net Change	-0.3	93.7	-53.2	-2.3	1.9	-0.1	<u>-3.8</u>	<u>29.9</u>	<u>-69.6</u>	<u>-4.6</u>	<u>-0.4</u>	<u>-0.1</u>
<i>CEQA Threshold</i>	64	64	-	-	-	-	55	55	-	82	-	-
Exceed?	No	Yes	N/A	N/A	N/A	N/A	No	No	N/A	No	N/A	N/A
Design Conditions (2035)												
Train operation	0.9	21.4	27.4	0.3	0.3	0.1	<u>0.9</u>	<u>21.9</u>	<u>28.1</u>	<u>0.3</u>	<u>0.3</u>	<u>0.1</u>
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses— Thruway	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1
Public Buses— Roseville	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
O&M at Roseville Station	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
O&M at Roseville Layover Facility	-	-	-	-	-	-	<u>0.1</u>	<u><0.1</u>	<u>0.3</u>	<u>0.1</u>	<u><0.1</u>	<u><0.1</u>
Total Net Change	-1.8	15.5	-1.7	-5.9	-1.6	-0.1	<u>-1.6</u>	<u>16.1</u>	<u>-0.6</u>	<u>-5.8</u>	<u>-1.6</u>	<u>-0.1</u>
<i>CEQA Threshold</i>	64	64	-	-	-	-	55	55	-	82	-	-
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A	No	No	N/A	No	N/A	N/A

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project. SMAQMD = Sacramento Metropolitan Air Quality Management District; PCAPCD = Placer County Air Pollution Control District; ROG= reactive organic gases; NO_x = nitrogen oxide; PM₁₀ = particulate matter no more than 10 microns in diameter.

As shown in Table 2, operation of the Project would not generate ROG, NO_x, or particulate matter that would exceed the applicable PCAPCD numeric thresholds. This conclusion is consistent with the conclusion in the 2015 EIR. As such, Project operation would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB.

Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations.

Localized Carbon Monoxide Concentrations

As noted in the 2015 EIR, increased passenger traffic near the Sacramento and Roseville stations would have the potential to create CO hot spots. The Project would not induce additional motor vehicles to travel to the Sacramento or Roseville transit stations, because ridership is not affected by the specific location of a layover facility. Thus, the Project would not have the potential to create CO hot spots beyond those analyzed in the 2015 EIR. As a result, consistent with the localized carbon monoxide analysis provided in the 2015 EIR, the Project would not be expected to result in CO hot spots at the intersections surrounding the transit stations.

Localized Diesel Particulate Matter Concentrations

Construction activities would generate emissions of diesel particulate matter (DPM) from the use of heavy-duty off-road equipment, including ballast-hauling locomotives, and trucks used for hauling materials. During the Project's operational phase, increased DPM emissions would be generated by locomotive activity along the rail line covering the additional distance to the proposed layover facility, locomotive idling at the layover facility, and the proposed diesel-fueled emergency generator. Sensitive receptors in the Project area include Roseville High School and multiple residences located directly adjacent to the Project boundary.

Because the Project would introduce DPM emissions in an area near existing sensitive receptors, a Health Risk Assessment (HRA) was conducted in accordance with PCAPCD guidelines. The HRA uses EPA's most recent air dispersion model, AERMOD (version 22112), and risk assessment methodologies for DPM provided by the Office of Environmental Health Hazard Assessment (OEHHA 2015). The HRA consists of three parts: an emissions inventory, air dispersion modeling, and risk calculations.

Exposure to DPM emissions from construction activities and locomotive movement and idling during Project operation was assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated DPM concentrations. Cancer health risk from exposure to diesel exhaust is associated with chronic exposure, in which a 30-year exposure period is assumed. DPM exposure and associated health risks are dependent on several factors, including variation in receptor behavior and physiology, as well as meteorological conditions and the release characteristics of the engine exhaust. Depending on the release height and other variables, the highest exposure may not be at locations nearest to the track. Note that DPM concentrations, and thus cancer risks, dissipate as a function of distance from the emissions source.

The results of the HRA are summarized in Table 3 and compared to PCAPCD's health risk thresholds (PCAPCD 2017b).

Table 3. Mitigated and Unmitigated Health Risks Resulting from Project Construction and Operation

Condition	DPM Cancer Risk	Chronic Non-Cancer HI
Project Construction and Operation		
Construction – Unmitigated	2.3	< 0.01
Construction – Mitigated	1.0	< 0.01
Operation	6.5	< 0.01
Cumulative – Unmitigated (Construction + Operation)	8.8	-
Cumulative – Mitigated (Construction + Operation)	7.5	-
<i>PCAPCD Threshold</i>	<i>10</i>	<i>1</i>
Exceed?	No	No

Source: Attachment A of this memorandum.

Notes: Data represent maximum health risks at evaluated receptor locations; DPM = diesel particulate matter.

As shown in Table 3, DPM emissions generated by Project construction, operation, and the cumulative total of both would not result in chronic non-cancer or cancer risks that exceed PCAPCD health risk thresholds. The mitigated construction health risk estimates account for reductions in DPM emissions achieved by using Tier 4 Final construction equipment, as required by Mitigation Measure AQ-1 (see Impact AQ-2). However, this mitigation measure is not required to prevent health risks from exceeding the cancer risk threshold.

Naturally Occurring Asbestos

Disturbance of rock and soil that contains (naturally occurring asbestos) NOA can result in consequent exposure to the public. Asbestos most commonly occurs in serpentine rock and its parent material, ultramafic rock. Construction activities in areas known to contain ultramafic rocks may expose workers and the general public to NOA. The 2015 EIR evaluated the potential for construction in Placer County to expose sensitive receptors to NOA.

As described in the 2015 EIR, the Project is located in an area “least likely to contain NOA” according to the *Naturally Occurring Asbestos Hazard* map for Placer County (California Geological Survey 2008). Accordingly, submission of an NOA mitigation plan is not required for the Project, but compliance with PCAPCD Rule 228 would be required.

Impact AQ-5: Creation of objectionable odors affecting a substantial number of people.

Sources of odor during construction include diesel exhaust from construction equipment and asphalt paving. Odors from equipment exhaust would be localized and generally confined to the immediate area surrounding the work site. The Project would involve typical construction techniques, and the equipment odors would be typical of most construction sites and of temporary duration. Potential odors generated during asphalt paving would be addressed through mandatory compliance with PCAPCD Rule 217, which limits the amount of ROG from cutback asphalt.

As described in the 2015 EIR, guidance from the California Air Resources Board (CARB) indicates that land uses typically associated with odor complaints include agricultural activities, wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding facilities (CARB 2005). Operations would not include any uses

typically associated with odors and accordingly would not produce objectionable odors affecting a substantial number of people. Any odors resulting from diesel fuel combustion along the extended track or at the layover facility would be short term, occurring as trains pass by or during periods of idling. Idling time would be minimized, because locomotives and trains would connect to the electric grid for power. Moreover, odors associated with the expanded passenger rail service would be consistent with existing land uses, which include Union Pacific Railroad freight activity, in the Project vicinity.

Accordingly, the Project would not be expected to create objectionable odors affecting a substantial number of people.

CEQA Greenhouse Gas Analysis Results

This section describes the estimated greenhouse gas (GHG) impacts resulting from GHG emissions generated by Project construction and operation as required under CEQA.

Impact GHG-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction

Table 4 summarizes the Project's estimated construction GHG emissions. Detailed model assumptions and outputs are provided in Attachment A to this memorandum.

Table 4. Estimated Construction GHG Emissions (metric tons per year)

Year	CO ₂	CH ₄	N ₂ O	Other	CO ₂ e
2015 EIR					
Year 1	1,716	<1	<1	3	1,739
Year 2	1,675	<1	<1	3	1,698
Year 3 (2015 EIR)	133	<1	<1	<1	135
Roseville Layover	<u>494</u>	<u>≤1</u>	<u>≤1</u>	<u>≤1</u>	<u>508</u>
Total	<u>4,018</u>	<u>≤1</u>	<u>≤1</u>	<u>6</u>	<u>4,080</u>

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalents; other = emissions associated with on road gasoline vehicles, including CO₂, CH₄, N₂O, and HFCs; and SF₆ emissions from electricity usage.

As shown in Table 4, Project construction would result in GHG emissions that would generate approximately 4,080 metric tons of CO₂e over the course of the approximately 12-month Project construction period. This estimate is conservative, because as noted for AQ-2, some unavoidable double counting may occur between these proposed layover facility emissions and the construction emissions from the maintenance facility from the 2015 EIR. As noted in the 2015 EIR, short-term emissions during construction would be offset through long-term GHG savings achieved during operations. This conclusion would still apply to the Project.

Operations

Table 5 summarizes the Project's estimated operational GHG emissions. Detailed model assumptions and outputs are provided in Attachment A to this memorandum. The emissions shown in Table 2 represent the entire Sacramento to Roseville Third Main Track Project with the revised location of the layover facility. The only difference in emissions between what is shown in Table 2 and what is shown in the 2015 EIR is the additional run-time of approximately two minutes that would occur from the revised layover facility location. Idling emissions would remain the same as in the 2015 EIR and are thus not included in Table 5. As noted for Impact AQ-1, the emissions shown in Table 5 are conservative because of the potential overlap between the proposed layover facility emissions and the 2015 EIR maintenance facility emissions, which the proposed layover facility would likely replace.

Table 5. Estimated Net Operational GHG Emissions (metric tons per year)

Source	CO ₂	CH ₄	N ₂ O	Other	CO ₂ e
Existing Conditions (2013)					
Train operation	<u>2,223.4</u>	<u>0.2</u>	<u>0.1</u>	-	<u>2,243.3</u>
Public vehicles	-4,508.2	-	-	-54.1	-4,562.3
Public Buses – Thruway	-20.2	<0.1	<0.1	-	-20.3
Public Buses – Roseville	7.8	<0.1	<0.1	-	7.8
O&M at Roseville Station	28.9	0.1	<0.1	0.1	32.2
Standby Electricity Usage	-80.3	<0.1	<0.1	<0.1	-80.9
Total Net Change	<u>-2,348.8</u>	<u>0.3</u>	<u>0.1</u>	<u>-54.0</u>	<u>-2,380.2</u>
Design Year Conditions (2035)					
Train operation	<u>3,147.9</u>	<u>0.2</u>	<u>0.1</u>	-	<u>3,176.1</u>
Public vehicles	-3,387.8	-	-	-40.7	-3,428.5
Public Buses – Thruway	-18.4	<0.1	<0.1	-	-18.4
Public Buses – Roseville	7.1	<0.1	<0.1	-	7.1
O&M at Roseville Station	18.0	0.1	<0.1	0.1	21.2
Standby Electricity Usage	-36.2	<0.1	<0.1	<0.1	-36.7
O&M at Roseville Layover Facility	<u>95.3</u>	<u>0.3</u>	<u><0.1</u>	-	<u>104.1</u>
Total Net Change	<u>-174.1</u>	<u>0.6</u>	<u>0.1</u>	<u>-40.6</u>	<u>-175.1</u>

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalents; other = emissions associated with on road gasoline vehicles, including CO₂, CH₄, N₂O, and HFCs; and SF₆ emissions from electricity usage.

As shown in Table 5, implementation of the Project would reduce operational GHG emissions under design year conditions. GHG benefits achieved through operation of the Project would offset the short-term construction emissions in approximately 23 years.¹ This timeframe is conservative,

¹ Calculated by dividing short-term construction emissions by the annual long-term emissions savings (4,080 metric tons CO₂e/ 175 metric tons CO₂e per year = 23 years).

however, because of the overlap in emissions described above. In reality, the offset time is likely to be less than this value. Emissions savings achieved thereafter would contribute to reductions in GHG emissions, which would be an environmental benefit. Accordingly, GHG emissions generated by the Project would not exceed any published draft emissions thresholds or the net zero threshold used for this analysis.

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation, including Senate Bill (SB) 32 and Assembly Bill (AB) 1279. In December 2022, CARB adopted its Final 2022 Scoping Plan Update for Achieving Carbon Neutrality (2022 Scoping Plan), which identifies a technologically feasible, cost-effective and equity-focused path to achieve carbon neutrality by 2045, pursuant to AB 1279, as well as the GHG emissions reduction goal called for in SB 32. In addition, SACOG has adopted the 2020 MTP/SCS to reduce transportation-related emissions throughout the region. Consistency with these documents is evaluated below.

CARB's Scoping Plan and SACOG's MTP/SCS include strategies to reduce single-occupancy vehicle usage and to increase alternative transportation (CARB 2022; SACOG 2019). The Project would result in minor additional locomotive travel of approximately two minutes per train, but it would support efforts to expand passenger rail service and accommodate increased ridership, as the proposed layover facility would be used for maintenance of passenger trains. As a result, implementation of the Project would support CARB and SACOG strategies to reduce single-occupancy vehicle usage and increase alternative transportation, as well as attainment of regional and statewide GHG policies and reduction targets.

Impact GHG-3: Subject property and persons to otherwise avoidable physical harm in light of inevitable climate change

Unavoidable climate change may result in a range of potential impacts on the Project vicinity; these include increased temperatures, increased heat events, worsened air quality, increased storm intensity, increased wildland fire frequency or intensity, changes in disease and pest vectors, and changes in water supply. However, the Project would subject property or people to physical harm from climate change effects, beyond the potential evaluated in the 2015 EIR. The Project would not affect ridership and is simply moving the layover facility from one location to another, within the same general area. As such, there is no additional potential for the Project to cause physical harm from climate change. The conclusions of the 2015 EIR for this impact are also applicable to the proposed Project.

NEPA Results

This section describes the estimated air quality impacts from construction and operation of the Project as required under NEPA and demonstrates that the Project would not lead to a violation of the applicable General Conformity *de minimis* thresholds.

Attainment Status

The Project site is located in Placer County in the Sacramento Valley Air Basin, which is designated by U.S. Environmental Protection Agency (USEPA) as nonattainment for the National Ambient Air Quality Standards (NAAQS) for ozone and PM_{2.5}, as shown in Table 6. Nonattainment status indicates that measured concentrations of these pollutants in the region have violated the NAAQS in the past.

Table 6. Federal Criteria Pollutant Attainment Status for the Project Site

Criteria Pollutant	Federal Designation
Ozone	Severe Nonattainment (2008 8-hour standards); Serious Nonattainment (2015 8-hour standard)
PM _{2.5}	Moderate Nonattainment (2006 standard)
CO	Moderate Maintenance
All other pollutants	Attainment

Source: U.S. EPA 2023b.

Project Emissions

Air Quality

Table 7 summarizes the Project's estimated annual construction and operational criteria pollutant emissions, which are compared to the applicable General Conformity *de minimis* thresholds (i.e., the applicable *de minimis* emission levels determined by the attainment status of the Project area).

Table 7. Annual Criteria Pollutant Emissions (tons per year)

Activity/Year	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂
Construction						
2015 EIR						
Year 1	1.7	12.4	8.4	1.3	0.6	<0.1
Year 2	1.6	11.2	8.4	1.2	0.6	<0.1
Year 3	0.2	0.7	0.7	<0.1	<0.1	<0.1
Roseville Layover	<u>0.1</u>	<u>0.7</u>	<u>1.2</u>	<u>2.0</u>	<u>0.2</u>	<u><0.1</u>
Net Emissions (2015 EIR Year 3 + Roseville Layover)	<u>0.3</u>	<u>1.4</u>	<u>1.9</u>	<u>2.0</u>	<u>0.2</u>	<u><0.1</u>
Long-Term Operation (Design Year)	<u>-0.5</u>	<u>5.1</u>	<u>-0.7</u>	<u>-2.0</u>	<u>-0.5</u>	<u><-0.1</u>
<i>De minimis Level</i>	25	25	100	100	100	100
Exceed?	No	No	No	No	No	No

Source: U.S. EPA 2023c; 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO = carbon monoxide; NA = threshold not applicable or no threshold established; NO_x = nitrogen oxide; PM_{2.5} = particulate matter no more than 2.5 microns in diameter; PM₁₀ = particulate matter no more than 10 microns in diameter; SO₂ = sulfur dioxide; ROG = reactive organic gases.

The Project's estimated construction and operational criteria pollutant emissions would be below all thresholds, as shown in Table 7. Based on the estimated emission levels, ambient pollutant

concentrations associated with the Project would not exceed the applicable General Conformity thresholds.

Climate Change

Please refer to the discussion under Impact GHG-1 for a discussion of the Project's GHG emissions. As shown in Table 7, Project construction would generate approximately 4,080 metric tons of CO₂e during the 12-month construction period. However, long-term operation of the Project would reduce GHG emissions under design year conditions. GHG benefits achieved through operation of the Build Alternative would offset the short-term construction emissions in approximately 23 years. Emissions savings achieved thereafter would contribute to reductions in GHG emissions. Accordingly, the Project would result in an eventual beneficial impact on GHG emissions.

Please refer to the discussion under Impact GHG-3 for a discussion of the Project's potential to result in significant increased risk to people or structures from climate change. As discussed in Impact GHG-3, the Build Alternative would not result in significant increased risk to people or structures from climate change.

Summary

For air quality, the estimated criteria pollutant emission generated by Project construction would be below applicable PCAPCD thresholds with the implementation of Mitigation Measure AQ-1, which requires the reduction of NO_x emissions to a level below the applicable PCAPCD threshold through the use of Tier 4 Final equipment or the purchase of NO_x credits to offset remaining NO_x construction emissions exceeding PCAPCD thresholds. In addition, the Project's operational criteria pollutant emissions would be below PCAPCD's significance thresholds. Thus, with mitigation, the Project's construction and operational criteria pollutant emissions would not exceed the applicable PCAPCD CEQA significance thresholds and would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. Compared to the Project's impacts identified in the November 2015 Final EIR, the changes associated with the Roseville layover design would not be substantially more severe than those analyzed in 2015 with the incorporation of mitigation.

For GHG emissions, implementation of the Project would result in net negative operational GHG emissions under design year conditions, and GHG benefits achieved through operation of the Project would eventually offset the short-term construction emissions. Emissions savings achieved thereafter would contribute to reductions in GHG emissions resulting in an environmental benefit. Accordingly, GHG emissions generated by the Project would not exceed any published draft emissions thresholds or the net zero threshold used for this analysis. Compared to the Project's impacts identified in the November 2015 Final EIR, the changes associated with the Roseville layover design would not be substantially more severe than those analyzed in 2015.

For NEPA considerations, the Project would not be expected to exceed the *de minimis* thresholds during either construction or operation. Therefore, the Project would result in no adverse air quality effects under NEPA.

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Attachment A

Modeling Outputs and Detailed Assumptions

This attachment includes the components listed below.

- Six sets of CalEEMod modeling outputs:
 - Unmitigated annual emissions generated by construction of the layover facility (identified with the phase “Unmitigated Annual” on the first page of the applicable output tables);
 - Mitigated annual emissions generated by construction of the layover facility (identified with the term “Mitigated Annual” on the first page of the applicable output tables);
 - Unmitigated maximum daily emissions generated by construction of the layover facility (identified with the term “Unmitigated Max Daily” on the first page of the applicable output tables);
 - Mitigated maximum daily emissions generated by construction of the layover facility (identified with the term “Mitigated Max Daily” on the first page of the applicable output tables);
 - Unmitigated annual emissions generated by the use of ballast-hauling locomotives during Project construction (identified with the term “Unmitigated Locomotive” on the first page of the applicable output tables); and
 - Mitigated annual emissions generated by the use of ballast-hauling locomotives during Project construction (identified with the term “Mitigated Locomotive” on the first page of the applicable output tables).
- A Microsoft Excel Workbook containing operational locomotive emissions modeling.
- A Microsoft Excel Workbook containing health risk assessment parameters, modeling results, and risk calculations.

Roseville Layover Unmitigated Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Unmitigated
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.756638691082856, -121.27398577092818
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
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Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	—	—	—
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	—	—	—

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.43	6.07	24.4	25.9	0.07	0.76	37.3	38.0	0.71	4.02	4.73	—	8,875	8,875	0.27	0.50	8.79	9,039
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.55	4.08	6.32	5.34	0.03	0.14	37.5	37.6	0.13	4.26	4.39	—	3,910	3,910	0.07	0.46	0.17	4,050
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.31	0.77	3.94	3.43	0.01	0.10	9.66	9.77	0.10	1.09	1.18	—	1,619	1,619	0.04	0.13	0.90	1,661
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.14	0.72	0.63	< 0.005	0.02	1.76	1.78	0.02	0.20	0.22	—	268	268	0.01	0.02	0.15	275

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.45	0.36	5.27	4.11	0.02	0.12	31.3	31.4	0.11	3.59	3.70	—	3,344	3,344	0.06	0.41	5.96	3,472
2028	2.43	6.07	24.4	25.9	0.07	0.76	37.3	38.0	0.71	4.02	4.73	—	8,875	8,875	0.27	0.50	8.79	9,039
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.43	0.35	5.56	3.75	0.02	0.12	31.3	31.4	0.11	3.59	3.70	—	3,307	3,307	0.06	0.42	0.15	3,433
2028	0.55	4.08	6.32	5.34	0.03	0.14	37.5	37.6	0.13	4.26	4.39	—	3,910	3,910	0.07	0.46	0.17	4,050
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.13	0.10	1.64	1.13	0.01	0.04	9.36	9.39	0.03	1.07	1.11	—	992	992	0.02	0.12	0.77	1,031
2028	0.31	0.77	3.94	3.43	0.01	0.10	9.66	9.77	0.10	1.09	1.18	—	1,619	1,619	0.04	0.13	0.90	1,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.02	0.02	0.30	0.21	< 0.005	0.01	1.71	1.71	0.01	0.20	0.20	—	164	164	< 0.005	0.02	0.13	171
2028	0.06	0.14	0.72	0.63	< 0.005	0.02	1.76	1.78	0.02	0.20	0.22	—	268	268	0.01	0.02	0.15	275

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7

Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	—	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.75	1.87	< 0.005	0.07	—	0.07	0.07	—	0.07	—	455	455	0.02	< 0.005	—	456
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.75	1.87	< 0.005	0.07	—	0.07	0.07	—	0.07	—	455	455	0.02	< 0.005	—	456
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	136	136	0.01	< 0.005	—	137

Dust From Material Movement	—	—	—	—	—	—	0.23	0.23	—	0.11	0.11	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.5	22.5	< 0.005	< 0.005	—	22.6
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.67	1.87	< 0.005	0.07	—	0.07	0.07	—	0.07	—	454	454	0.02	< 0.005	—	456
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.03	0.29	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.0	80.0	< 0.005	< 0.005	—	80.3
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6

Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.48	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.48	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.1
Architectural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.32	2.32	< 0.005	< 0.005	—	2.33
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7

Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.14	9.92	11.4	0.03	0.42	—	0.42	0.39	—	0.39	—	2,749	2,749	0.11	0.02	—	2,758
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	—	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.60	0.69	< 0.005	0.03	—	0.03	0.02	—	0.02	—	166	166	0.01	< 0.005	—	166
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.11	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.82	10.1	7.51	0.02	0.28	—	0.28	0.26	—	0.26	—	1,894	1,894	0.11	0.03	—	1,905
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	—	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.15	1.83	1.36	< 0.005	0.05	—	0.05	0.05	—	0.05	—	343	343	0.02	0.01	—	345
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.03	0.33	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.7	56.7	< 0.005	< 0.005	—	57.0
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NO _x	CO	SO ₂	PM _{10E}	PM _{10D}	PM _{10T}	PM _{2.5E}	PM _{2.5D}	PM _{2.5T}	BCO ₂	NBCO ₂	CO _{2T}	CH ₄	N ₂ O	R	CO _{2e}
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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 Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	—
Structures	Building Construction	3/1/2028	5/1/2028	5.00	44.0	—
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	—
Track and Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	—

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 Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	0.06	50.0	0.42

Site Work: Grading and Earthwork	Tractors/Loaders/Backhoes	Diesel	Average	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	0.90	160	0.43
Structures	Other Construction Equipment	Diesel	Average	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Average	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Average	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	5.06	275	0.38
Roadway Work	Paving Equipment	Diesel	Average	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	5.06	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.55	160	0.42
Track and Signal Work	Rubber Tired Loaders	Diesel	Average	1.00	0.97	250	0.36
Track and Signal Work	Tractors/Loaders/Backhoes	Diesel	Average	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	6.00	0.07	75.0	0.42

Track and Signal Work	Other Construction Equipment	Diesel	Average	4.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Average	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Average	4.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	8.00	0.52	100	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	8.00	0.52	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.73	300	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures	—	—	—	—
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2

Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT
Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	—	—	—	—
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	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)
Structures	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
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Site Work: Grading and Earthwork	12,783	27,225	13.3	1,000	—
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track and Signal Work	11,690	—	3.20	0.00	—

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
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
0	0.00	12,000	4,000	24,306

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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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
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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
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

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
—	—

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6

Unemployment	64.5
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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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727
Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	—
Homeownership	54.45912999

Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	—
Hardship	35.6
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 3 locomotive.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover Mitigated v4 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Mitigated v4
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.756638691082856, -121.27398577092818
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
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Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	—	—	—
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.05	6.61	16.3	27.9	0.06	0.53	37.3	37.8	0.50	4.02	4.51	—	8,867	8,867	0.27	0.50	8.79	9,031
Mit.	0.91	5.07	6.63	30.4	0.06	0.13	21.7	21.9	0.13	2.47	2.60	—	8,509	8,509	0.24	0.49	8.79	8,669
% Reduced	56%	23%	59%	-9%	6%	75%	42%	42%	73%	39%	42%	—	4%	4%	11%	2%	—	4%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	4.02	5.89	6.00	0.03	0.12	37.5	37.6	0.11	4.26	4.37	—	3,908	3,908	0.07	0.46	0.17	4,049

Mit.	0.32	3.89	4.53	5.98	0.03	0.06	21.5	21.5	0.06	2.47	2.53	—	3,908	3,908	0.07	0.46	0.17	4,049
% Reduced	33%	3%	23%	< 0.5%	—	49%	43%	43%	47%	42%	42%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.86	2.41	3.91	0.01	0.06	9.66	9.72	0.06	1.09	1.14	—	1,618	1,618	0.04	0.13	0.90	1,660
Mit.	0.14	0.67	1.54	3.89	0.01	0.02	5.59	5.61	0.02	0.65	0.67	—	1,553	1,553	0.04	0.13	0.90	1,594
% Reduced	40%	22%	36%	1%	—	57%	42%	42%	55%	40%	41%	—	4%	4%	12%	1%	—	4%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.16	0.44	0.71	< 0.005	0.01	1.76	1.77	0.01	0.20	0.21	—	268	268	0.01	0.02	0.15	275
Mit.	0.03	0.12	0.28	0.71	< 0.005	< 0.005	1.02	1.02	< 0.005	0.12	0.12	—	257	257	0.01	0.02	0.15	264
% Reduced	40%	22%	36%	1%	6%	57%	42%	42%	55%	40%	41%	—	4%	4%	12%	1%	—	4%

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.38	0.31	4.81	4.78	0.02	0.10	31.3	31.3	0.09	3.59	3.68	—	3,342	3,342	0.06	0.41	5.96	3,470
2028	2.05	6.61	16.3	27.9	0.06	0.53	37.3	37.8	0.50	4.02	4.51	—	8,867	8,867	0.27	0.50	8.79	9,031
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.36	0.29	5.10	4.42	0.02	0.10	31.3	31.3	0.09	3.59	3.68	—	3,306	3,306	0.06	0.42	0.15	3,431
2028	0.48	4.02	5.89	6.00	0.03	0.12	37.5	37.6	0.11	4.26	4.37	—	3,908	3,908	0.07	0.46	0.17	4,049

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.11	0.09	1.50	1.33	0.01	0.03	9.36	9.39	0.03	1.07	1.10	—	992	992	0.02	0.12	0.77	1,030
2028	0.23	0.86	2.41	3.91	0.01	0.06	9.66	9.72	0.06	1.09	1.14	—	1,618	1,618	0.04	0.13	0.90	1,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.02	0.02	0.27	0.24	< 0.005	0.01	1.71	1.71	0.01	0.20	0.20	—	164	164	< 0.005	0.02	0.13	171
2028	0.04	0.16	0.44	0.71	< 0.005	0.01	1.76	1.77	0.01	0.20	0.21	—	268	268	0.01	0.02	0.15	275

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.26	0.21	3.76	4.69	0.02	0.05	17.8	17.9	0.05	2.06	2.12	—	3,342	3,342	0.06	0.41	5.96	3,470
2028	0.91	5.07	6.63	30.4	0.06	0.13	21.7	21.9	0.13	2.47	2.60	—	8,509	8,509	0.24	0.49	8.79	8,669
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.24	0.20	4.05	4.34	0.02	0.05	17.8	17.9	0.05	2.06	2.12	—	3,306	3,306	0.06	0.42	0.15	3,431
2028	0.32	3.89	4.53	5.98	0.03	0.06	21.5	21.5	0.06	2.47	2.53	—	3,908	3,908	0.07	0.46	0.17	4,049
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07	0.06	1.18	1.30	0.01	0.02	5.34	5.36	0.02	0.62	0.63	—	992	992	0.02	0.12	0.77	1,030
2028	0.14	0.67	1.54	3.89	0.01	0.02	5.59	5.61	0.02	0.65	0.67	—	1,553	1,553	0.04	0.13	0.90	1,594
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.01	0.01	0.22	0.24	< 0.005	< 0.005	0.98	0.98	< 0.005	0.11	0.12	—	164	164	< 0.005	0.02	0.13	171
2028	0.03	0.12	0.28	0.71	< 0.005	< 0.005	1.02	1.02	< 0.005	0.12	0.12	—	257	257	0.01	0.02	0.15	264

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	—	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230

Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	—	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.28	2.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.28	2.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.76	< 0.005	0.02	—	0.02	0.01	—	0.01	—	136	136	0.01	< 0.005	—	136
Dust From Material Movement	—	—	—	—	—	—	0.23	0.23	—	0.11	0.11	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.4	22.4	< 0.005	< 0.005	—	22.5
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288

Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.2. Grading (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.23	2.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.15	0.15	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	85.3	85.3	< 0.005	0.01	0.13	89.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.23	2.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.15	0.15	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	136	136	0.01	< 0.005	—	136
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	4.93	4.93	< 0.005	0.49	0.49	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.4	22.4	< 0.005	< 0.005	—	22.5
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.90	0.90	< 0.005	0.09	0.09	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.24	2.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	79.7	79.7	< 0.005	< 0.005	—	80.0
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.2	13.2	< 0.005	< 0.005	—	13.2
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—

Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.4. Grading (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.23	2.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	453	453	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.15	0.15	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	79.7	79.7	< 0.005	< 0.005	—	80.0
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.90	2.90	< 0.005	0.29	0.29	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.2	13.2	< 0.005	< 0.005	—	13.2
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.53	0.53	< 0.005	0.05	0.05	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.05	0.48	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.48	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.1
Architect ural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.32	2.32	< 0.005	< 0.005	—	2.33
Architect ural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.12	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	117
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.1
Architect ural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.40	0.40	< 0.005	0.04	0.04	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.32	2.32	< 0.005	< 0.005	—	2.33
Architect ural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.36	1.14	9.92	11.4	0.03	0.42	—	0.42	0.39	—	0.39	—	2,749	2,749	0.11	0.02	—	2,758
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	—	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.60	0.69	< 0.005	0.03	—	0.03	0.02	—	0.02	—	166	166	0.01	< 0.005	—	166
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.26	1.35	15.2	0.03	0.05	—	0.05	0.05	—	0.05	—	2,749	2,749	0.11	0.02	—	2,758
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	9.88	9.88	< 0.005	0.99	0.99	—	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.08	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	166	166	0.01	< 0.005	—	166
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.35	2.06	9.51	0.02	0.04	—	0.04	0.04	—	0.04	—	1,887	1,887	0.11	0.03	—	1,898
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	—	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.24	0.37	1.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	341	341	0.02	0.01	—	343
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.07	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	56.5	56.5	< 0.005	< 0.005	—	56.8
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

3.10. Trenching (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.73	1.32	8.17	0.01	0.03	—	0.03	0.03	—	0.03	—	1,528	1,528	0.08	0.02	—	1,536

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	6.58	6.59	< 0.005	0.66	0.66	—	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.13	0.24	1.48	< 0.005	0.01	—	0.01	0.01	—	0.01	—	276	276	0.01	< 0.005	—	278
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.19	1.19	< 0.005	0.12	0.12	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.04	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.7	45.7	< 0.005	< 0.005	—	46.0
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	422	422	0.02	0.02	0.03	429
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	53.9	53.9	< 0.005	< 0.005	0.06	54.8

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56

Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6
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4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.3.1. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.4.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

4.5.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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 Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	—

Structures	Building Construction	3/1/2028	5/1/2028	5.00	44.0	—
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	—
Track and Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	—

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 Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Tractors/Loaders/Backhoes	Diesel	Average	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.06	50.0	0.42
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.90	160	0.42
Structures	Other Construction Equipment	Diesel	Average	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Average	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Average	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	5.06	275	0.38

Roadway Work	Paving Equipment	Diesel	Average	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	5.06	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.55	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.73	300	0.42
Track and Signal Work	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Tier 4 Final	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	0.52	100	0.42

Track and Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	0.97	250	0.36
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	0.52	75.0	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.06	50.0	0.42
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.90	160	0.42
Structures	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Tier 4 Final	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	5.06	275	0.38
Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	5.06	170	0.42

Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.55	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.73	300	0.42
Track and Signal Work	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	5.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	3.00	0.07	200	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Tier 4 Final	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	3.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	350	0.42

Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	7.00	0.52	100	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.52	100	0.42
Track and Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	0.97	250	0.36
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	7.00	0.52	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.52	75.0	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT

Structures	—	—	—	—
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT
Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	—	—	—	—
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures	—	—	—	—
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT

Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	—	—	—	—
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	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)
Structures	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Site Work: Grading and Earthwork	12,783	27,225	13.3	1,000	—

Roadway Work	0.00	0.00	0.00	0.00	2.50
Track and Signal Work	11,690	—	3.20	0.00	—

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
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
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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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.11.2. Mitigated

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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
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5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

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
—	—

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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5.18.1.2. Mitigated

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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5.18.1.2. Mitigated

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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5.18.2.2. Mitigated

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6

Unemployment	64.5
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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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727
Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	—
Homeownership	54.45912999

Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	—
Hardship	35.6
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 4 locomotive.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover - Max Daily Unmit Detailed Report

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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover - Max Daily Unmit
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75695399967785, -121.27424308615056
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
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Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	—	—	—
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	—	—	—

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9	21.7	227	163	0.39	6.09	37.3	43.3	5.75	5.35	9.77	—	42,609	42,609	2.27	1.05	8.79	42,988
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.42	5.65	19.7	18.8	0.05	0.79	41.1	41.9	0.73	6.01	6.74	—	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.01	3.74	41.7	29.1	0.07	1.14	10.5	11.4	1.07	1.60	2.47	—	7,855	7,855	0.41	0.24	0.90	7,937
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	0.68	7.60	5.30	0.01	0.21	1.91	2.09	0.20	0.29	0.45	—	1,301	1,301	0.07	0.04	0.15	1,314

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.07	1.72	17.2	15.4	0.05	0.68	34.9	35.6	0.63	5.35	5.98	—	6,086	6,086	0.17	0.43	5.96	6,223
2028	10.9	21.7	227	163	0.39	6.09	37.3	43.3	5.75	4.02	9.77	—	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.05	1.71	17.5	15.1	0.05	0.68	34.9	35.6	0.63	5.35	5.98	—	6,050	6,050	0.17	0.44	0.15	6,185
2028	2.42	5.65	19.7	18.8	0.05	0.79	41.1	41.9	0.73	6.01	6.74	—	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.62	0.51	5.21	4.52	0.01	0.20	10.5	10.7	0.19	1.60	1.79	—	1,813	1,813	0.05	0.13	0.77	1,855
2028	2.01	3.74	41.7	29.1	0.07	1.14	10.3	11.4	1.07	1.40	2.47	—	7,855	7,855	0.41	0.24	0.90	7,937
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.11	0.09	0.95	0.82	< 0.005	0.04	1.91	1.95	0.03	0.29	0.33	—	300	300	0.01	0.02	0.13	307
2028	0.37	0.68	7.60	5.30	0.01	0.21	1.88	2.09	0.20	0.25	0.45	—	1,301	1,301	0.07	0.04	0.15	1,314

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7

Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.85	1.55	13.7	13.2	0.03	0.64	—	0.64	0.59	—	0.59	—	3,197	3,197	0.13	0.03	—	3,208
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.85	1.55	13.7	13.2	0.03	0.64	—	0.64	0.59	—	0.59	—	3,197	3,197	0.13	0.03	—	3,208
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.47	4.10	3.95	0.01	0.19	—	0.19	0.18	—	0.18	—	957	957	0.04	0.01	—	960

Dust From Material Movement	—	—	—	—	—	—	1.33	1.33	—	0.64	0.64	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.75	0.72	< 0.005	0.03	—	0.03	0.03	—	0.03	—	158	158	0.01	< 0.005	—	159
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.12	0.12	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.93	1.62	13.7	13.3	0.03	0.67	—	0.67	0.62	—	0.62	—	3,196	3,196	0.13	0.03	—	3,207
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.34	0.29	2.41	2.35	0.01	0.12	—	0.12	0.11	—	0.11	—	563	563	0.02	< 0.005	—	565
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.44	0.43	< 0.005	0.02	—	0.02	0.02	—	0.02	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6

Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.19	1.86	2.79	< 0.005	0.07	—	0.07	0.06	—	0.06	—	417	417	0.02	< 0.005	—	418
Architectural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.19	1.86	2.79	< 0.005	0.07	—	0.07	0.06	—	0.06	—	417	417	0.02	< 0.005	—	418
Architectural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	50.3	50.3	< 0.005	< 0.005	—	50.4
Architect ural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.32	8.32	< 0.005	< 0.005	—	8.35
Architect ural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7

Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.44	2.05	17.2	20.2	0.05	0.69	—	0.69	0.64	—	0.64	—	5,475	5,475	0.22	0.04	—	5,494
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	—	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.04	1.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	330	330	0.01	< 0.005	—	331
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	54.6	54.6	< 0.005	< 0.005	—	54.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.74	15.4	204	134	0.32	5.28	—	5.28	5.00	—	5.00	—	32,601	32,601	1.98	0.56	—	32,817
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	—	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	2.79	36.8	24.2	0.06	0.96	—	0.96	0.90	—	0.90	—	5,895	5,895	0.36	0.10	—	5,934
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.51	6.72	4.42	0.01	0.17	—	0.17	0.17	—	0.17	—	976	976	0.06	0.02	—	982
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NO _x	CO	SO ₂	PM _{10E}	PM _{10D}	PM _{10T}	PM _{2.5E}	PM _{2.5D}	PM _{2.5T}	BCO ₂	NBCO ₂	CO _{2T}	CH ₄	N ₂ O	R	CO _{2e}
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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 Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	—
Structures Work	Building Construction	3/1/2028	5/1/2028	5.00	44.0	—
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	—
Track & Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	—

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 Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	5.00	50.0	0.42

Site Work: Grading and Earthwork	Tractors/Loaders/Backh	Diesel	Average	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	5.00	160	0.43
Structures Work	Other Construction Equipment	Diesel	Average	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Average	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	8.00	275	0.38
Roadway Work	Paving Equipment	Diesel	Average	1.00	6.00	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	160	0.42
Track & Signal Work	Rubber Tired Loaders	Diesel	Average	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backh oes	Diesel	Average	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	6.00	6.00	75.0	0.42

Track & Signal Work	Other Construction Equipment	Diesel	Average	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Average	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Average	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	225	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	8.00	6.00	100	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	8.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	300	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	—	—	—	—
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2

Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	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)
Structures Work	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
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Site Work: Grading and Earthwork	12,783	27,225	109	1,000	—
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track & Signal Work	11,690	—	3.20	0.00	—

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
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
0	0.00	12,000	4,000	24,306

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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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
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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
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

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
—	—

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6

Unemployment	64.5
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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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727
Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	—
Homeownership	54.45912999

Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	—
Hardship	35.6
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Based on data from EPA and Port of Long Beach.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Mitigated Max Daily

Roseville Layover - Max Daily Mit Detailed Report

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7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover - Max Daily Mit
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75695399967785, -121.27424308615056
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
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Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	—	—	—
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.65	8.93	47.8	197	0.39	0.96	37.3	38.2	0.96	5.35	5.45	—	42,609	42,609	2.27	1.05	8.79	42,988
Mit.	2.65	8.93	47.8	197	0.39	0.96	21.7	22.7	0.96	2.75	3.42	—	42,609	42,609	2.27	1.05	8.79	42,988
% Reduced	—	—	—	—	—	—	42%	41%	—	49%	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	4.20	7.20	23.1	0.05	0.12	41.1	41.2	0.12	6.01	6.13	—	6,953	6,953	0.19	0.49	0.17	7,103
Mit.	0.63	4.20	7.20	23.1	0.05	0.12	22.9	23.0	0.12	3.16	3.28	—	6,953	6,953	0.19	0.49	0.17	7,103

% Reduced	—	—	—	—	—	—	44%	44%	—	47%	47%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	1.39	9.19	34.8	0.07	0.18	10.5	10.5	0.18	1.60	1.63	—	7,855	7,855	0.41	0.24	0.90	7,937
Mit.	0.47	1.39	9.19	34.8	0.07	0.18	5.84	6.02	0.18	0.82	0.94	—	7,855	7,855	0.41	0.24	0.90	7,937
% Reduced	—	—	—	—	—	—	44%	43%	—	49%	42%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.25	1.68	6.36	0.01	0.03	1.91	1.91	0.03	0.29	0.30	—	1,301	1,301	0.07	0.04	0.15	1,314
Mit.	0.09	0.25	1.68	6.36	0.01	0.03	1.07	1.10	0.03	0.15	0.17	—	1,301	1,301	0.07	0.04	0.15	1,314
% Reduced	—	—	—	—	—	—	44%	43%	—	49%	42%	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.53	0.48	6.01	19.7	0.05	0.10	34.9	35.0	0.10	5.35	5.45	—	6,086	6,086	0.17	0.43	5.96	6,223
2028	2.65	8.93	47.8	197	0.39	0.96	37.3	38.2	0.96	4.02	4.97	—	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.52	0.47	6.30	19.4	0.05	0.10	34.9	35.0	0.10	5.35	5.45	—	6,050	6,050	0.17	0.44	0.15	6,185
2028	0.63	4.20	7.20	23.1	0.05	0.12	41.1	41.2	0.12	6.01	6.13	—	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.16	0.14	1.86	5.80	0.01	0.03	10.5	10.5	0.03	1.60	1.63	—	1,813	1,813	0.05	0.13	0.77	1,855
2028	0.47	1.39	9.19	34.8	0.07	0.18	10.3	10.5	0.18	1.40	1.57	—	7,855	7,855	0.41	0.24	0.90	7,937
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03	0.03	0.34	1.06	< 0.005	0.01	1.91	1.91	0.01	0.29	0.30	—	300	300	0.01	0.02	0.13	307
2028	0.09	0.25	1.68	6.36	0.01	0.03	1.88	1.91	0.03	0.25	0.29	—	1,301	1,301	0.07	0.04	0.15	1,314

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.53	0.48	6.01	19.7	0.05	0.10	19.3	19.4	0.10	2.75	2.85	—	6,086	6,086	0.17	0.43	5.96	6,223
2028	2.65	8.93	47.8	197	0.39	0.96	21.7	22.7	0.96	2.47	3.42	—	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.52	0.47	6.30	19.4	0.05	0.10	19.3	19.4	0.10	2.75	2.85	—	6,050	6,050	0.17	0.44	0.15	6,185
2028	0.63	4.20	7.20	23.1	0.05	0.12	22.9	23.0	0.12	3.16	3.28	—	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.16	0.14	1.86	5.80	0.01	0.03	5.77	5.80	0.03	0.82	0.85	—	1,813	1,813	0.05	0.13	0.77	1,855
2028	0.47	1.39	9.19	34.8	0.07	0.18	5.84	6.02	0.18	0.77	0.94	—	7,855	7,855	0.41	0.24	0.90	7,937
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03	0.03	0.34	1.06	< 0.005	0.01	1.05	1.06	0.01	0.15	0.16	—	300	300	0.01	0.02	0.13	307
2028	0.09	0.25	1.68	6.36	0.01	0.03	1.07	1.10	0.03	0.14	0.17	—	1,301	1,301	0.07	0.04	0.15	1,314

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Area	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.02	< 0.005	—	230
Water	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.9	37.9	< 0.005	< 0.005	—	38.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Waste	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,197	3,197	0.13	0.03	—	3,208
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,197	3,197	0.13	0.03	—	3,208
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.74	5.23	0.01	0.02	—	0.02	0.02	—	0.02	—	957	957	0.04	0.01	—	960

Dust From Material Movement	—	—	—	—	—	—	1.33	1.33	—	0.64	0.64	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.95	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	158	158	0.01	< 0.005	—	159
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.12	0.12	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.2. Grading (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,197	3,197	0.13	0.03	—	3,208
Dust From Material Movement	—	—	—	—	—	—	1.73	1.73	—	0.84	0.84	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,197	3,197	0.13	0.03	—	3,208

Dust From Material Movement:	—	—	—	—	—	—	1.73	1.73	—	0.84	0.84	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.74	5.23	0.01	0.02	—	0.02	0.02	—	0.02	—	957	957	0.04	0.01	—	960
Dust From Material Movement:	—	—	—	—	—	—	0.52	0.52	—	0.25	0.25	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	4.93	4.93	< 0.005	0.49	0.49	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.95	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	158	158	0.01	< 0.005	—	159
Dust From Material Movement:	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.90	0.90	< 0.005	0.09	0.09	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,825	1,825	0.03	0.29	0.09	1,912
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	546	546	0.01	0.09	0.44	573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,196	3,196	0.13	0.03	—	3,207
Dust From Material Movement	—	—	—	—	—	—	4.45	4.45	—	2.14	2.14	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.44	3.08	0.01	0.01	—	0.01	0.01	—	0.01	—	563	563	0.02	< 0.005	—	565
Dust From Material Movement	—	—	—	—	—	—	0.78	0.78	—	0.38	0.38	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.4. Grading (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.32	2.49	17.5	0.03	0.06	—	0.06	0.06	—	0.06	—	3,196	3,196	0.13	0.03	—	3,207

Dust From Material Movement:	—	—	—	—	—	—	1.73	1.73	—	0.84	0.84	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	—	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.44	3.08	0.01	0.01	—	0.01	0.01	—	0.01	—	563	563	0.02	< 0.005	—	565
Dust From Material Movement:	—	—	—	—	—	—	0.31	0.31	—	0.15	0.15	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.90	2.90	< 0.005	0.29	0.29	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Dust From Material Movement:	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.53	0.53	< 0.005	0.05	0.05	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	313	313	< 0.005	0.05	0.24	328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.54	2.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	417	417	0.02	< 0.005	—	418
Architectural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.54	2.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	417	417	0.02	< 0.005	—	418
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.3	50.3	< 0.005	< 0.005	—	50.4
Architect ural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.32	8.32	< 0.005	< 0.005	—	8.35
Architect ural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.54	2.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	417	417	0.02	< 0.005	—	418
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	—	16.6	16.6	< 0.005	< 0.005	0.02	17.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.54	2.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	417	417	0.02	< 0.005	—	418
Architect ural Coatings	—	3.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	—	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.3	50.3	< 0.005	< 0.005	—	50.4
Architect ural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.40	0.40	< 0.005	0.04	0.04	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.32	8.32	< 0.005	< 0.005	—	8.35
Architect ural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.52	2.70	29.6	0.05	0.10	—	0.10	0.10	—	0.10	—	5,475	5,475	0.22	0.04	—	5,494
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	—	49.9	49.9	< 0.005	0.01	0.07	52.4

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.16	1.79	< 0.005	0.01	—	0.01	0.01	—	0.01	—	330	330	0.01	< 0.005	—	331
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.03	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.6	54.6	< 0.005	< 0.005	—	54.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.52	2.70	29.6	0.05	0.10	—	0.10	0.10	—	0.10	—	5,475	5,475	0.22	0.04	—	5,494
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	9.88	9.88	< 0.005	0.99	0.99	—	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.16	1.79	< 0.005	0.01	—	0.01	0.01	—	0.01	—	330	330	0.01	< 0.005	—	331
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.03	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.6	54.6	< 0.005	< 0.005	—	54.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	—	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.56	4.30	40.7	158	0.32	0.80	—	0.80	0.80	—	0.80	—	32,601	32,601	1.98	0.56	—	32,817
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	—	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.78	7.36	28.7	0.06	0.14	—	0.14	0.14	—	0.14	—	5,895	5,895	0.36	0.10	—	5,934
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.14	1.34	5.23	0.01	0.03	—	0.03	0.03	—	0.03	—	976	976	0.06	0.02	—	982
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634

Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

3.10. Trenching (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	4.30	40.7	158	0.32	0.80	—	0.80	0.80	—	0.80	—	32,601	32,601	1.98	0.56	—	32,817
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	6.58	6.59	< 0.005	0.66	0.66	—	33.3	33.3	< 0.005	0.01	0.05	34.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.78	7.36	28.7	0.06	0.14	—	0.14	0.14	—	0.14	—	5,895	5,895	0.36	0.10	—	5,934
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.19	1.19	< 0.005	0.12	0.12	—	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.14	1.34	5.23	0.01	0.03	—	0.03	0.03	—	0.03	—	976	976	0.06	0.02	—	982
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	—	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	—	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	< 0.005	0.02	0.12	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	0.02	26.2

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	—	450	450	0.02	0.02	0.03	458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	57.5	57.5	< 0.005	< 0.005	0.06	58.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.38	3.38	< 0.005	< 0.005	—	3.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.02	< 0.005	—	149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	< 0.005	< 0.005	—	24.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5	< 0.005	< 0.005	—	24.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.3.1. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	—	1.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.4.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	2.72	3.95	6.68	0.28	0.01	—	15.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.45	0.65	1.11	0.05	< 0.005	—	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

4.5.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.23	0.00	2.23	0.22	0.00	—	7.82

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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 Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	—

Structures Work	Building Construction	3/1/2028	5/1/2028	5.00	44.0	—
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	—
Track & Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	—

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 Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	160	0.43
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	50.0	0.42
Site Work: Grading and Earthwork	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	8.00	275	0.38

Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	6.00	630	0.36
Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	300	0.45
Track & Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Tier 4 Final	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	225	0.42

Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	100	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	75.0	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	160	0.43
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	50.0	0.42
Site Work: Grading and Earthwork	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	8.00	275	0.38
Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	6.00	630	0.36

Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	300	0.45
Track & Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Tier 4 Final	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	225	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	100	0.42

Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	75.0	0.42
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5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	—	—	—	—
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	—	—	—	—
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	—	—	—	—
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	—	—	—	—
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	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)
Structures Work	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Site Work: Grading and Earthwork	12,783	27,225	109	1,000	—
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track & Signal Work	11,690	—	3.20	0.00	—

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
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
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2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.11.2. Mitigated

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)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00

General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Office Building	25.0	—
Parking Lot	0.00	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

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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5.18.1.2. Mitigated

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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5.18.1.2. Mitigated

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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5.18.2.2. Mitigated

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2

Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6

Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6
Unemployment	64.5

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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727

Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	—
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4

Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	7.5
Current Smoker	49.4
No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	—
Hardship	35.6
Other Decision Support	—

2016 Voting	75.9
-------------	------

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Based on data from EPA and Port of Long Beach.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.

Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover Off-Site Locomotive - Construction Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Off-Site Locomotive - Construction
Construction Start Date	8/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75690813656374, -121.27417374770475
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—

Other Non-Asphalt Surfaces	9.20	Acre	9.20	9.50	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.10	0.00	—	—	—

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	22.3	367	149	0.41	6.52	0.00	6.52	6.36	0.00	6.36	—	39,845	39,845	3.26	1.06	0.00	40,242
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.24	4.02	1.63	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	—	437	437	0.04	0.01	0.00	441
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.04	0.73	0.30	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	72.3	72.3	0.01	< 0.005	0.00	73.0

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2028	0.00	22.3	367	149	0.41	6.52	0.00	6.52	6.36	0.00	6.36	—	39,845	39,845	3.26	1.06	0.00	40,242
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.24	4.02	1.63	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	—	437	437	0.04	0.01	0.00	441
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.04	0.73	0.30	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	72.3	72.3	0.01	< 0.005	0.00	73.0

3. Construction Emissions Details

3.1. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	22.3	367	149	0.41	6.52	—	6.52	6.36	—	6.36	—	39,845	39,845	3.26	1.06	—	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.24	4.02	1.63	< 0.005	0.07	—	0.07	0.07	—	0.07	—	437	437	0.04	0.01	—	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.04	0.73	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.3	72.3	0.01	< 0.005	—	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Track & Signal Work	Trenching	5/1/2028	5/4/2028	5.00	4.00	—

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
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	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)
------------	--	--	--	--	-----------------------------

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)
------------	------------------------	------------------------	----------------------	-------------------------------	---------------------

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
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	2.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	0.00	0.00	0.00

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)
-----------	--------	------------------------------	------------------------------

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—

CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6
Unemployment	64.5

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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505

Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727
Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	—
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8

Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	7.5
Current Smoker	49.4
No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4

Other Indices	—
Hardship	35.6
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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	Construction schedule provided by project applicant. Run only includes off-site locomotive operation.
Construction: Off-Road Equipment	Construction equipment list provided by project applicant.
Land Use	Based on applicant-provided data.

Operations: Water and Waste Water	Based on applicant-provided data.
Operations: Solid Waste	Based on applicant-provided data.
Operations: Energy Use	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Run only includes off-site locomotive operation.
Construction: Electricity	Run only includes off-site locomotive operation.
Construction: Dust From Material Movement	Run only includes off-site locomotive operation.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 3 locomotive.
Construction: On-Road Fugitive Dust	Run only includes off-site locomotive operation.

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Off-Site Locomotive - Construction Mitigated
Construction Start Date	8/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75690813656374, -121.27417374770475
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

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
General Office Building	8.00	1000sqft	0.20	8,000	0.00	—	—	—

Other Non-Asphalt Surfaces	9.20	Acre	9.20	9.50	0.00	—	—	—
Parking Lot	4.00	1000sqft	0.10	0.10	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	—	39,845	39,845	3.26	1.06	0.00	40,242
Mit.	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	—	39,845	39,845	3.26	1.06	0.00	40,242
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	437	437	0.04	0.01	0.00	441
Mit.	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	437	437	0.04	0.01	0.00	441
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	72.3	72.3	0.01	< 0.005	0.00	73.0
Mit.	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	72.3	72.3	0.01	< 0.005	0.00	73.0
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	—	39,845	39,845	3.26	1.06	0.00	40,242
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	437	437	0.04	0.01	0.00	441
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	72.3	72.3	0.01	< 0.005	0.00	73.0

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	—	39,845	39,845	3.26	1.06	0.00	40,242

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	—	437	437	0.04	0.01	0.00	441
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	72.3	72.3	0.01	< 0.005	0.00	73.0

3. Construction Emissions Details

3.1. Trenching (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	6.84	81.5	149	0.41	1.22	—	1.22	1.22	—	1.22	—	39,845	39,845	3.26	1.06	—	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.08	0.89	1.63	< 0.005	0.01	—	0.01	0.01	—	0.01	—	437	437	0.04	0.01	—	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00	0.01	0.16	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.3	72.3	0.01	< 0.005	—	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Trenching (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	6.84	81.5	149	0.41	1.22	—	1.22	1.22	—	1.22	—	39,845	39,845	3.26	1.06	—	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.08	0.89	1.63	< 0.005	0.01	—	0.01	0.01	—	0.01	—	437	437	0.04	0.01	—	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.01	0.16	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.3	72.3	0.01	< 0.005	—	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Track & Signal Work	Trenching	5/1/2028	5/4/2028	5.00	4.00	—

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
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
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Track & Signal Work	—	—	—	—
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	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)
------------	--	--	--	--	-----------------------------

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)
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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
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	2.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	0.00	0.00	0.00

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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5.18.1.2. Mitigated

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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5.18.1.2. Mitigated

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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5.18.2.2. Mitigated

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	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A

Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	—
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	—
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	69.2

Linguistic	0.92
Poverty	42.6
Unemployment	64.5

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	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	—
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	—
Auto Access	87.47593995
Active commuting	52.35467727
Social	—
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	—
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712

Housing	—
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	—

Binge Drinking	7.5
Current Smoker	49.4
No Leisure Time for Physical Activity	72.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	—
Hardship	35.6
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
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	Construction schedule provided by project applicant. Run only includes off-site locomotive operation.
Construction: Off-Road Equipment	Construction equipment list provided by project applicant.
Land Use	Based on applicant-provided data.
Operations: Water and Waste Water	Based on applicant-provided data.
Operations: Solid Waste	Based on applicant-provided data.
Operations: Energy Use	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Run only includes off-site locomotive operation.
Construction: Electricity	Run only includes off-site locomotive operation.
Construction: Dust From Material Movement	Run only includes off-site locomotive operation.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 4 locomotive.
Construction: On-Road Fugitive Dust	Run only includes off-site locomotive operation.

Operational Locomotive Emissions Modeling

HP	BSFC (lbs/hp-hr)	BSFC (gal/hp-hr)
300 < hp < 750	0.367	0.05

Source: Appendix C

Emission Standards		Grams/hp-hr				
HP	Tier	HC	NMHC + NOX	CO	NOX	PM
<600 to <750	Tier 1	1		8.5	6.9	0.4
	Tier 2		4.8	2.6		0.15
	Tier 3		3	2.6		
	Tier 4 I	0.14			0.3	0.01
	Tier 4	0.14			0.3	0.01

Source: Table 1 Nonroad CI Engine Emission Standardsa

Calculated Emission Standards		Grams/hp-hr				
HP	Tier	ROG	NOX	CO	PM10	PM2.5
<600 to <750	Tier 1	1.1	6.9	8.5	0.40	0.39
	Tier 2	0.3	4.6	2.6	0.15	0.15
	Tier 3	0.2	2.9	2.6	0.15	0.15
	Tier 4 I	0.1	0.3	2.6	0.01	0.01
	Tier 4	0.1	0.3	2.6	0.01	0.01

Converted Emission Standards		Grams/gallon				
HP	Tier	ROG	NOX	CO	PM10	PM2.5
<600 to <750	Tier 1	0.05	0.35	0.44	0.02	0.02
	Tier 2	0.01	0.23	0.13	0.01	0.01
	Tier 3	0.01	0.15	0.13	0.01	0.01
	Tier 4 I	0.01	0.02	0.13	0.00	0.00
	Tier 4	0.01	0.02	0.13	0.00	0.00

CO2 = (BSFC * 453.6 - HC) * 0.87 * (44/12)

Tier	g/hp-hr	grams/gallon
Tier 1	163	8
Tier 2	166	9
Tier 3	166	9
Tier 4 I	166	9
Tier 4	166	9

SO2 = (BSFC * 453.6 * (1 - soxcnv) - HC) * 0.01 * soxdsl * 2

Tier	g/hp-hr	grams/gallon
Tier 1	0.81	0.04
Tier 2	0.81	0.04
Tier 3	0.81	0.04
Tier 4 I	0.58	0.03
Tier 4	0.58	0.03

soxcnv 0.02247 All other Tiers
0.3 Tier 4 only
soxdsl 0.25

NOX_NMHC + NOX % 95% http://www.baaqmd.gov/~media/Files/Engineering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=en
NOX_NMHC + NMHC % 5% http://www.baaqmd.gov/~media/Files/Engineering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=en
NMHC/THC 0.984 <http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf>
ROG_HC (or THC) 1.053 <http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf>
PM2.5% 0.97
7.15 pounds diesel/gallon

Summary

Locomotive	Engine Tier	HEP (gal/hr)	Traction (gal/hr)	Notes
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-I	21	63	HEP is separate engine (500 KW)
Dash 8 Series (P32)	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine

Notes

1. Traction fuel consumption for F59, P32, and P42 based on calculations and sources shown below
2. HEP fuel consumption based on SMAQMD calculations provided by J. Allison
3. HEP and Traction fuel consumption for ACR-44 scaled from P42 based on horsepower ratio

P42 Horsepower 4000 Source: 12/9/2014 call
ACR-44 Horsepower 4200 Source: 12/9/2014 call

Calculations - Traction Engine

Throttle Position	P32 (lbs/hour)*	P42 (lbs/hour)**	F59 (gals/hr)***	P32 (gals/hr)	P42 (gals/hr)	% Time in Notch****	F59 Weighted (gal/hr)	P32 Weighted (gal/hr)	P42 Weighted (gal/hr)
8	1060.0	1496.7	156.0	149.3	210.8	25%			
7	833.0	1223.7	128.0	117.3	172.4	2%			
6	572.0	977.1	88.0	80.6	137.6	5%			
5	480.0	756.8	74.6	67.6	106.6	6%			
4	368.0	514.2	57.1	51.8	72.4	8%			
3	254.0	367.3	38.2	35.8	51.7	9%			
2	142.0	171.1	19.6	20.0	24.1	8%			
1	91.0	90.5	11.9	12.8	12.7	11%			
Idle	32.0	25.9	2.6	4.5	3.6	15%			
DB	79.0	59.2	4.7	11.1	8.3	10%			
							63	61	85

Sources

- * Fritz 1994 (Table 4, Standard Injection Timing)
** NPI Engineering 2005 (Slide 2)
*** Electro-Motive Diesel 2008
**** EPA 1998 (Table 4-5) Adjusted to reduce time at idle to 15%

Diesel Fuel Conversion 7.1 lbs/gal

Original	100		
15.6%	15.6	25.2%	
1.4%	1.4	2.3%	
2.9%	2.9	4.7%	
4.0%	4	6.5%	
4.7%	4.7	7.6%	
5.7%	5.7	9.2%	
5.1%	5.1	8.2%	
7.0%	7	11.3%	
47.4%	9.3	15.0%	
6.2%	6.2	10.0%	
	61.9	100.0%	

Locomotive Details

Locomotive	Tier	Fuel (gal/hr)	Traction				Traction - Existing						Traction - Opening			Traction - Design		
			Existing		Opening		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	
			#	%	#	%	#	%										
F59 Series C15	2	63	12	52%	4	17%	0	0%	0	0	102	0	0	34	0	0	0	
F59 Series 3412C	2	63	3	13%	1	4%	0	0%	0	0	26	0	0	9	0	0	0	
Dash 8 Series	0+	61	2	9%	1	4%	0	0%	0	0	17	0	0	9	0	0	0	
P42 Series	0	85	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0	
ACR-44	4	90	6	26%	17	74%	24	100%	0	0	51	0	0	145	1	0	196	
Total	-	-	23	100%	23	100%	24	100%	0.6	0.4	196	0.6	0.4	196	0.6	0.4	196	

Locomotive	Tier	HEP						HEP - Existing					HEP - Opening			HEP - Design		
		Fuel (gal/hr)	Existing		Opening		Design			Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
			#	%	#	%	#	%										
F59 Series C15	3	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0	
F59 Series C15	4-I	21	4	17%	1	4%	0	0%	2	1	529	0	0	132	0	0	0	
F59 Series C15	4	21	5	22%	2	9%	0	0%	2	1	661	1	1	264	0	0	0	
F59 Series 3412C	0	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0	
F59 Series 3412C	4-I	21	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0	
Dash 8 Series	0+	28	2	9%	1	4%	0	0%	1	1	264	0	0	132	0	0	0	
P42 Series	0	28	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0	
ACR-44	4	29	6	26%	17	74%	24	100%	2	2	793	7	4	2247	9	6	3040	
Total	-	-	23	100%	23	100%	24	100%	9.4	6.0	3,040	9.4	6.0	3,040	9.4	6.0	3,040	

NET Pounds per day - WeekDAY (max)

Locomotive	Traction - Existing									Traction - Opening									Traction - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.2	4.5	1.2	0.2	0.2	0.0	443	0.0	0.0	0.1	1.5	0.4	0.1	0.1	0.0	147.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
F59 Series 3412C	0.1	1.1	0.3	0.0	0.0	0.0	111	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	36.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Dash 8 Series	0.0	1.0	0.2	0.0	0.0	0.0	71	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
ACR-44	0.0	0.6	0.8	0.0	0.0	0.0	316	0.0	0.0	0.1	1.8	2.3	0.0	0.0	0.0	895.3	0.1	0.0	0.1	2.5	3.2	0.0	0.0	0.0	1,211	0.1	0.0
Total	0.4	7.3	2.5	0.2	0.2	0.0	940	0.1	0.0	0.2	4.2	2.9	0.1	0.1	0.0	1,115	0.1	0.0	0.1	2.5	3.2	0.0	0.0	0.0	1,211	0.1	0.0

Note

Loco EF
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Loco EF

Locomotive	HEP - Existing									HEP - Opening									HEP - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.3	7.6	1.3	0.2	0.2	0.0	515.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.1	3.3	4.2	0.0	0.0	0.0	1622.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	3.8	0.0	0.2	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2
Total	0.5	10.9	5.6	0.3	0.3	0.0	2139.9	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	4.9	0.0	0.2	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2

Offroad EF
Offroad EF
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Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF
Loco EF

Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Existing - Entire project	1	18	8	1	0	0	3,080	0	0
Design - Entire project	1	15	19	0	0	0	7,431	1	0

NET Tons and metric tons per year

Locomotive	Traction - Existing									Traction - Opening									Traction - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.7	0.2	0.0	0.0	0.0	66	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0
F59 Series 3412C	0.0	0.2	0.0	0.0	0.0	0.0	16	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0
Dash 8 Series	0.0	0.2	0.0	0.0	0.0	0.0	11	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0
ACR-44	0.0	0.1	0.1	0.0	0.0	0.0	47	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	146.2	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	179	0.0	0.0
Total	0.1	1.2	0.4	0.0	0.0	0.0	139	0.0	0.0	0.0	0.7	0.5	0.0	0.0	0.0	182	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	179	0.0	0.0

Locomotive	HEP - Existing									HEP - Opening									HEP - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Total	0.0014	0.0083	0.0159	0.0005	0.0004	0.0027	0.6772	0.0000	0.0000	0.0010	0.0042	0.0145	0.0002	0.0002	0.0029	0.7847	0.0000	0.0000	0.0007	0.0015	0.0131	0.0001	0.0000	0.0029	0.8396	0.0000	0.0000

Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Existing	0	1	0	0	0	0	140	0	0
Opening	0	1	0	0	0	0	183	0	0
Design	0	0	1	0	0	0	180	0	0

pounds per gram 0.00220462
tons per gram 1.10E-06
mt per gram 1.00E-06

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF

Locomotive Details

Locomotive	Traction									Traction - Existing			Traction - Opening			Traction - Design		
	Tier		Fuel (gal/hr)	Existing		Opening		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%	#	%									
F59 Series C15	2		63	12	52%	4	17%	0	0%	0	0	102	0	0	34	0	0	0
F59 Series 3412C	2		63	3	13%	1	4%	0	0%	0	0	26	0	0	9	0	0	0
Dash 8 Series	0+		61	2	9%	1	4%	0	0%	0	0	17	0	0	9	0	0	0
P42 Series	0		85	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
ACR-44	4		90	6	26%	17	74%	24	100%	0	0	51	0	0	145	1	0	196
Total	-		-	23	100%	23	100%	24	100%	0.6	0.4	196	0.6	0.4	196	0.6	0.4	196

Locomotive	HEP									HEP - Existing			HEP - Opening			HEP - Design		
	Tier		Fuel (gal/hr)	Existing		Opening		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%	#	%									
F59 Series C15	3		21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0
F59 Series C15	4-I		21	4	17%	1	4%	0	0%	2	1	529	0	0	132	0	0	0
F59 Series C15	4		21	5	22%	2	9%	0	0%	2	1	661	1	1	264	0	0	0
F59 Series 3412C	0		21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0
F59 Series 3412C	4-I		21	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+		28	2	9%	1	4%	0	0%	1	1	264	0	0	132	0	0	0
P42 Series	0		28	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
ACR-44	4		29	6	26%	17	74%	24	100%	2	2	793	7	4	2247	9	6	3040
Total	-		-	23	100%	23	100%	24	100%	9.4	6.0	3,040	9.4	6.0	3,040	9.4	6.0	3,040

NET gallons and BTU - WeekDAY (max) and Annual

Locomotive	Gallons-Diesel						Combustion BTU (million)						Total BTU (million)					
	Traction - Existing		Traction - Opening		Traction - Design		Traction - Existing		Traction - Opening		Traction - Design		Traction - Existing		Traction - Opening		Traction - Design	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	20	6,425	7	2,142	0	0	3	832	1	277	1	277	3	1,007	1	336	0	0
F59 Series 3412C	5	1,606	2	535	0	0	1	208	0	69	0	69	1	252	0	84	0	0
Dash 8 Series	3	1,032	2	516	0	0	0	134	0	67	0	67	0	162	0	81	0	0
P42 Series	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACR-44	14	4,587	40	12,995	54	17,582	2	594	5	1,683	5	1,683	2	719	6	2,037	8	2,756
Total	42	13,650	50	16,188	54	17,582	5	1,767	6	2,096	6	2,096	7	2,140	8	2,538	8	2,756

Locomotive	Gallons-Diesel						Combustion BTU (million)						Total BTU (million)					
	HEP - Existing		HEP - Opening		HEP - Design		HEP - Existing		HEP - Opening		HEP - Design		HEP - Existing		HEP - Opening		HEP - Design	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	26	8,327	9	2,776	0	0	3	1,078	1	359	0	0	4	1,305	1	435	0	0
F59 Series C15	34	11,103	9	2,776	0	0	4	1,438	1	359	0	0	5	1,741	1	435	0	0
F59 Series C15	43	13,878	17	5,551	0	0	6	1,797	2	719	0	0	7	2,176	3	870	0	0
F59 Series 3412C	26	8,327	9	2,776	0	0	3	1,078	1	359	0	0	4	1,305	1	435	0	0
F59 Series 3412C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	23	7,402	11	3,701	0	0	3	958	1	479	0	0	4	1,160	2	580	0	0
P42 Series	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACR-44	72	23,315	204	66,061	276	89,376	9	3,019	26	8,554	36	11,573	11	3,655	32	10,356	43	14,011
Total	224	72,352	259	83,640	276	89,376	29	9,369	33	10,830	36	11,573	35	11,342	41	13,112	43	14,011

Condition	Gallons-Diesel		Combustion BTU		Total BTU	
	Daily	Annual	Daily	Annual	Daily	Annual
Existing	266	86,002	34	11,136	42	13,482
Opening	308	99,828	40	12,927	48	15,650
Design	330	106,958	42	13,669	52	16,767

Fuel	Combustion	Total	Unit
Gasoline	113,927	138,766	BTU/Gal
Diesel	129,488	156,765	BTU/Gal
Million	1,000,000		

Future Locomotives in Use for Capitol Corridor Service for Air Quality Analysis purposes

Loco #	Name	Traction Power Engine	2018 (base)		2029 (opening)		2035 (design)		HEP Power Engine	2018 (base)		2029 (opening)		2035 (design)	
			Tier #	#	Tier #	#	Tier #	#		Tier #	#	Tier #	#	Tier #	#
2001	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	3	1	3	0	4-I	0
2002	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	3	1	3	0	4-I	0
2003	F59 Series 3412C	EMD710 ECO	2	1	2	0	2	0	CAT 3412	0	1	0	0	4-I	0
2004	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2005	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2006	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2007	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT - C-15I	4-I	1	4-I	0	4-I	0
2008	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2009	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT - C-15I	4-I	1	4-I	0	4-I	0
2010	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT - C-15I	4-I	1	4-I	0	4-I	0
2011	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT C-15	4	1	4	2	4	0
2012	F59 Series 3412C	EMD710 ECO	2	1	2	0	2	0	CAT 3412	0	1	0	0	4-I	0
2013	F59 Series 3412C	EMD710 ECO	2	1	2	1	2	0	CAT 3412	0	1	0	1	4-I	0
2014	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT - C-15I	4-I	1	4-I	1	4-I	0
2015	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT C-15	3	1	3	1	4-I	0
2051	Dash 8 Series	Gen. Elect. 7FLDN	0+	1	0+	0	0+	0	Part of main engine	0+	1	0+	0	0+	0
2052	Dash 8 Series	Gen. Elect. 7FLDN	0+	1	0+	1	0+	0	Part of main engine	0+	1	0+	1	0+	0
Qty. 4-7 #1-207	P42 Series	Gen. Elect. P-42	0	0	0	0	0	0	main engine	0	0	0	0	0	0
New Loco CDTxxxx	ACR-44	Cummings QSK95		6		17	4	24	AC traction part of eng. Sys	4	6	4	17	4	24
New Loco CDTxxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTxxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTxxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTxxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0

HEP upgrade to Tier 4-I is expected to complete in March 2015, replacing the existing Tier III and the 3412 series engines.
Two GE P32-8 locomotives are being currently reviewed for their potential future possible rebuild to latest EPA emissions technology available on these types of engines
2008 fleet mix is equal to 2015 mix; thereafter, new locomotives will be phased

Locomotive	Tier	Traction					
		2018 (base)		2029 (opening)		2035 (design)	
		#	%	#	%	#	%
F59 Series C15	2	12	52%	4	17%	0	0%
F59 Series 3412C	2	3	13%	1	4%	0	0%
Dash 8 Series	0+	2	9%	1	4%	0	0%
P42 Series	0	0	0%	0	0%	0	0%
ACR-44	4	6	26%	17	74%	24	100%
Total	-	23	100%	23	100%	24	100%

0

0

Locomotive	Tier	HEP					
		2018 (base)		2029 (opening)		2035 (design)	
		#	%	#	%	#	%
F59 Series C15	3	3	13%	1	4%	0	0%
F59 Series C15	4-I	4	17%	1	4%	0	0%
F59 Series C15	4	5	22%	2	9%	0	0%
F59 Series 3412C	0	3	13%	1	4%	0	0%
F59 Series 3412C	4-I	0	0%	0	0%	0	0%
Dash 8 Series	0+	2	9%	1	4%	0	0%
P42 Series	0	0	0%	0	0%	0	0%
ACR-44	4	6	26%	17	74%	24	100%
Total		23	100%	23	100%	24	100%

Capitol Corridor Service Increment - Sacramento to Roseville 3rd Track Project

	Daily minutes shown for each additional train between Sacramento and Roseville include travel time in rolling operation and idle time								Assumed level of Weekday service and Weekend/Holiday Schedule service per year			
	Typical Weekday Day		Typical Weekend Day		Weekday Conversion to Daily Hours of service		Weekend/Holiday Conversion to Daily Hours of service		Weekday Ops/year	Weekend-Holiday Ops/Year	Running Time Hours/year	Idle Time Hours/Year Rose
Added Trips	Running Time (min)	Idle (HEP) Time Rose (min)	Running Time (min)	Idle (HEP) Time Rose (min)	Running Time (hr)	Idle (HEP) Time Rose (hr)	Running Time (hr)	Idle (HEP) Time Rose (hr)	250	115	196	3040
Trip #1	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #2	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #3	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #4	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #5	2	46	2	30	0.033	0.767	0.03	0.50				
Trip #6	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #7	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #8	2	34	2	30	0.033	0.567	0.03	0.50				
Trip #9	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #10	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #11	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #12	2	30	2	30	0.033	0.500	0.03	0.50				
Trip #13	2	30			0.033	0.500						
Trip #14	2	30			0.033	0.500						
Trip #15	2	30			0.033	0.500						
Trip #16	2	34			0.033	0.567						
Trip #17	2	30			0.033	0.500						
Trip #18	2	30			0.033	0.500						
TOTALS	36	564	24	360	0.6	9.4	0.4	6				

Sources and Assumptions:

CCJPA is the source for running times and idle (HEP) times. These values are based on travel schedules and estimated layover hours required for each trip which vary based on the schedule.

Layover facility would add 2 minutes of running time to each train evaluated in the previous EIR for the additional distance from the station to the layover, which is about 1 mile (2 minute travel time, assuming it's made at 30 MPH).

The HEP is subject to the ARB offroad standards. ONLY the P59 has a separate HEP engine. All other locomotives utilize the traction engine for hoteling

EPA 2009, Table 1	https://nepis.epa.gov/Exec/QueryNET.exe?P100500B.txt?ZyActionD=ZyDocument&Client=EPA&Index=2006%20Thru%202014%20to%20Present&Text=Climate+Registry&_id=Z1000001&_z=z	EPA 2009	http://www.epa.gov/otaq/models/nonrmdmdl/nonrmdmdl2010/420r10018.pdf
Climate Registry	http://www.theclimateregistry.org/downloads/2014/02/2014-Climate-Registry-Default-Emissions-Factors.pdf	See: C-I Emission Rates.xls	
VOC_HC	1.053		
PM2.5_PM10	0.97		
N2O_CO2	0.000026 Climate Registry 2014	N2O_CO2 Die	2.5465E-05 Climate Registry 2014
CH4_CO2	0.000057 Climate Registry 2014	CH4_CO2 Die	5.6807E-05 Climate Registry 2014
bhp-hr/gal	20.8 EPA 2011		

1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
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Locomotive	Engine Tier	Idle-HEP Mode	Traction	Notes
		Fuel (gal/hr)	Fuel (gal/hr)	
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-I	21	63	HEP is separate engine (500 KW)
Dash 8 Series	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine

See: *Locomotive Weighted Fuel Consumption Rate.xls*

Table 1. Net Project Impact under Existing Conditions (2013) in PCAPCD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2
Train Operation (movement and idle) ^a	2.7	51.4	11.1	1.8	1.7	0.1
Public vehicles ^b	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses - Thruway Service ^c	0.0	-0.2	-0.4	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.1	0.2	0.0	0.0	0.0
O&M at Roseville Station	0.1	0.1	0.3	0.0	0.0	0.0
Total Net Change	-3.8	29.9	-69.6	-4.6	-0.4	-0.1

a. Based on maximum weekday operating schedule

b. Changes in public vehicle usage would occur in both SMAQMD and PCAPCD. Total emissions reductions scaled 50% to PCAPCD

c. Changes in Thruway service would occur in SMAQMD and PCAPCD. Total emissions reductions scaled 50% to PCAPCD

PCAPCD/SMAQMD Scale
50%

Table 2. Net Project Impact under Existing Conditions (2013) in SMAQMD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2
Train Operation (movement and idle) ^a	6.3	115.4	28.0	4.1	4.0	0.1
Public vehicles ^b	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses - Thruway Service ^c	0.0	-0.2	-0.4	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Change	-0.3	93.7	-53.2	-2.3	1.9	-0.1

a. Based on maximum weekday operating schedule

b. Changes in public vehicle usage would occur in both SMAQMD and PCAPCD. Total emissions reductions scaled 50% to PCAPCD

c. Changes in Thruway service would occur in SMAQMD and PCAPCD. Total emissions reductions scaled 50% to PCAPCD

Table 3. Net Project Impact under Existing Conditions (2013) in the Entire Project Area (tons/metric tons per year)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2	CO2 ^a	CH4	N2O	Other	CO2e
Train Operation (movement and idle)	1.5	27.3	6.4	1.0	0.9	0.0	2,223.4	0.2	0.1	-	2,243
Public vehicles	-2.3	-7.5	-28.0	-2.2	-0.7	-0.1	-4,508	-	-	-54	-4,562
Public Buses - Thruway Service	0.0	0.0	-0.1	0.0	0.0	0.0	-20	0.0	0.0	-	-20
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0	8	0.0	0.0	-	8
O&M at Roseville Station	0.0	0.0	0.1	0.0	0.0	0.0	29	0.1	0.0	0.1	32
Standby Electricity Usage	-	-	-	-	-	-	-80	0.0	0.0	0.0	-81
Total Net Change	-0.8	19.8	-21.6	-1.2	0.22	-0.04	-2,349	0.3	0.1	-54	-2,380

a. Assumes Pavley/LCFS/RPS, as applicable

Table 4. Net Project Impact under Design Conditions (2035) in PCAPCD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2
Train Operation (movement and idle) ^a	0.9	21.9	28.1	0.3	0.3	0.1
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses - Thruway Service	0.0	0.0	0.0	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.1	0.0	0.1	0.0	0.0	0.0
O&M at Roseville Layover Facility	0.1	0.0	0.3	0.1	0.0	0.0
Total Net Change	-1.6	16.1	-0.6	-5.8	-1.6	-0.1

a. Based on maximum weekday operating schedule

Table 5. Net Project Impact under Design Conditions (2035) in SMAQMD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2
Train Operation (movement and idle) ^a	0.9	21.4	27.4	0.3	0.3	0.1
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses - Thruway Service	0.0	0.0	0.0	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Change	-1.8	15.5	-1.7	-5.9	-1.6	-0.1

a. Based on maximum weekday operating schedule

Table 6. Net Project Impact under Design Conditions (2035) in the Entire Project Area (tons per year)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2	CO2 ^a	CH4	N2O	Other	CO2e
Train Operation (movement and idle)	0.3	7.1	9.1	0.1	0.1	0.0	3,147.9	0.2	0.1	-	3,176
Public vehicles	-1.0	-2.0	-10.1	-2.2	-0.7	-0.1	-3,388	-	-	-41	-3,428
Public Buses - Thruway	0.0	0.0	0.0	0.0	0.0	0.0	-18.4	0.0	0.0	-	-18
Public Buses - Roseville	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	-	7
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.1	0.0	0.1	21
Standby Electricity Usage	-	-	-	-	-	-	-36	0.0	0.0	0.0	-37
O&M at Roseville Layover Facility	0.1	0.0	0.3	0.1	0.0	0.0	95.3	0.3	0.0	-	104
Total Net Change	-0.5	5.1	-0.7	-2.0	-0.5	0.0	-174.1	0.6	0.1	-40.6	-175.1

a. Assumes Pavley/LCFS/RPS, as applicable

Table 1. Net Project Energy Impact (million BTUs per year) (combustion)

Source	Existing	Design		
<i>Direct Energy</i>				
Train Operation (movement and idle)	26,810	37,655		
Public vehicles	-73,787	-54,603		
Public Buses	-693	-693	-47,670	-17,641
<i>Indirect Energy</i>				
O&M at Roseville Station	430	379		
Standby Electricity Usage	-943	-943	-513	-564
Total Net Change	-48,183	-18,204		

Construction Energy 45,387 Million BTU

Locomotive Details

Locomotive	Traction							Traction - Existing			Traction - Design		
	Tier		Fuel (gal/hr)	Existing		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%						
F59 Series C15	2		63	12	67%	0	0%	7	5	2270	0	0	0
F59 Series 3412C	2		63	3	17%	0	0%	2	1	568	0	0	0
Dash 8 Series	0+		61	2	11%	0	0%	1	1	378	0	0	0
P42 Series	0		85	1	6%	0	0%	1	0	189	0	0	0
ACR-44	4		90	0	0%	24	100%	0	0	0	10	7	3405
Total	-		-	18	100%	24	100%	10.4	7.0	3,405	10.4	7.0	3,405

Locomotive	Tier		Fuel (gal/hr)	HEP				HEP - Existing Sacramento			HEP - Existing Roseville			HEP - Design Sacramento			HEP - Design Roseville		
				Existing		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%												
F59 Series C15	3		21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series C15	4-I		21	4	22%	0	0%	-2	-1	-653	2	1	676	0	0	0	0	0	0
F59 Series C15	4		21	5	28%	0	0%	-3	-2	-817	3	2	844	0	0	0	0	0	0
F59 Series 3412C	0		21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series 3412C	4-I		21	0	0%	0	0%	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+		28	2	11%	0	0%	-1	-1	-327	1	1	338	0	0	0	0	0	0
P42 Series	0		28	1	6%	0	0%	-1	0	-163	1	0	169	0	0	0	0	0	0
ACR-44	4		29	0	0%	24	100%	0	0	0	0	0	0	-9	-6	-2940	9	6	3040
Total	-		-	18	100%	24	100%	-9.0	-6.0	-2,940	9.4	6.0	3,040	-9.0	-6.0	-2,940	9.4	6.0	3,040

NET Pounds per day - WeekDAY (max)

Locomotive	Traction - Existing									Traction - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	5.5	98.9	25.6	3.6	3.5	0.1	9,803	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
F59 Series 3412C	1.4	24.7	6.4	0.9	0.9	0.0	2,451	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Dash 8 Series	1.0	23.1	4.1	0.6	0.6	0.0	1,574	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
P42 Series	1.1	19.5	2.9	0.7	0.7	0.0	1,111	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	1.8	42.8	54.8	0.6	0.6	0.2	20,995	1.6	0.5
Total	9.0	166.2	39.0	5.9	5.7	0.1	14,939	1.2	0.4	1.8	42.8	54.8	0.6	0.6	0.2	20,995	1.6	0.5

Note

Loco EF
Loco EF
Loco EF
Loco EF
Loco EF
Loco EF

Locomotive	HEP - Existing (SACRAMENTO)									HEP - Design (SACRAMENTO)								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	-0.4	-9.2	-1.6	-0.3	-0.2	0.0	-630.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	-0.3	-5.5	-0.8	-0.2	-0.2	0.0	-315.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-12.1	-15.5	-0.2	-0.2	-0.1	-5954.8	-0.5	-0.2
Total	-0.7	-14.8	-2.5	-0.5	-0.5	0.0	-948.1	-0.1	0.0	-0.5	-12.1	-15.5	-0.2	-0.2	-0.1	-5954.8	-0.5	-0.2

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF
Loco EF

Locomotive	HEP - Existing (ROSEVILLE)									HEP - Design (ROSEVILLE)								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.4	9.7	1.7	0.3	0.3	0.0	658.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.3	5.8	0.9	0.2	0.2	0.0	329.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2
Total	0.8	15.5	2.6	0.5	0.5	0.0	990.3	0.1	0.0	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF
Loco EF

Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Existing - SACRAMENTO	6	115	28	4	4	0	10,757	1	0
Design - SACRAMENTO	1	21	27	0	0	0	10,495	1	0
Existing - ROSEVILLE	3	51	11	2	2	0	4,225	0	0
Design - ROSEVILLE	1	22	28	0	0	0	10,765	1	0
Existing - Entire project	9	167	39	6	6	0	14,982	1	0
Design - Entire project	2	43	55	1	1	0	21,260	2	1

Track Miles

SMAQMD 78%
PCAPCD 22%

NET Tons and metric tons per year

Locomotive	Traction - Existing									Traction - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.9	16.2	4.2	0.6	0.6	0.0	1,456	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
F59 Series 3412C	0.2	4.0	1.0	0.1	0.1	0.0	364	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Dash 8 Series	0.2	3.8	0.7	0.1	0.1	0.0	234	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
P42 Series	0.2	3.2	0.5	0.1	0.1	0.0	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	7.0	9.0	0.1	0.1	0.0	3,118	0.2	0.1
Total	1.5	27.2	6.4	1.0	0.9	0.0	2,219	0.2	0.1	0.3	7.0	9.0	0.1	0.1	0.0	3,118	0.2	0.1

Locomotive	HEP - Existing									HEP - Design								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.0	0.1	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	30.0	0.0	0.0
Total	0.0	0.1	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	30.0	0.0	0.0

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF
Loco EF

Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Existing	1	27	6	1	1	0	2,223	0	0
Design	0	7	9	0	0	0	3,148	0	0

pounds per gram 0.002205
tons per gram 1.10E-06
mt per gram 1.00E-06

Locomotive Details

Locomotive	Tier		Fuel (gal/hr)	Traction				Traction - Existing			Traction - Design		
				Existing		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%						
F59 Series C15	2		63	12	67%	0	0%	7	5	2270	0	0	0
F59 Series 3412C	2		63	3	17%	0	0%	2	1	568	0	0	0
Dash 8 Series	0+		61	2	11%	0	0%	1	1	378	0	0	0
P42 Series	0		85	1	6%	0	0%	1	0	189	0	0	0
ACR-44	4		90	0	0%	24	100%	0	0	0	10	7	3405
Total	-		-	18	100%	24	100%	10.4	7.0	3,405	10.4	7.0	3,405

Locomotive	Tier		Fuel (gal/hr)	HEP				HEP - Existing Sacramento			HEP - Existing Roseville			HEP - Design Sacramento			HEP - Design Roseville		
				Existing		Design		Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)	Weekday (hr/day)	Weekend (hr/day)	Annual (hr/yr)
				#	%	#	%												
F59 Series C15	3		21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series C15	4-I		21	4	22%	0	0%	-2	-1	-653	2	1	676	0	0	0	0	0	0
F59 Series C15	4		21	5	28%	0	0%	-3	-2	-817	3	2	844	0	0	0	0	0	0
F59 Series 3412C	0		21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series 3412C	4-I		21	0	0%	0	0%	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+		28	2	11%	0	0%	-1	-1	-327	1	1	338	0	0	0	0	0	0
P42 Series	0		28	1	6%	0	0%	-1	0	-163	1	0	169	0	0	0	0	0	0
ACR-44	4		29	0	0%	24	100%	0	0	0	0	0	0	-9	-6	-2940	9	6	3040
Total	-		-	18	100%	24	100%	-9.0	-6.0	-2,940	9.4	6.0	3,040	-9.0	-6.0	-2,940	9.4	6.0	3,040

NET gallons and BTU - WeekDAY (max) and Annual

Locomotive	Gallons-Diesel				Combustion BTU (million)				Total BTU (million)			
	Traction - Existing		Traction - Design		Traction - Existing		Traction - Design		Traction - Existing		Traction - Design	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	436	142,621	0	0	56	18,468	0	0	68	22,358	0	0
F59 Series 3412C	109	35,655	0	0	14	4,617	0	0	17	5,589	0	0
Dash 8 Series	70	22,905	0	0	9	2,966	0	0	11	3,591	0	0
P42 Series	49	16,161	0	0	6	2,093	0	0	8	2,533	0	0
ACR-44	0	0	933	305,439	0	0	121	39,551	0	0	146	47,882
Total	664	217,341	933	305,439	86	28,143	121	39,551	104	34,072	146	47,882

Locomotive	Gallons-Diesel				Combustion BTU (million)				Total BTU (million)			
	HEP - Existing		HEP - Design		HEP - Existing		HEP - Design		HEP - Existing		HEP - Design	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	1	350	0	0	0	45	0	0	0	55	0	0
F59 Series C15	2	467	0	0	0	60	0	0	0	73	0	0
F59 Series C15	2	583	0	0	0	76	0	0	0	91	0	0
F59 Series 3412C	1	350	0	0	0	45	0	0	0	55	0	0
F59 Series 3412C	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	1	311	0	0	0	40	0	0	0	49	0	0
P42 Series	1	156	0	0	0	20	0	0	0	24	0	0
ACR-44	0	0	12	2,940	0	0	2	381	0	0	2	461
Total	9	2,217	12	2,940	1	287	2	381	1	347	2	461

Condition	Gallons-Diesel		Combustion BTU		Total BTU	
	Daily	Annual	Daily	Annual	Daily	Annual
Existing	673	219,558	87	28,430	105	34,419
Design	945	308,379	122	39,931	148	48,343

Fuel	Combustion	Total	Unit
Gasoline	113,927	138,766	BTU/Gal
Diesel	129,488	156,765	BTU/Gal
Million	1,000,000		

Future Locomotives in Use for Capitol Corridor Service for Air Quality Analysis purposes

Loco #	Name	Traction Power Engine	2015 (base)		2035 (design)		HEP Power Engine	2015 (base)		2035 (design)	
			Tier #	#	Tier #	#		Tier #	#	Tier #	#
2001	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2002	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2003	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2004	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2005	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2006	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2007	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2008	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2009	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2010	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2011	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2012	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2013	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2014	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2015	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2051	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	0	Part of main engine	0+	1	0+	0
2052	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	0	Part of main engine	0+	1	0+	0
Qty. 4-7 #1-207	P42 Series	Gen. Elect. P-42	0	1	0	0	main engine	0	1	0	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	24	AC traction part of eng. Sys			4	24
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0

HEP upgrade to Tier 4-I is expected to complete in March 2015, replacing the existing Tier III and the 3412 series engines
Two GE P32-8 locomotives are being currently reviewed for their potential future possible rebuild to latest EPA emissions technology available on these types of engines

2008 fleet mix is equal to 2015 mix; thereafter, new locomotives will be phased

Locomotive	Traction				
	Tier	2015 (base)		2035 (design)	
		#	%	#	%
F59 Series C15	2	12	67%	0	0%
F59 Series 3412C	2	3	17%	0	0%
Dash 8 Series	0+	2	11%	0	0%
P42 Series	0	1	6%	0	0%
ACR-44	4	0	0%	24	100%
Total	-	18	100%	24	100%

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Locomotive	HEP				
	Tier	2015 (base)		2035 (design)	
		#	%	#	%
F59 Series C15	3	3	17%	0	0%
F59 Series C15	4-I	4	22%	0	0%
F59 Series C15	4	5	28%	0	0%
F59 Series 3412C	0	3	17%	0	0%
F59 Series 3412C	4-I	0	0%	0	0%
Dash 8 Series	0+	2	11%	0	0%
P42 Series	0	1	6%	0	0%
ACR-44	4	0	0%	24	100%
Total		18	100%	24	100%

Capitol Corridor Service Increment - Sacramento to Roseville 3rd Track Project

	Daily minutes shown for each additional train between Sacramento and Roseville inclue travel time in rolling operation and idle time												Assumed level of Weekday service and Weekend/Holiday Schedule service per year				
Added Trips	Typical Weekday Day			Typical Weekend Day			Weekday Conversion to Daily Hours of service			Weekend/Holiday Conversion to Daily Hours of service			Weekday Ops/year	Weekend-Holiday Ops/Year	Running Time Hours/year	Idle Time Hours/Year Sac	Idle Time Hours/Year Rose
	Running Time (min)	Idle (HEP) Time Sac (min)	Idle (HEP) Time Rose (min)	Running Time (min)	Idle (HEP) Time Sac (min)	Idle (HEP) Time Rose (min)	Running Time (hr)	Idle (HEP) Time Sac (hr)	Idle (HEP) Time Rose (hr)	Running Time (hr)	Idle (HEP) Time Sac (hr)	Idle (HEP) Time Rose (hr)	250	115	3405	-2940	3040
Trip #1	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #2	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #3	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #4	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #5	33	-30	46	33	-30	30	0.550	-0.500	0.767	0.55	-0.50	0.50					
Trip #6	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #7	33	-30	30	37	-30	30	0.550	-0.500	0.500	0.62	-0.50	0.50					
Trip #8	33	-30	34	37	-30	30	0.550	-0.500	0.567	0.62	-0.50	0.50					
Trip #9	33	-30	30	37	-30	30	0.550	-0.500	0.500	0.62	-0.50	0.50					
Trip #10	34	-30	30	37	-30	30	0.567	-0.500	0.500	0.62	-0.50	0.50					
Trip #11	34	-30	30	37	-30	30	0.567	-0.500	0.500	0.62	-0.50	0.50					
Trip #12	37	-30	30	37	-30	30	0.617	-0.500	0.500	0.62	-0.50	0.50					
Trip #13	37	-30	30				0.617	-0.500	0.500								
Trip #14	37	-30	30				0.617	-0.500	0.500								
Trip #15	37	-30	30				0.617	-0.500	0.500								
Trip #16	37	-30	34				0.617	-0.500	0.567								
Trip #17	37	-30	30				0.617	-0.500	0.500								
Trip #18	37	-30	30				0.617	-0.500	0.500								
TOTALS	624	540	564	420	360	360	10.4	-9	9.4	7	-6	6					

Sources and Assumptions:
CCJPA is the source for running times and idle (HEP) times. These values are based on travel schedules and estimated layover hours required for each trip which vary based on the schedule.
Weekday service adds an additional 9 round trips or 18 daily trains; weekend/holiday schedules add an additional 6 round trips or 12 daily trains.

The traction, or main engine, is subject to EPA locomotive emission standards.
The HEP is subject to the ARB offroad standards. ONLY the P59 has a separate HEP engine. All other locomotives utilize the traction engine for hoteling.

Engine Tier	Power Engine (g/gal)									Engine Tier	500 kW HEP Engine (g/gal) [ONLY FOR SEPARATE HEP ENGINE ON F59]								
	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O		ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
0	10.51	178.88	26.62	6.66	6.46	0.09	10,208	0.80	0.26	0	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
0+	6.57	149.76	26.62	4.16	4.04	0.09	10,208	0.80	0.26	0+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1	10.29	139.36	26.62	6.66	6.46	0.09	10,208	0.80	0.26	1	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1+	6.35	139.36	26.62	4.16	4.04	0.09	10,208	0.80	0.26	1+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
2	5.69	102.96	26.62	3.74	3.63	0.09	10,208	0.80	0.26	2	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
2+	2.85	102.96	26.62	1.66	1.61	0.09	10,208	0.80	0.26	2+	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
3	2.85	102.96	26.62	1.66	1.61	0.09	10208	0.80	0.26	3	0.01	0.15	0.13	0.01	0.01	0.04	9	0.00	0.00
4-l	-	-	-	-	-	-	-	-	-	4-l	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00
4	0.88	20.80	26.62	0.31	0.30	0.09	10,208	0.80	0.26	4	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00

EPA 2009, Table 1 <http://www.epa.gov/nonroad/locomotv/420f09025.pdf>
Climate Registry <http://www.theclimaterestry.org/downloads/2014/02/2014-Climate-Registry-Default-Emissions-Factors.pdf>

EPA 2009 <http://www.epa.gov/otaq/models/nonrdmdl/nonrdmdl2010/420r10018.pdf>
See: C-I Emission Rates.xls

VOC_HC 1.053
PM2.5_PM10 0.97
N2O_CO2 0.000026 Climate Registry 2014
CH4_CO2 0.000057 Climate Registry 2014
bhp-hr/gal 20.8 EPA 2011

N2O_CO2 Di 2.5465E-05 Climate Registry 2014
CH4_CO2 Di 5.6807E-05 Climate Registry 2014

<u>SO2 (g/gal) =</u>	<u>0.09</u>	<u>CO2 (g/gal) =</u>	<u>10208</u>
based on:		based on:	
(fuel density) x (conversion factor) x (64 g SO2 / 32 g S) x (S content of fuel)		(fuel density) x (44 g CO2 / 12 g C) x (C content of fuel)	
fuel density	3200 g/gal	fuel density	3200 g/gal
conversion factor	0.978 (fraction of fuel sulfur converted to so2)	44 / 12	3.666666667
64 / 32	2	C content of fuel	8.70E-01 87% by mass
S content of fuel	1.50E-05 15 ppm		
	http://www.arb.ca.gov/regact/carblohc/ruid.pdf		

1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10

Locomotive	Engine Tier	Idle-HEP Mode	Traction	Notes
		Fuel (gal/hr)	Fuel (gal/hr)	
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-I	21	63	HEP is separate engine (500 KW)
Dash 8 Series	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine

See: Locomotive Weighted Fuel Consumption Rate.xls

Health Risk Assessment

```
** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/18/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
CONSTRUCT\AERMOD LAYOVER CONSTRUCT.ADI
**
*****
**
**
*****
** AERMOD CONTROL PATHWAY
*****
**
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACRAMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER CONSTRUCT.ERR"
CO FINISHED
**
*****
** AERMOD SOURCE PATHWAY
*****
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE21
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000116
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 9
```

** 649987.745, 4291180.599, 52.57, 3.40, 12.39
 ** 650122.346, 4291253.260, 53.13, 3.40, 12.39
 ** 650180.713, 4291277.083, 53.34, 3.40, 12.39
 ** 650202.154, 4291285.421, 53.39, 3.40, 12.39
 ** 650285.535, 4291310.436, 53.65, 3.40, 12.39
 ** 650386.784, 4291334.259, 52.10, 3.40, 12.39
 ** 650471.356, 4291343.788, 49.96, 3.40, 12.39
 ** 650496.370, 4291355.700, 49.90, 3.40, 12.39
 ** 650745.323, 4291364.038, 52.75, 3.40, 12.39

** -----
 LOCATION L0000001 VOLUME 649993.606 4291183.763 52.59
 LOCATION L0000002 VOLUME 650017.048 4291196.418 52.69
 LOCATION L0000003 VOLUME 650040.490 4291209.072 52.79
 LOCATION L0000004 VOLUME 650063.933 4291221.727 52.89
 LOCATION L0000005 VOLUME 650087.375 4291234.382 52.98
 LOCATION L0000006 VOLUME 650110.818 4291247.037 53.08
 LOCATION L0000007 VOLUME 650134.881 4291258.376 53.18
 LOCATION L0000008 VOLUME 650159.546 4291268.443 53.26
 LOCATION L0000009 VOLUME 650184.234 4291278.452 53.35
 LOCATION L0000010 VOLUME 650209.254 4291287.551 53.41
 LOCATION L0000011 VOLUME 650234.770 4291295.206 53.49
 LOCATION L0000012 VOLUME 650260.287 4291302.861 53.57
 LOCATION L0000013 VOLUME 650285.807 4291310.500 53.65
 LOCATION L0000014 VOLUME 650311.739 4291316.601 53.25
 LOCATION L0000015 VOLUME 650337.671 4291322.703 52.85
 LOCATION L0000016 VOLUME 650363.603 4291328.805 52.45
 LOCATION L0000017 VOLUME 650389.592 4291334.575 52.03
 LOCATION L0000018 VOLUME 650416.065 4291337.558 51.36
 LOCATION L0000019 VOLUME 650442.537 4291340.541 50.69
 LOCATION L0000020 VOLUME 650469.010 4291343.524 50.02
 LOCATION L0000021 VOLUME 650493.276 4291354.226 49.91
 LOCATION L0000022 VOLUME 650519.570 4291356.477 50.17
 LOCATION L0000023 VOLUME 650546.195 4291357.368 50.47
 LOCATION L0000024 VOLUME 650572.821 4291358.260 50.78
 LOCATION L0000025 VOLUME 650599.446 4291359.152 51.08
 LOCATION L0000026 VOLUME 650626.071 4291360.044 51.38
 LOCATION L0000027 VOLUME 650652.696 4291360.935 51.69
 LOCATION L0000028 VOLUME 650679.321 4291361.827 51.99
 LOCATION L0000029 VOLUME 650705.946 4291362.719 52.30
 LOCATION L0000030 VOLUME 650732.571 4291363.611 52.60

** END OF LINE VOLUME SOURCE ID = SLINE21

** -----

** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)

** LINE VOLUME SOURCE ID = SLINE31

** DESCRSRC HAUL TRUCK ROUTE

** PREFIX

** LENGTH OF SIDE = 13.32

** CONFIGURATION = SEPARATED 2W

** EMISSION RATE = 0.0000116

** ELEVATED


```

** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 12
** 650749.382, 4291365.900, 52.80, 3.40, 12.39
** 650769.869, 4291354.193, 53.32, 3.40, 12.39
** 650791.088, 4291354.193, 54.12, 3.40, 12.39
** 650851.817, 4291356.389, 57.08, 3.40, 12.39
** 650904.497, 4291360.779, 59.63, 3.40, 12.39
** 650969.616, 4291360.047, 61.96, 3.40, 12.39
** 651015.712, 4291355.657, 55.86, 3.40, 12.39
** 651047.905, 4291351.267, 55.97, 3.40, 12.39
** 651094.001, 4291343.950, 62.58, 3.40, 12.39
** 651145.218, 4291327.122, 60.86, 3.40, 12.39
** 651181.801, 4291313.220, 59.05, 3.40, 12.39
** 651213.995, 4291296.391, 56.93, 3.40, 12.39
** -----
LOCATION L0004925      VOLUME  650755.165 4291362.596 52.95
LOCATION L0004926      VOLUME  650779.573 4291354.193 53.69
LOCATION L0004927      VOLUME  650806.203 4291354.740 54.86
LOCATION L0004928      VOLUME  650832.826 4291355.702 56.15
LOCATION L0004929      VOLUME  650859.427 4291357.023 57.45
LOCATION L0004930      VOLUME  650885.975 4291359.235 58.73
LOCATION L0004931      VOLUME  650912.551 4291360.688 59.92
LOCATION L0004932      VOLUME  650939.189 4291360.389 60.87
LOCATION L0004933      VOLUME  650965.827 4291360.089 61.82
LOCATION L0004934      VOLUME  650992.364 4291357.880 58.95
LOCATION L0004935      VOLUME  651018.869 4291355.226 55.87
LOCATION L0004936      VOLUME  651045.265 4291351.627 55.96
LOCATION L0004937      VOLUME  651071.584 4291347.508 59.37
LOCATION L0004938      VOLUME  651097.746 4291342.719 62.45
LOCATION L0004939      VOLUME  651123.055 4291334.404 61.60
LOCATION L0004940      VOLUME  651148.314 4291325.945 60.71
LOCATION L0004941      VOLUME  651173.216 4291316.482 59.47
LOCATION L0004942      VOLUME  651197.271 4291305.133 58.03
** END OF LINE VOLUME SOURCE ID = SLINE31
LOCATION VOL41         VOLUME  649972.110 4291194.820 53.080
** DESCRSRC HAUL TRUCK ROUTE
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE51
** DESCRSRC MOVING TRAIN BALLAST DELIVERY
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 3.28E-07
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 12
** 648625.012, 4291380.197, 48.69, 5.65, 11.16

```

** 649080.310, 4290820.972, 49.74, 5.65, 11.16
 ** 649175.989, 4290754.987, 49.69, 5.65, 11.16
 ** 649235.376, 4290725.293, 49.89, 5.65, 11.16
 ** 649281.565, 4290718.695, 49.68, 5.65, 11.16
 ** 649336.003, 4290731.892, 49.81, 5.65, 11.16
 ** 649395.390, 4290774.782, 50.00, 5.65, 11.16
 ** 649664.280, 4290984.286, 51.65, 5.65, 11.16
 ** 649962.864, 4291218.533, 53.58, 5.65, 11.16
 ** 650101.433, 4291291.117, 53.69, 5.65, 11.16
 ** 650320.834, 4291368.650, 53.75, 5.65, 11.16
 ** 650498.994, 4291401.643, 53.85, 5.65, 11.16

**

LOCATION L0004943	VOLUME	648628.800	4291375.544	48.70
LOCATION L0004944	VOLUME	648643.953	4291356.933	48.73
LOCATION L0004945	VOLUME	648659.106	4291338.321	48.77
LOCATION L0004946	VOLUME	648674.258	4291319.710	48.80
LOCATION L0004947	VOLUME	648689.411	4291301.098	48.84
LOCATION L0004948	VOLUME	648704.564	4291282.486	48.87
LOCATION L0004949	VOLUME	648719.717	4291263.875	48.91
LOCATION L0004950	VOLUME	648734.870	4291245.263	48.94
LOCATION L0004951	VOLUME	648750.022	4291226.652	48.98
LOCATION L0004952	VOLUME	648765.175	4291208.040	49.01
LOCATION L0004953	VOLUME	648780.328	4291189.428	49.05
LOCATION L0004954	VOLUME	648795.481	4291170.817	49.08
LOCATION L0004955	VOLUME	648810.634	4291152.205	49.12
LOCATION L0004956	VOLUME	648825.787	4291133.593	49.15
LOCATION L0004957	VOLUME	648840.939	4291114.982	49.19
LOCATION L0004958	VOLUME	648856.092	4291096.370	49.22
LOCATION L0004959	VOLUME	648871.245	4291077.759	49.26
LOCATION L0004960	VOLUME	648886.398	4291059.147	49.29
LOCATION L0004961	VOLUME	648901.551	4291040.535	49.33
LOCATION L0004962	VOLUME	648916.703	4291021.924	49.36
LOCATION L0004963	VOLUME	648931.856	4291003.312	49.40
LOCATION L0004964	VOLUME	648947.009	4290984.701	49.43
LOCATION L0004965	VOLUME	648962.162	4290966.089	49.47
LOCATION L0004966	VOLUME	648977.315	4290947.477	49.50
LOCATION L0004967	VOLUME	648992.468	4290928.866	49.54
LOCATION L0004968	VOLUME	649007.620	4290910.254	49.57
LOCATION L0004969	VOLUME	649022.773	4290891.643	49.61
LOCATION L0004970	VOLUME	649037.926	4290873.031	49.64
LOCATION L0004971	VOLUME	649053.079	4290854.419	49.68
LOCATION L0004972	VOLUME	649068.232	4290835.808	49.71
LOCATION L0004973	VOLUME	649084.319	4290818.208	49.74
LOCATION L0004974	VOLUME	649104.076	4290804.582	49.73
LOCATION L0004975	VOLUME	649123.833	4290790.956	49.72
LOCATION L0004976	VOLUME	649143.590	4290777.331	49.71
LOCATION L0004977	VOLUME	649163.347	4290763.705	49.70
LOCATION L0004978	VOLUME	649183.720	4290751.121	49.72
LOCATION L0004979	VOLUME	649205.186	4290740.388	49.79
LOCATION L0004980	VOLUME	649226.652	4290729.655	49.86

LOCATION	L0004981	VOLUME	649249.479	4290723.278	49.83
LOCATION	L0004982	VOLUME	649273.238	4290719.884	49.72
LOCATION	L0004983	VOLUME	649296.715	4290722.367	49.72
LOCATION	L0004984	VOLUME	649320.039	4290728.022	49.77
LOCATION	L0004985	VOLUME	649342.143	4290736.326	49.83
LOCATION	L0004986	VOLUME	649361.599	4290750.378	49.89
LOCATION	L0004987	VOLUME	649381.055	4290764.429	49.95
LOCATION	L0004988	VOLUME	649400.374	4290778.665	50.03
LOCATION	L0004989	VOLUME	649419.306	4290793.416	50.15
LOCATION	L0004990	VOLUME	649438.238	4290808.166	50.26
LOCATION	L0004991	VOLUME	649457.170	4290822.917	50.38
LOCATION	L0004992	VOLUME	649476.101	4290837.668	50.50
LOCATION	L0004993	VOLUME	649495.033	4290852.418	50.61
LOCATION	L0004994	VOLUME	649513.965	4290867.169	50.73
LOCATION	L0004995	VOLUME	649532.897	4290881.920	50.84
LOCATION	L0004996	VOLUME	649551.829	4290896.670	50.96
LOCATION	L0004997	VOLUME	649570.761	4290911.421	51.08
LOCATION	L0004998	VOLUME	649589.693	4290926.172	51.19
LOCATION	L0004999	VOLUME	649608.625	4290940.922	51.31
LOCATION	L0005000	VOLUME	649627.557	4290955.673	51.42
LOCATION	L0005001	VOLUME	649646.489	4290970.424	51.54
LOCATION	L0005002	VOLUME	649665.418	4290985.178	51.66
LOCATION	L0005003	VOLUME	649684.300	4290999.992	51.78
LOCATION	L0005004	VOLUME	649703.183	4291014.806	51.90
LOCATION	L0005005	VOLUME	649722.065	4291029.620	52.02
LOCATION	L0005006	VOLUME	649740.948	4291044.434	52.15
LOCATION	L0005007	VOLUME	649759.830	4291059.248	52.27
LOCATION	L0005008	VOLUME	649778.713	4291074.061	52.39
LOCATION	L0005009	VOLUME	649797.595	4291088.875	52.51
LOCATION	L0005010	VOLUME	649816.478	4291103.689	52.63
LOCATION	L0005011	VOLUME	649835.360	4291118.503	52.76
LOCATION	L0005012	VOLUME	649854.243	4291133.317	52.88
LOCATION	L0005013	VOLUME	649873.125	4291148.131	53.00
LOCATION	L0005014	VOLUME	649892.008	4291162.945	53.12
LOCATION	L0005015	VOLUME	649910.890	4291177.759	53.24
LOCATION	L0005016	VOLUME	649929.773	4291192.573	53.37
LOCATION	L0005017	VOLUME	649948.655	4291207.386	53.49
LOCATION	L0005018	VOLUME	649968.126	4291221.290	53.58
LOCATION	L0005019	VOLUME	649989.386	4291232.426	53.60
LOCATION	L0005020	VOLUME	650010.646	4291243.562	53.62
LOCATION	L0005021	VOLUME	650031.906	4291254.699	53.63
LOCATION	L0005022	VOLUME	650053.166	4291265.835	53.65
LOCATION	L0005023	VOLUME	650074.426	4291276.971	53.67
LOCATION	L0005024	VOLUME	650095.686	4291288.107	53.69
LOCATION	L0005025	VOLUME	650117.945	4291296.952	53.69
LOCATION	L0005026	VOLUME	650140.573	4291304.949	53.70
LOCATION	L0005027	VOLUME	650163.202	4291312.945	53.71
LOCATION	L0005028	VOLUME	650185.831	4291320.942	53.71
LOCATION	L0005029	VOLUME	650208.459	4291328.939	53.72
LOCATION	L0005030	VOLUME	650231.088	4291336.935	53.73

LOCATION L0005031	VOLUME	650253.716	4291344.932	53.73
LOCATION L0005032	VOLUME	650276.345	4291352.928	53.74
LOCATION L0005033	VOLUME	650298.974	4291360.925	53.74
LOCATION L0005034	VOLUME	650321.635	4291368.798	53.75
LOCATION L0005035	VOLUME	650345.234	4291373.168	53.76
LOCATION L0005036	VOLUME	650368.833	4291377.539	53.78
LOCATION L0005037	VOLUME	650392.432	4291381.909	53.79
LOCATION L0005038	VOLUME	650416.030	4291386.279	53.80
LOCATION L0005039	VOLUME	650439.629	4291390.649	53.82
LOCATION L0005040	VOLUME	650463.228	4291395.019	53.83
LOCATION L0005041	VOLUME	650486.827	4291399.389	53.84
** END OF LINE VOLUME SOURCE ID = SLINE51				
LOCATION VOL1	VOLUME	650665.251	4291406.930	53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION EQUIPMENT TRUCKS				
LOCATION VOL2	VOLUME	650563.968	4291398.425	53.160
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST WORK AREA #2				
LOCATION VOL3	VOLUME	650456.370	4291399.520	53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION EQUIPMENT EXHAUST				
** -----				
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES				
** LINE VOLUME SOURCE ID = SLINE43				
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3				
** PREFIX				
** LENGTH OF SIDE = 87.00				
** CONFIGURATION = ADJACENT				
** EMISSION RATE = 0.0000159				
** ELEVATED				
** VERTICAL DIMENSION = 6.80				
** SZINIT = 1.58				
** NODES = 8				
** 650396.283, 4291415.230, 53.09, 3.40, 40.47				
** 650339.492, 4291407.868, 54.51, 3.40, 40.47				
** 650291.115, 4291397.351, 54.58, 3.40, 40.47				
** 650226.962, 4291374.214, 54.26, 3.40, 40.47				
** 650171.223, 4291357.387, 54.56, 3.40, 40.47				
** 650088.140, 4291323.733, 54.83, 3.40, 40.47				
** 649981.921, 4291266.943, 52.81, 3.40, 40.47				
** 649931.440, 4291236.444, 52.99, 3.40, 40.47				
** -----				
LOCATION L0005042	VOLUME	650353.144	4291409.638	54.17
LOCATION L0005043	VOLUME	650268.796	4291389.301	54.47
LOCATION L0005044	VOLUME	650186.248	4291361.923	54.48
LOCATION L0005045	VOLUME	650105.134	4291330.617	54.77
LOCATION L0005046	VOLUME	650027.586	4291291.358	53.68
LOCATION L0005047	VOLUME	649951.778	4291248.731	52.92
** END OF LINE VOLUME SOURCE ID = SLINE43				
** -----				
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES				
** LINE VOLUME SOURCE ID = SLINE44				
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3				

```

** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 3
** 649898.118, 4291201.738, 52.60, 3.40, 26.51
** 649581.371, 4290941.907, 50.98, 3.40, 26.51
** 649582.608, 4290945.618, 50.95, 3.40, 26.51
** -----
LOCATION L0005048      VOLUME    649876.084 4291183.663 52.49
LOCATION L0005049      VOLUME    649832.014 4291147.512 52.26
LOCATION L0005050      VOLUME    649787.945 4291111.362 52.04
LOCATION L0005051      VOLUME    649743.875 4291075.211 51.81
LOCATION L0005052      VOLUME    649699.806 4291039.060 51.59
LOCATION L0005053      VOLUME    649655.736 4291002.909 51.36
LOCATION L0005054      VOLUME    649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE44
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE45
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649582.567, 4290938.264, 50.99, 3.40, 36.74
** 649458.557, 4290838.151, 50.39, 3.40, 36.74
** -----
LOCATION L0005055      VOLUME    649551.832 4290913.452 50.84
LOCATION L0005056      VOLUME    649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE45
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE46
** DESCRSRC CONSTRUCITON EQUIPMENT EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2

```

```

** 649445.530, 4290815.617, 50.23, 3.40, 23.26
** 649303.390, 4290698.508, 49.82, 3.40, 23.26
** -----
LOCATION L0005057      VOLUME  649426.235 4290799.720 50.17
LOCATION L0005058      VOLUME  649387.646 4290767.926 50.06
LOCATION L0005059      VOLUME  649349.056 4290736.133 49.95
LOCATION L0005060      VOLUME  649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE46
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE47
** DESCRSRC CONSTRUCTION EQUIPMENT TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649138.007, 4290774.495, 49.32, 3.40, 11.63
** 649266.737, 4290695.826, 49.56, 3.40, 11.63
** -----
LOCATION L0005061      VOLUME  649148.673 4290767.977 49.34
LOCATION L0005062      VOLUME  649170.005 4290754.941 49.38
LOCATION L0005063      VOLUME  649191.337 4290741.904 49.42
LOCATION L0005064      VOLUME  649212.669 4290728.868 49.46
LOCATION L0005065      VOLUME  649234.001 4290715.832 49.50
LOCATION L0005066      VOLUME  649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE47
LOCATION VOL12         VOLUME    650665.251 4291406.930      53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION PICKUP TRUCKS
LOCATION VOL22         VOLUME    650563.968 4291398.425      53.160
** DESCRSRC CONSTRUCTION EQUIPMENT PICKUP EXHAUST WORK AREA #2
LOCATION VOL32         VOLUME    650456.370 4291399.520      53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION PICKUP TRUCK EXHAUST
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE432
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 8
** 650396.283, 4291415.230, 53.09, 1.30, 40.47
** 650339.492, 4291407.868, 54.51, 1.30, 40.47

```

```

** 650291.115, 4291397.351, 54.58, 1.30, 40.47
** 650226.962, 4291374.214, 54.26, 1.30, 40.47
** 650171.223, 4291357.387, 54.56, 1.30, 40.47
** 650088.140, 4291323.733, 54.83, 1.30, 40.47
** 649981.921, 4291266.943, 52.81, 1.30, 40.47
** 649931.440, 4291236.444, 52.99, 1.30, 40.47
** -----
LOCATION L0005067      VOLUME  650353.144 4291409.638 54.17
LOCATION L0005068      VOLUME  650268.796 4291389.301 54.47
LOCATION L0005069      VOLUME  650186.248 4291361.923 54.48
LOCATION L0005070      VOLUME  650105.134 4291330.617 54.77
LOCATION L0005071      VOLUME  650027.586 4291291.358 53.68
LOCATION L0005072      VOLUME  649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE432
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE444
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 3
** 649898.118, 4291201.738, 52.60, 1.30, 26.51
** 649581.371, 4290941.907, 50.98, 1.30, 26.51
** 649582.608, 4290945.618, 50.95, 1.30, 26.51
** -----
LOCATION L0005073      VOLUME  649876.084 4291183.663 52.49
LOCATION L0005074      VOLUME  649832.014 4291147.512 52.26
LOCATION L0005075      VOLUME  649787.945 4291111.362 52.04
LOCATION L0005076      VOLUME  649743.875 4291075.211 51.81
LOCATION L0005077      VOLUME  649699.806 4291039.060 51.59
LOCATION L0005078      VOLUME  649655.736 4291002.909 51.36
LOCATION L0005079      VOLUME  649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE444
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE452
** DESCRSRC CONSTRUCTION PICKUP TRUCK EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2

```

```

** 649582.567, 4290938.264, 50.99, 1.30, 36.74
** 649458.557, 4290838.151, 50.39, 1.30, 36.74
** -----
    LOCATION L0005080      VOLUME   649551.832 4290913.452 50.84
    LOCATION L0005081      VOLUME   649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE452
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE462
** DESCRSRC CONSTRUCITON PICKUP TUCK EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649445.530, 4290815.617, 50.23, 1.30, 23.26
** 649303.390, 4290698.508, 49.82, 1.30, 23.26
** -----
    LOCATION L0005082      VOLUME   649426.235 4290799.720 50.17
    LOCATION L0005083      VOLUME   649387.646 4290767.926 50.06
    LOCATION L0005084      VOLUME   649349.056 4290736.133 49.95
    LOCATION L0005085      VOLUME   649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE462
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE472
** DESCRSRC CONSTRUCTION PICKUP TRUCK TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649138.007, 4290774.495, 49.32, 1.30, 11.63
** 649266.737, 4290695.826, 49.56, 1.30, 11.63
** -----
    LOCATION L0005086      VOLUME   649148.673 4290767.977 49.34
    LOCATION L0005087      VOLUME   649170.005 4290754.941 49.38
    LOCATION L0005088      VOLUME   649191.337 4290741.904 49.42
    LOCATION L0005089      VOLUME   649212.669 4290728.868 49.46
    LOCATION L0005090      VOLUME   649234.001 4290715.832 49.50
    LOCATION L0005091      VOLUME   649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE472
** SOURCE PARAMETERS **
** LINE VOLUME SOURCE ID = SLINE21

```


SRCPARAM	L0000001	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000002	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000003	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000004	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000005	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000006	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000007	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000008	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000009	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000010	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000011	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000012	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000013	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000014	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000015	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000016	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000017	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000018	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000019	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000020	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000021	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000022	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000023	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000024	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000025	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000026	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000027	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000028	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000029	0.0000003867	3.40	12.39	1.58
SRCPARAM	L0000030	0.0000003867	3.40	12.39	1.58

**

** LINE VOLUME SOURCE ID = SLINE31

SRCPARAM	L0004925	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004926	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004927	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004928	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004929	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004930	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004931	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004932	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004933	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004934	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004935	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004936	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004937	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004938	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004939	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004940	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004941	0.0000006444	3.40	12.39	1.58
SRCPARAM	L0004942	0.0000006444	3.40	12.39	1.58

**

SRCPARAM VOL41 0.0000116 3.400 3.951 3.160

** LINE VOLUME SOURCE ID = SLINE51

SRCPARAM L0004943	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004944	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004945	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004946	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004947	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004948	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004949	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004950	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004951	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004952	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004953	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004954	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004955	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004956	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004957	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004958	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004959	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004960	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004961	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004962	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004963	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004964	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004965	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004966	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004967	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004968	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004969	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004970	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004971	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004972	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004973	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004974	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004975	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004976	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004977	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004978	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004979	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004980	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004981	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004982	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004983	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004984	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004985	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004986	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004987	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004988	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004989	0.000000003313	5.65	11.16	2.63

[illegible]

SRCPARAM	L0005040	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005041	0.000000003313	5.65	11.16	2.63
** -----					
SRCPARAM	VOL1	0.0000159	3.400	11.628	3.160
SRCPARAM	VOL2	0.0000159	3.400	20.233	3.160
SRCPARAM	VOL3	0.0000159	3.400	15.116	3.160
**	LINE VOLUME SOURCE ID = SLINE43				
SRCPARAM	L0005042	0.00000265	3.40	40.47	1.58
SRCPARAM	L0005043	0.00000265	3.40	40.47	1.58
SRCPARAM	L0005044	0.00000265	3.40	40.47	1.58
SRCPARAM	L0005045	0.00000265	3.40	40.47	1.58
SRCPARAM	L0005046	0.00000265	3.40	40.47	1.58
SRCPARAM	L0005047	0.00000265	3.40	40.47	1.58
** -----					
**	LINE VOLUME SOURCE ID = SLINE44				
SRCPARAM	L0005048	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005049	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005050	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005051	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005052	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005053	0.000002271	3.40	26.51	1.58
SRCPARAM	L0005054	0.000002271	3.40	26.51	1.58
** -----					
**	LINE VOLUME SOURCE ID = SLINE45				
SRCPARAM	L0005055	0.00000795	3.40	36.74	1.58
SRCPARAM	L0005056	0.00000795	3.40	36.74	1.58
** -----					
**	LINE VOLUME SOURCE ID = SLINE46				
SRCPARAM	L0005057	0.000003975	3.40	23.26	1.58
SRCPARAM	L0005058	0.000003975	3.40	23.26	1.58
SRCPARAM	L0005059	0.000003975	3.40	23.26	1.58
SRCPARAM	L0005060	0.000003975	3.40	23.26	1.58
** -----					
**	LINE VOLUME SOURCE ID = SLINE47				
SRCPARAM	L0005061	0.00000265	3.40	11.63	1.58
SRCPARAM	L0005062	0.00000265	3.40	11.63	1.58
SRCPARAM	L0005063	0.00000265	3.40	11.63	1.58
SRCPARAM	L0005064	0.00000265	3.40	11.63	1.58
SRCPARAM	L0005065	0.00000265	3.40	11.63	1.58
SRCPARAM	L0005066	0.00000265	3.40	11.63	1.58
** -----					
SRCPARAM	VOL12	0.0	1.300	11.628	1.210
SRCPARAM	VOL22	0.0	1.300	20.233	1.210
SRCPARAM	VOL32	0.0	1.300	15.116	1.210
**	LINE VOLUME SOURCE ID = SLINE432				
SRCPARAM	L0005067	0.0	1.30	40.47	0.60
SRCPARAM	L0005068	0.0	1.30	40.47	0.60
SRCPARAM	L0005069	0.0	1.30	40.47	0.60
SRCPARAM	L0005070	0.0	1.30	40.47	0.60
SRCPARAM	L0005071	0.0	1.30	40.47	0.60

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SRCPARAM L0005072      0.0      1.30      40.47      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE444
SRCPARAM L0005073      0.0      1.30      26.51      0.60
SRCPARAM L0005074      0.0      1.30      26.51      0.60
SRCPARAM L0005075      0.0      1.30      26.51      0.60
SRCPARAM L0005076      0.0      1.30      26.51      0.60
SRCPARAM L0005077      0.0      1.30      26.51      0.60
SRCPARAM L0005078      0.0      1.30      26.51      0.60
SRCPARAM L0005079      0.0      1.30      26.51      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE452
SRCPARAM L0005080      0.0      1.30      36.74      0.60
SRCPARAM L0005081      0.0      1.30      36.74      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE462
SRCPARAM L0005082      0.0      1.30      23.26      0.60
SRCPARAM L0005083      0.0      1.30      23.26      0.60
SRCPARAM L0005084      0.0      1.30      23.26      0.60
SRCPARAM L0005085      0.0      1.30      23.26      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE472
SRCPARAM L0005086      0.0      1.30      11.63      0.60
SRCPARAM L0005087      0.0      1.30      11.63      0.60
SRCPARAM L0005088      0.0      1.30      11.63      0.60
SRCPARAM L0005089      0.0      1.30      11.63      0.60
SRCPARAM L0005090      0.0      1.30      11.63      0.60
SRCPARAM L0005091      0.0      1.30      11.63      0.60
** -----
URBANSRC ALL
SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD RECEPTOR PATHWAY
*****
**
**
RE STARTING
  INCLUDED "AERMOD LAYOVER CONSTRUCT.ROU"
RE FINISHED
**
*****
** AERMOD METEOROLOGY PATHWAY
*****
**
**
ME STARTING
  SURFFILE "..\\..\\MET DATA\\14-18.SFC"
  PROFFILE "..\\..\\MET DATA\\14-18.PFL"

```

```

SURFDATA 93225 2014
UAIRDATA 23230 2014 OAKLAND/WSO_AP
PROFBASE 8.0 METERS
ME FINISHED
**
*****
** AERMOD OUTPUT PATHWAY
*****
**
**
OU STARTING
** AUTO-GENERATED PLOTFILES
  PLOTFILE PERIOD ALL "AERMOD LAYOVER CONSTRUCT UNMITIGATED\PE00GALL.PLT" 31
  FILEFORM EXP
  SUMMFILE "AERMOD LAYOVER CONSTRUCT.SUM"
OU FINISHED

```

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

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

```

A Total of      0 Fatal Error Message(s)
A Total of     30 Warning Message(s)
A Total of      0 Informational Message(s)

```

```

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

```

```

***** WARNING MESSAGES *****
SO W320   690      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   691      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   692      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   694      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   695      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   696      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   697      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   698      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320   699      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS

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SO W320	702	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	703	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	704	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	705	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	706	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	707	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	708	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	711	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	712	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	715	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	716	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	717	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	718	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	721	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	722	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	723	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	724	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	725	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	726	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
ME W186	752	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50		
ME W187	752	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 *** SETUP Finishes Successfully ***

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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 *** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

** Model Options Selected:

- * Model Uses Regulatory DEFAULT Options
- * Model Is Setup For Calculation of Average CONCentration Values.
- * NO GAS DEPOSITION Data Provided.
- * NO PARTICLE DEPOSITION Data Provided.
- * Model Uses NO DRY DEPLETION. DDPLETE = F
- * Model Uses NO WET DEPLETION. WETDPLT = F
- * Stack-tip Downwash.
- * Model Accounts for ELEVated Terrain Effects.
- * Use Calms Processing Routine.
- * Use Missing Data Processing Routine.
- * No Exponential Decay.
- * Model Uses URBAN Dispersion Algorithm for the SBL for 204 Source(s),
for Total of 1 Urban Area(s):
- Urban Population = 2500000.0 ; Urban Roughness Length = 1.000 m
- * Urban Roughness Length of 1.0 Meter Used.
- * ADJ_U* - Use ADJ_U* option for SBL in AERMET
- * CCVR_Sub - Meteorological data includes CCVR substitutions
- * TEMP_Sub - Meteorological data includes TEMP substitutions
- * Model Accepts FLAGPOLE Receptor . Heights.
- * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes: 204 Source(s); 1 Source Group(s); and 329
Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 204 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)
and: 0 SWPOINT source(s)

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

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

NOTE: Option for EXponential format used in formatted output result files
(FILEFORM Keyword)

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay
Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: AERMOD LAYOVER CONSTRUCT.ERR

**File for Summary of Results: AERMOD LAYOVER CONSTRUCT.SUM

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
SOURCE	EMISSION RATE				
SZ	SOURCE	PART. (GRAMS/SEC)	X	Y	SY
		SCALAR VARY			

ID (METERS)	CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
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L0000001	0	0.38670E-06	649993.6	4291183.8	52.6	3.40	12.39
1.58 YES							
L0000002	0	0.38670E-06	650017.0	4291196.4	52.7	3.40	12.39
1.58 YES							
L0000003	0	0.38670E-06	650040.5	4291209.1	52.8	3.40	12.39
1.58 YES							
L0000004	0	0.38670E-06	650063.9	4291221.7	52.9	3.40	12.39
1.58 YES							
L0000005	0	0.38670E-06	650087.4	4291234.4	53.0	3.40	12.39
1.58 YES							
L0000006	0	0.38670E-06	650110.8	4291247.0	53.1	3.40	12.39
1.58 YES							
L0000007	0	0.38670E-06	650134.9	4291258.4	53.2	3.40	12.39
1.58 YES							
L0000008	0	0.38670E-06	650159.5	4291268.4	53.3	3.40	12.39
1.58 YES							
L0000009	0	0.38670E-06	650184.2	4291278.5	53.3	3.40	12.39
1.58 YES							
L0000010	0	0.38670E-06	650209.3	4291287.6	53.4	3.40	12.39
1.58 YES							
L0000011	0	0.38670E-06	650234.8	4291295.2	53.5	3.40	12.39
1.58 YES							
L0000012	0	0.38670E-06	650260.3	4291302.9	53.6	3.40	12.39
1.58 YES							
L0000013	0	0.38670E-06	650285.8	4291310.5	53.6	3.40	12.39
1.58 YES							
L0000014	0	0.38670E-06	650311.7	4291316.6	53.2	3.40	12.39
1.58 YES							
L0000015	0	0.38670E-06	650337.7	4291322.7	52.8	3.40	12.39
1.58 YES							
L0000016	0	0.38670E-06	650363.6	4291328.8	52.4	3.40	12.39
1.58 YES							
L0000017	0	0.38670E-06	650389.6	4291334.6	52.0	3.40	12.39
1.58 YES							
L0000018	0	0.38670E-06	650416.1	4291337.6	51.4	3.40	12.39
1.58 YES							
L0000019	0	0.38670E-06	650442.5	4291340.5	50.7	3.40	12.39
1.58 YES							
L0000020	0	0.38670E-06	650469.0	4291343.5	50.0	3.40	12.39
1.58 YES							
L0000021	0	0.38670E-06	650493.3	4291354.2	49.9	3.40	12.39
1.58 YES							
L0000022	0	0.38670E-06	650519.6	4291356.5	50.2	3.40	12.39
1.58 YES							
L0000023	0	0.38670E-06	650546.2	4291357.4	50.5	3.40	12.39

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.
SZ	SOURCE	SCALAR VARY			HEIGHT
					SY

ID (METERS)	CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
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L0004935	0	0.64440E-06	651018.9	4291355.2	55.9	3.40	12.39
1.58 YES							
L0004936	0	0.64440E-06	651045.3	4291351.6	56.0	3.40	12.39
1.58 YES							
L0004937	0	0.64440E-06	651071.6	4291347.5	59.4	3.40	12.39
1.58 YES							
L0004938	0	0.64440E-06	651097.7	4291342.7	62.4	3.40	12.39
1.58 YES							
L0004939	0	0.64440E-06	651123.1	4291334.4	61.6	3.40	12.39
1.58 YES							
L0004940	0	0.64440E-06	651148.3	4291325.9	60.7	3.40	12.39
1.58 YES							
L0004941	0	0.64440E-06	651173.2	4291316.5	59.5	3.40	12.39
1.58 YES							
L0004942	0	0.64440E-06	651197.3	4291305.1	58.0	3.40	12.39
1.58 YES							
VOL41	0	0.11600E-04	649972.1	4291194.8	53.1	3.40	3.95
3.16 YES							
L0004943	0	0.33130E-08	648628.8	4291375.5	48.7	5.65	11.16
2.63 YES							
L0004944	0	0.33130E-08	648644.0	4291356.9	48.7	5.65	11.16
2.63 YES							
L0004945	0	0.33130E-08	648659.1	4291338.3	48.8	5.65	11.16
2.63 YES							
L0004946	0	0.33130E-08	648674.3	4291319.7	48.8	5.65	11.16
2.63 YES							
L0004947	0	0.33130E-08	648689.4	4291301.1	48.8	5.65	11.16
2.63 YES							
L0004948	0	0.33130E-08	648704.6	4291282.5	48.9	5.65	11.16
2.63 YES							
L0004949	0	0.33130E-08	648719.7	4291263.9	48.9	5.65	11.16
2.63 YES							
L0004950	0	0.33130E-08	648734.9	4291245.3	48.9	5.65	11.16
2.63 YES							
L0004951	0	0.33130E-08	648750.0	4291226.7	49.0	5.65	11.16
2.63 YES							
L0004952	0	0.33130E-08	648765.2	4291208.0	49.0	5.65	11.16
2.63 YES							
L0004953	0	0.33130E-08	648780.3	4291189.4	49.0	5.65	11.16
2.63 YES							
L0004954	0	0.33130E-08	648795.5	4291170.8	49.1	5.65	11.16
2.63 YES							
L0004955	0	0.33130E-08	648810.6	4291152.2	49.1	5.65	11.16
2.63 YES							
L0004956	0	0.33130E-08	648825.8	4291133.6	49.1	5.65	11.16

2.63	YES							
L0004957		0	0.33130E-08	648840.9	4291115.0	49.2	5.65	11.16
2.63	YES							
L0004958		0	0.33130E-08	648856.1	4291096.4	49.2	5.65	11.16
2.63	YES							
L0004959		0	0.33130E-08	648871.2	4291077.8	49.3	5.65	11.16
2.63	YES							
L0004960		0	0.33130E-08	648886.4	4291059.1	49.3	5.65	11.16
2.63	YES							
L0004961		0	0.33130E-08	648901.6	4291040.5	49.3	5.65	11.16
2.63	YES							
L0004962		0	0.33130E-08	648916.7	4291021.9	49.4	5.65	11.16
2.63	YES							
L0004963		0	0.33130E-08	648931.9	4291003.3	49.4	5.65	11.16
2.63	YES							
L0004964		0	0.33130E-08	648947.0	4290984.7	49.4	5.65	11.16
2.63	YES							
L0004965		0	0.33130E-08	648962.2	4290966.1	49.5	5.65	11.16
2.63	YES							
L0004966		0	0.33130E-08	648977.3	4290947.5	49.5	5.65	11.16
2.63	YES							
L0004967		0	0.33130E-08	648992.5	4290928.9	49.5	5.65	11.16
2.63	YES							
L0004968		0	0.33130E-08	649007.6	4290910.3	49.6	5.65	11.16
2.63	YES							
L0004969		0	0.33130E-08	649022.8	4290891.6	49.6	5.65	11.16
2.63	YES							
L0004970		0	0.33130E-08	649037.9	4290873.0	49.6	5.65	11.16
2.63	YES							
L0004971		0	0.33130E-08	649053.1	4290854.4	49.7	5.65	11.16
2.63	YES							
L0004972		0	0.33130E-08	649068.2	4290835.8	49.7	5.65	11.16
2.63	YES							
L0004973		0	0.33130E-08	649084.3	4290818.2	49.7	5.65	11.16

*** AERMOD - VERSION 22112 ***
 MITIGATED
 *** AERMET - VERSION 19191 ***
 *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
SOURCE	SCALAR	EMISSION RATE			
SZ	SOURCE	PART. (GRAMS/SEC)	X	Y	SY
		VARY			

ID (METERS)	CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
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L0004974	0	0.33130E-08	649104.1	4290804.6	49.7	5.65	11.16
2.63 YES							
L0004975	0	0.33130E-08	649123.8	4290791.0	49.7	5.65	11.16
2.63 YES							
L0004976	0	0.33130E-08	649143.6	4290777.3	49.7	5.65	11.16
2.63 YES							
L0004977	0	0.33130E-08	649163.3	4290763.7	49.7	5.65	11.16
2.63 YES							
L0004978	0	0.33130E-08	649183.7	4290751.1	49.7	5.65	11.16
2.63 YES							
L0004979	0	0.33130E-08	649205.2	4290740.4	49.8	5.65	11.16
2.63 YES							
L0004980	0	0.33130E-08	649226.7	4290729.7	49.9	5.65	11.16
2.63 YES							
L0004981	0	0.33130E-08	649249.5	4290723.3	49.8	5.65	11.16
2.63 YES							
L0004982	0	0.33130E-08	649273.2	4290719.9	49.7	5.65	11.16
2.63 YES							
L0004983	0	0.33130E-08	649296.7	4290722.4	49.7	5.65	11.16
2.63 YES							
L0004984	0	0.33130E-08	649320.0	4290728.0	49.8	5.65	11.16
2.63 YES							
L0004985	0	0.33130E-08	649342.1	4290736.3	49.8	5.65	11.16
2.63 YES							
L0004986	0	0.33130E-08	649361.6	4290750.4	49.9	5.65	11.16
2.63 YES							
L0004987	0	0.33130E-08	649381.1	4290764.4	49.9	5.65	11.16
2.63 YES							
L0004988	0	0.33130E-08	649400.4	4290778.7	50.0	5.65	11.16
2.63 YES							
L0004989	0	0.33130E-08	649419.3	4290793.4	50.1	5.65	11.16
2.63 YES							
L0004990	0	0.33130E-08	649438.2	4290808.2	50.3	5.65	11.16
2.63 YES							
L0004991	0	0.33130E-08	649457.2	4290822.9	50.4	5.65	11.16
2.63 YES							
L0004992	0	0.33130E-08	649476.1	4290837.7	50.5	5.65	11.16
2.63 YES							
L0004993	0	0.33130E-08	649495.0	4290852.4	50.6	5.65	11.16
2.63 YES							
L0004994	0	0.33130E-08	649514.0	4290867.2	50.7	5.65	11.16
2.63 YES							
L0004995	0	0.33130E-08	649532.9	4290881.9	50.8	5.65	11.16
2.63 YES							
L0004996	0	0.33130E-08	649551.8	4290896.7	51.0	5.65	11.16

2.63	YES							
L0004997		0	0.33130E-08	649570.8	4290911.4	51.1	5.65	11.16
2.63	YES							
L0004998		0	0.33130E-08	649589.7	4290926.2	51.2	5.65	11.16
2.63	YES							
L0004999		0	0.33130E-08	649608.6	4290940.9	51.3	5.65	11.16
2.63	YES							
L0005000		0	0.33130E-08	649627.6	4290955.7	51.4	5.65	11.16
2.63	YES							
L0005001		0	0.33130E-08	649646.5	4290970.4	51.5	5.65	11.16
2.63	YES							
L0005002		0	0.33130E-08	649665.4	4290985.2	51.7	5.65	11.16
2.63	YES							
L0005003		0	0.33130E-08	649684.3	4291000.0	51.8	5.65	11.16
2.63	YES							
L0005004		0	0.33130E-08	649703.2	4291014.8	51.9	5.65	11.16
2.63	YES							
L0005005		0	0.33130E-08	649722.1	4291029.6	52.0	5.65	11.16
2.63	YES							
L0005006		0	0.33130E-08	649740.9	4291044.4	52.1	5.65	11.16
2.63	YES							
L0005007		0	0.33130E-08	649759.8	4291059.2	52.3	5.65	11.16
2.63	YES							
L0005008		0	0.33130E-08	649778.7	4291074.1	52.4	5.65	11.16
2.63	YES							
L0005009		0	0.33130E-08	649797.6	4291088.9	52.5	5.65	11.16
2.63	YES							
L0005010		0	0.33130E-08	649816.5	4291103.7	52.6	5.65	11.16
2.63	YES							
L0005011		0	0.33130E-08	649835.4	4291118.5	52.8	5.65	11.16
2.63	YES							
L0005012		0	0.33130E-08	649854.2	4291133.3	52.9	5.65	11.16
2.63	YES							
L0005013		0	0.33130E-08	649873.1	4291148.1	53.0	5.65	11.16

*** AERMOD - VERSION 22112 ***
 MITIGATED
 *** AERMET - VERSION 19191 ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
SOURCE	EMISSION RATE				
SZ	SOURCE	PART. (GRAMS/SEC)	X	Y	SY
		SCALAR VARY			

ID (METERS)	CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
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L0005014	0	0.33130E-08	649892.0	4291162.9	53.1	5.65	11.16
2.63 YES							
L0005015	0	0.33130E-08	649910.9	4291177.8	53.2	5.65	11.16
2.63 YES							
L0005016	0	0.33130E-08	649929.8	4291192.6	53.4	5.65	11.16
2.63 YES							
L0005017	0	0.33130E-08	649948.7	4291207.4	53.5	5.65	11.16
2.63 YES							
L0005018	0	0.33130E-08	649968.1	4291221.3	53.6	5.65	11.16
2.63 YES							
L0005019	0	0.33130E-08	649989.4	4291232.4	53.6	5.65	11.16
2.63 YES							
L0005020	0	0.33130E-08	650010.6	4291243.6	53.6	5.65	11.16
2.63 YES							
L0005021	0	0.33130E-08	650031.9	4291254.7	53.6	5.65	11.16
2.63 YES							
L0005022	0	0.33130E-08	650053.2	4291265.8	53.6	5.65	11.16
2.63 YES							
L0005023	0	0.33130E-08	650074.4	4291277.0	53.7	5.65	11.16
2.63 YES							
L0005024	0	0.33130E-08	650095.7	4291288.1	53.7	5.65	11.16
2.63 YES							
L0005025	0	0.33130E-08	650117.9	4291297.0	53.7	5.65	11.16
2.63 YES							
L0005026	0	0.33130E-08	650140.6	4291304.9	53.7	5.65	11.16
2.63 YES							
L0005027	0	0.33130E-08	650163.2	4291312.9	53.7	5.65	11.16
2.63 YES							
L0005028	0	0.33130E-08	650185.8	4291320.9	53.7	5.65	11.16
2.63 YES							
L0005029	0	0.33130E-08	650208.5	4291328.9	53.7	5.65	11.16
2.63 YES							
L0005030	0	0.33130E-08	650231.1	4291336.9	53.7	5.65	11.16
2.63 YES							
L0005031	0	0.33130E-08	650253.7	4291344.9	53.7	5.65	11.16
2.63 YES							
L0005032	0	0.33130E-08	650276.3	4291352.9	53.7	5.65	11.16
2.63 YES							
L0005033	0	0.33130E-08	650299.0	4291360.9	53.7	5.65	11.16
2.63 YES							
L0005034	0	0.33130E-08	650321.6	4291368.8	53.8	5.65	11.16
2.63 YES							
L0005035	0	0.33130E-08	650345.2	4291373.2	53.8	5.65	11.16
2.63 YES							
L0005036	0	0.33130E-08	650368.8	4291377.5	53.8	5.65	11.16

2.63	YES							
L0005037		0	0.33130E-08	650392.4	4291381.9	53.8	5.65	11.16
2.63	YES							
L0005038		0	0.33130E-08	650416.0	4291386.3	53.8	5.65	11.16
2.63	YES							
L0005039		0	0.33130E-08	650439.6	4291390.6	53.8	5.65	11.16
2.63	YES							
L0005040		0	0.33130E-08	650463.2	4291395.0	53.8	5.65	11.16
2.63	YES							
L0005041		0	0.33130E-08	650486.8	4291399.4	53.8	5.65	11.16
2.63	YES							
VOL1		0	0.15900E-04	650665.3	4291406.9	53.2	3.40	11.63
3.16	YES							
VOL2		0	0.15900E-04	650564.0	4291398.4	53.2	3.40	20.23
3.16	YES							
VOL3		0	0.15900E-04	650456.4	4291399.5	53.9	3.40	15.12
3.16	YES							
L0005042		0	0.26500E-05	650353.1	4291409.6	54.2	3.40	40.47
1.58	YES							
L0005043		0	0.26500E-05	650268.8	4291389.3	54.5	3.40	40.47
1.58	YES							
L0005044		0	0.26500E-05	650186.2	4291361.9	54.5	3.40	40.47
1.58	YES							
L0005045		0	0.26500E-05	650105.1	4291330.6	54.8	3.40	40.47
1.58	YES							
L0005046		0	0.26500E-05	650027.6	4291291.4	53.7	3.40	40.47
1.58	YES							
L0005047		0	0.26500E-05	649951.8	4291248.7	52.9	3.40	40.47
1.58	YES							
L0005048		0	0.22710E-05	649876.1	4291183.7	52.5	3.40	26.51
1.58	YES							
L0005049		0	0.22710E-05	649832.0	4291147.5	52.3	3.40	26.51
1.58	YES							
L0005050		0	0.22710E-05	649787.9	4291111.4	52.0	3.40	26.51

*** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23
 *** AERMET - VERSION 19191 *** ***
 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
SOURCE	EMISSION RATE				
SZ	SOURCE	PART. (GRAMS/SEC)	X	Y	SY
		SCALAR VARY			

ID (METERS)	CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
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L0005051	0	0.22710E-05	649743.9	4291075.2	51.8	3.40	26.51
1.58 YES							
L0005052	0	0.22710E-05	649699.8	4291039.1	51.6	3.40	26.51
1.58 YES							
L0005053	0	0.22710E-05	649655.7	4291002.9	51.4	3.40	26.51
1.58 YES							
L0005054	0	0.22710E-05	649611.7	4290966.8	51.1	3.40	26.51
1.58 YES							
L0005055	0	0.79500E-05	649551.8	4290913.5	50.8	3.40	36.74
1.58 YES							
L0005056	0	0.79500E-05	649490.4	4290863.8	50.5	3.40	36.74
1.58 YES							
L0005057	0	0.39750E-05	649426.2	4290799.7	50.2	3.40	23.26
1.58 YES							
L0005058	0	0.39750E-05	649387.6	4290767.9	50.1	3.40	23.26
1.58 YES							
L0005059	0	0.39750E-05	649349.1	4290736.1	49.9	3.40	23.26
1.58 YES							
L0005060	0	0.39750E-05	649310.5	4290704.3	49.8	3.40	23.26
1.58 YES							
L0005061	0	0.26500E-05	649148.7	4290768.0	49.3	3.40	11.63
1.58 YES							
L0005062	0	0.26500E-05	649170.0	4290754.9	49.4	3.40	11.63
1.58 YES							
L0005063	0	0.26500E-05	649191.3	4290741.9	49.4	3.40	11.63
1.58 YES							
L0005064	0	0.26500E-05	649212.7	4290728.9	49.5	3.40	11.63
1.58 YES							
L0005065	0	0.26500E-05	649234.0	4290715.8	49.5	3.40	11.63
1.58 YES							
L0005066	0	0.26500E-05	649255.3	4290702.8	49.5	3.40	11.63
1.58 YES							
VOL12	0	0.00000E+00	650665.3	4291406.9	53.2	1.30	11.63
1.21 YES							
VOL22	0	0.00000E+00	650564.0	4291398.4	53.2	1.30	20.23
1.21 YES							
VOL32	0	0.00000E+00	650456.4	4291399.5	53.9	1.30	15.12
1.21 YES							
L0005067	0	0.00000E+00	650353.1	4291409.6	54.2	1.30	40.47
0.60 YES							
L0005068	0	0.00000E+00	650268.8	4291389.3	54.5	1.30	40.47
0.60 YES							
L0005069	0	0.00000E+00	650186.2	4291361.9	54.5	1.30	40.47
0.60 YES							
L0005070	0	0.00000E+00	650105.1	4291330.6	54.8	1.30	40.47

ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	BY					

L0005088	0	0.000000E+00	649191.3	4290741.9	49.4	1.30	11.63
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L0005089	0	0.00000E+00	649212.7	4290728.9	49.5	1.30	11.63
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L0005090	0	0.00000E+00	649234.0	4290715.8	49.5	1.30	11.63
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L0005091	0	0.00000E+00	649255.3	4290702.8	49.5	1.30	11.63
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*** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

ALL L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 ,

L0004955	L0004950 , L0004956	, L0004951 , L0004957	, L0004952 ,	, L0004953	, L0004954	,
L0004963	L0004958 , L0004964	, L0004959 , L0004965	, L0004960 ,	, L0004961	, L0004962	,
L0004971	L0004966 , L0004972	, L0004967 , L0004973	, L0004968 ,	, L0004969	, L0004970	,
L0004979	L0004974 , L0004980	, L0004975 , L0004981	, L0004976 ,	, L0004977	, L0004978	,
L0004987	L0004982 , L0004988	, L0004983 , L0004989	, L0004984 ,	, L0004985	, L0004986	,
L0004995	L0004990 , L0004996	, L0004991 , L0004997	, L0004992 ,	, L0004993	, L0004994	,
L0005003	L0004998 , L0005004	, L0004999 , L0005005	, L0005000 ,	, L0005001	, L0005002	,
L0005011	L0005006 , L0005012	, L0005007 , L0005013	, L0005008 ,	, L0005009	, L0005010	,
L0005019	L0005014 , L0005020	, L0005015 , L0005021	, L0005016 ,	, L0005017	, L0005018	,
L0005027	L0005022 , L0005028	, L0005023 , L0005029	, L0005024 ,	, L0005025	, L0005026	,
L0005035	L0005030 , L0005036	, L0005031 , L0005037	, L0005032 ,	, L0005033	, L0005034	,
VOL2	L0005038 , VOL3	, L0005039 , L0005042	, L0005040 ,	, L0005041	, VOL1	,
L0005048	L0005043 , L0005049	, L0005044 , L0005050	, L0005045 ,	, L0005046	, L0005047	,

▲ *** AERMOD - VERSION 22112 *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

SOURCE IDs

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L0005056      L0005051      , L0005052      , L0005053      , L0005054      , L0005055      ,
               , L0005057      , L0005058      ,
L0005064      L0005059      , L0005060      , L0005061      , L0005062      , L0005063      ,
               , L0005065      , L0005066      ,
L0005069      VOL12        , VOL22        , VOL32        , L0005067      , L0005068      ,
               , L0005070      , L0005071      ,
L0005077      L0005072      , L0005073      , L0005074      , L0005075      , L0005076      ,
               , L0005078      , L0005079      ,
L0005085      L0005080      , L0005081      , L0005082      , L0005083      , L0005084      ,
               , L0005086      , L0005087      ,
               L0005088      , L0005089      , L0005090      , L0005091      ,
^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED                ***      07/18/23
*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES

URBAN ID

URBAN POP

SOURCE IDs

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L0000005      2500000.      L0000001      , L0000002      , L0000003      , L0000004      ,
L0000008      , L0000006      , L0000007      ,
               ,
L0000014      L0000009      , L0000010      , L0000011      , L0000012      , L0000013      ,
               , L0000015      , L0000016      ,
L0000022      L0000017      , L0000018      , L0000019      , L0000020      , L0000021      ,
               , L0000023      , L0000024      ,
L0000030      L0000025      , L0000026      , L0000027      , L0000028      , L0000029      ,
               , L0004925      , L0004926      ,
               L0004927      , L0004928      , L0004929      , L0004930      , L0004931      ,

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L0004932	, L0004933	, L0004934	,			
	L0004935	, L0004936	, L0004937	, L0004938	, L0004939	,
L0004940	, L0004941	, L0004942	,			
	VOL41	, L0004943	, L0004944	, L0004945	, L0004946	,
L0004947	, L0004948	, L0004949	,			
	L0004950	, L0004951	, L0004952	, L0004953	, L0004954	,
L0004955	, L0004956	, L0004957	,			
	L0004958	, L0004959	, L0004960	, L0004961	, L0004962	,
L0004963	, L0004964	, L0004965	,			
	L0004966	, L0004967	, L0004968	, L0004969	, L0004970	,
L0004971	, L0004972	, L0004973	,			
	L0004974	, L0004975	, L0004976	, L0004977	, L0004978	,
L0004979	, L0004980	, L0004981	,			
	L0004982	, L0004983	, L0004984	, L0004985	, L0004986	,
L0004987	, L0004988	, L0004989	,			
	L0004990	, L0004991	, L0004992	, L0004993	, L0004994	,
L0004995	, L0004996	, L0004997	,			
	L0004998	, L0004999	, L0005000	, L0005001	, L0005002	,
L0005003	, L0005004	, L0005005	,			
	L0005006	, L0005007	, L0005008	, L0005009	, L0005010	,
L0005011	, L0005012	, L0005013	,			
	L0005014	, L0005015	, L0005016	, L0005017	, L0005018	,
L0005019	, L0005020	, L0005021	,			
	L0005022	, L0005023	, L0005024	, L0005025	, L0005026	,
L0005027	, L0005028	, L0005029	,			
	L0005030	, L0005031	, L0005032	, L0005033	, L0005034	,
L0005035	, L0005036	, L0005037	,			
	L0005038	, L0005039	, L0005040	, L0005041	, VOL1	,
VOL2	, VOL3	, L0005042	,			
	L0005043	, L0005044	, L0005045	, L0005046	, L0005047	,
L0005048	, L0005049	, L0005050	,			

*** AERMOD - VERSION 22112 *** 3RD LEG LAYOVER CONSTRUCTION EMISSIONS -
 MITIGATED 07/18/23

*** AERMET - VERSION 19191 ***

*** 17:16:07

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP	SOURCE IDs
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L0005056	L0005051 , L0005052 , L0005053 , L0005054 , L0005055 , L0005057 , L0005058 ,	
L0005064	L0005059 , L0005060 , L0005061 , L0005062 , L0005063 , L0005065 , L0005066 ,	
L0005069	VOL12 , VOL22 , VOL32 , L0005067 , L0005068 , L0005070 , L0005071 ,	
L0005077	L0005072 , L0005073 , L0005074 , L0005075 , L0005076 , L0005078 , L0005079 ,	
L0005085	L0005080 , L0005081 , L0005082 , L0005083 , L0005084 , L0005086 , L0005087 ,	
	L0005088 , L0005089 , L0005090 , L0005091 ,	

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23
 *** AERMET - VERSION 19191 *** ***
 *** 17:16:07

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2,
 649826.2, 649838.2, 649850.2,
 649862.2,

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

4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0,
4291359.0, 4291376.0, 4291393.0,
4291410.0,

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	649742.20	649754.20	649766.20	649778.20	649790.20
649802.20	649814.20	649826.20	649838.20		

- - - - -

4291409.99	54.60	54.80	54.90	54.80	54.90
54.90	54.90	55.00	55.00		
4291392.99	54.70	54.80	54.80	54.80	54.80
54.80	54.90	54.90	55.00		
4291375.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		
4291358.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		
4291341.99	54.80	54.80	54.90	54.90	55.00
55.00	55.00	54.90	54.90		
4291324.99	54.80	54.90	55.20	55.40	55.40
55.30	55.20	55.00	54.90		
4291307.99	55.00	54.90	55.10	55.20	55.20
55.30	55.60	55.60	55.40		
4291290.99	56.10	56.20	56.50	56.80	56.70
57.00	56.80	56.10	55.50		
4291273.99	57.10	57.80	57.90	58.00	58.00
57.90	57.10	55.80	55.30		
4291256.99	57.70	58.00	57.90	58.00	58.00
58.00	57.00	55.60	55.00		
4291239.99	57.60	57.60	57.40	57.30	57.30
57.20	56.50	55.00	54.00		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***

17:16:07

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	649850.20	649862.20	
4291409.99	55.10	55.10	
4291392.99	55.10	55.20	
4291375.99	55.20	55.20	
4291358.99	55.10	55.20	
4291341.99	55.00	55.10	
4291324.99	54.90	54.80	
4291307.99	55.00	54.60	
4291290.99	55.10	54.60	
4291273.99	55.10	54.50	
4291256.99	54.90	54.20	
4291239.99	53.90	53.70	

*** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23
 *** AERMET - VERSION 19191 *** ***
 *** 17:16:07

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)					X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20	
649802.20	649814.20	649826.20	649838.20			
4291409.99	54.60	54.80	54.90	54.80	54.90	
54.90	54.90	55.00	55.00			
4291392.99	54.70	54.80	54.80	54.80	54.80	
54.80	54.90	54.90	55.00			
4291375.99	54.80	54.90	54.90	54.90	54.90	
54.90	54.90	54.90	55.00			
4291358.99	54.80	54.90	54.90	54.90	54.90	

54.90	54.90	54.90	55.00			
4291341.99 |	54.80	54.80	54.90	55.00	55.00	55.00
55.00	55.00	54.90	54.90			
4291324.99 |	54.80	54.90	55.20	55.40	55.40	55.40
55.30	55.20	55.00	54.90			
4291307.99 |	55.00	54.90	57.90	57.90	57.90	57.90
57.90	55.60	55.60	55.40			
4291290.99 |	56.10	57.50	57.90	57.90	57.90	57.90
57.90	56.80	56.10	55.50			
4291273.99 |	57.40	57.80	57.90	58.00	58.00	58.00
57.90	57.80	57.80	55.30			
4291256.99 |	57.70	58.00	57.90	58.00	58.00	58.00
58.00	57.00	57.80	55.00			
4291239.99 |	57.60	57.60	57.40	57.30	57.30	57.30
57.50	57.30	58.00	58.00			

*** AERMOD - VERSION 22112 ***
 MITIGATED
 *** AERMET - VERSION 19191 ***
 *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** MODELOPTs: RegDFault CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD			X-COORD (METERS)
(METERS)	649850.20	649862.20	

4291409.99 |	55.10	55.10
4291392.99 |	55.10	55.20
4291375.99 |	55.20	55.20
4291358.99 |	55.10	55.20
4291341.99 |	55.00	55.10
4291324.99 |	54.90	54.80
4291307.99 |	55.00	54.60
4291290.99 |	55.10	54.60
4291273.99 |	55.10	54.50
4291256.99 |	54.90	54.20
4291239.99 |	53.90	53.70

*** AERMOD - VERSION 22112 ***
 MITIGATED
 *** AERMET - VERSION 19191 ***
 *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 07/18/23
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS)					X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20	
649802.20	649814.20	649826.20	649838.20			

- - - - -

4291409.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291392.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291375.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291358.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291341.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291324.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291307.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291290.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291273.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291256.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		
4291239.99	|	1.80	1.80	1.80	1.80	1.80
1.80		1.80	1.80	1.80		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED *** 07/18/23
*** AERMET - VERSION 19191 *** ***
*** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	649850.20	649862.20	

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- - - - -
- - - - -
4291409.99 |      1.80      1.80
4291392.99 |      1.80      1.80
4291375.99 |      1.80      1.80
4291358.99 |      1.80      1.80
4291341.99 |      1.80      1.80
4291324.99 |      1.80      1.80
4291307.99 |      1.80      1.80
4291290.99 |      1.80      1.80
4291273.99 |      1.80      1.80
4291256.99 |      1.80      1.80
4291239.99 |      1.80      1.80

```

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***
 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

```

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( 650196.4, 4291262.6, 53.5, 53.5, 1.8); ( 650197.8,
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( 650199.8, 4291253.2, 53.6, 53.6, 1.8); ( 650202.0,
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( 650204.2, 4291242.5, 53.7, 53.7, 1.8); ( 650205.8,
4291236.7, 53.8, 53.8, 1.8);
( 650212.3, 4291238.7, 53.8, 53.8, 1.8); ( 650218.3,
4291240.5, 53.7, 53.7, 1.8);
( 650224.7, 4291242.5, 53.7, 53.7, 1.8); ( 650232.7,
4291245.3, 53.7, 53.7, 1.8);
( 650241.1, 4291248.3, 53.7, 53.7, 1.8); ( 650249.2,
4291250.9, 53.7, 53.7, 1.8);
( 650256.6, 4291253.7, 53.7, 53.7, 1.8); ( 650266.2,
4291257.1, 53.7, 53.7, 1.8);
( 650206.4, 4291276.2, 53.4, 53.4, 1.8); ( 650208.5,
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( 650210.1, 4291268.6, 53.5, 53.5, 1.8); ( 650212.3,
4291264.6, 53.6, 53.6, 1.8);
( 650235.3, 4291286.2, 53.6, 53.6, 1.8); ( 650236.7,
4291283.0, 53.6, 53.6, 1.8);
( 650238.2, 4291279.8, 53.6, 53.6, 1.8); ( 650239.2,
4291276.2, 53.6, 53.6, 1.8);

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4290624.3, 50.6, 50.6,	1.8);			
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4290701.2, 50.7, 50.7,	1.8);			
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4290620.7, 51.6, 51.6,	1.8);			
(649581.9, 4290816.0,	50.8,	50.8,	1.8);	(649595.6,
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4290855.8, 51.6, 51.6,	1.8);			

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^ *** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CNOSTRUCTION EMISSIONS -
MITIGATED ***      07/18/23
*** AERMET - VERSION 19191 ***      ***
***      17:16:07

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*** MODELOPTs:  RegDFault  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

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( 649316.0, 4290889.2, 50.6, 50.6, 0.0); ( 649296.2,
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^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED *** 07/18/23
*** AERMET - VERSION 19191 *** ***
*** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

DISTANCE	SOURCE	- - RECEPTOR LOCATION - -	
(METERS)	ID	XR (METERS)	YR (METERS)
- - -			
	L0000009	650194.2	4291271.5
-14.43	L0000009	650195.6	4291266.8
-10.33	L0000009	650196.4	4291262.6
-6.66	L0000009	650197.8	4291257.9
-2.04	L0000009	650206.4	4291276.2
-4.41	L0000009	650208.5	4291273.2
-1.78	L0000010	650194.2	4291271.5
-4.62	L0000010	650195.6	4291266.8
-1.77	L0000010	650206.4	4291276.2
-14.94	L0000010	650208.5	4291273.2
-12.30	L0000010	650210.1	4291268.6

-7.71	L0000010	650212.3	4291264.6
-3.53	L0000010	650235.3	4291286.2
-0.60	L0000011	650235.3	4291286.2
-17.61	L0000011	650236.7	4291283.0
-14.29	L0000011	650238.2	4291279.8
-10.85	L0000011	650239.2	4291276.2
-7.13	L0000011	650239.7	4291273.0
-3.93	L0000011	650256.4	4291292.0
-4.77	L0000011	650258.0	4291286.8
-1.93	L0000012	650256.4	4291292.0
-15.07	L0000012	650258.0	4291286.8
-10.41	L0000012	650260.0	4291279.8
-3.59	L0004979	649216.8	4290755.2
-5.15	L0004980	649247.5	4290740.0
-0.69	L0004981	649247.5	4290740.0
-7.14	L0005045	650053.1	4291363.7
-25.36	L0005045	650066.5	4291373.5
-29.29	L0005045	650079.0	4291366.4
-42.75	L0005046	650053.1	4291363.7
-10.32	L0005047	649907.3	4291317.2
-5.40	L0005047	649903.8	4291306.5
-11.94	L0005047	649917.2	4291272.5
-45.05	L0005047	649911.8	4291301.1
-21.14	L0005047	649924.3	4291302.9
-26.31	L0005070	650053.1	4291363.7

-25.36	L0005070	650066.5	4291373.5
-29.29	L0005070	650079.0	4291366.4
-42.75	L0005071	650053.1	4291363.7
-10.32	L0005072	649907.3	4291317.2
-5.40			

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***
 *** 17:16:07

PAGE 23

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

DISTANCE	SOURCE	- - RECEPTOR LOCATION - -	
(METERS)	ID	XR (METERS)	YR (METERS)
- - -	- - - - -	- - - - -	- - - - -

-11.94	L0005072	649903.8	4291306.5
-45.05	L0005072	649917.2	4291272.5
-21.14	L0005072	649911.8	4291301.1
-26.31	L0005072	649924.3	4291302.9

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***
 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

10.80, 1.54, 3.09, 5.14, 8.23,

*** MODELOPTs: RegDFault CONC ELEV FLGPOL URBAN ADJ_U*

Surface station no.:	93225	Upper air station no.:	23230
Name:	UNKNOWN	Name:	
OAKLAND/WSO_AP			
Year:	2014	Year:	2014

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN
ALBEDO		REF	WS	WD	HT	REF	TA	HT						
14	01	01	1	01	-15.5	0.166	-9.000	-9.000	-999.	162.	30.3	0.05	0.69	
1.00		2.36		211.	10.1	275.4	2.0							
14	01	01	1	02	-3.4	0.079	-9.000	-9.000	-999.	56.	13.1	0.06	0.69	
1.00		1.06		188.	10.1	273.8	2.0							
14	01	01	1	03	-12.2	0.146	-9.000	-9.000	-999.	134.	23.5	0.05	0.69	
1.00		2.10		136.	10.1	275.9	2.0							
14	01	01	1	04	-23.3	0.226	-9.000	-9.000	-999.	257.	56.0	0.05	0.69	
1.00		3.15		142.	10.1	277.0	2.0							
14	01	01	1	05	-16.2	0.171	-9.000	-9.000	-999.	170.	32.2	0.06	0.69	
1.00		2.33		186.	10.1	274.9	2.0							
14	01	01	1	06	-3.0	0.076	-9.000	-9.000	-999.	55.	12.9	0.06	0.69	
1.00		0.99		204.	10.1	273.1	2.0							
14	01	01	1	07	-4.8	0.092	-9.000	-9.000	-999.	67.	14.7	0.07	0.69	
1.00		1.28		171.	10.1	272.0	2.0							
14	01	01	1	08	-1.8	0.065	-9.000	-9.000	-999.	40.	14.3	0.06	0.69	
1.00		0.67		183.	10.1	273.1	2.0							
14	01	01	1	09	-0.3	0.062	-9.000	-9.000	-999.	37.	75.4	0.06	0.69	
0.41		0.82		181.	10.1	278.1	2.0							
14	01	01	1	10	36.6	0.151	0.431	0.020	80.	141.	-8.6	0.05	0.69	
0.28		1.55		141.	10.1	280.4	2.0							
14	01	01	1	11	65.9	0.162	0.666	0.019	163.	157.	-5.9	0.07	0.69	
0.24		1.48		161.	10.1	283.1	2.0							
14	01	01	1	12	82.5	0.174	0.784	0.017	212.	175.	-5.8	0.07	0.69	
0.22		1.59		152.	10.1	285.9	2.0							
14	01	01	1	13	86.0	0.219	0.835	0.015	246.	246.	-11.1	0.07	0.69	
0.22		2.18		154.	10.1	288.1	2.0							
14	01	01	1	14	74.8	0.234	0.838	0.014	286.	272.	-15.6	0.05	0.69	
0.23		2.56		229.	10.1	288.1	2.0							
14	01	01	1	15	42.8	0.198	0.714	0.013	308.	212.	-16.5	0.06	0.69	
0.26		2.08		180.	10.1	288.8	2.0							
14	01	01	1	16	15.1	0.151	0.507	0.013	315.	141.	-20.7	0.06	0.69	
0.35		1.62		194.	10.1	288.1	2.0							
14	01	01	1	17	-9.6	0.137	-9.000	-9.000	-999.	122.	24.4	0.05	0.69	
0.61		1.96		223.	10.1	286.4	2.0							
14	01	01	1	18	-1.5	0.061	-9.000	-9.000	-999.	38.	13.6	0.04	0.69	
1.00		0.65		251.	10.1	283.8	2.0							
14	01	01	1	19	-1.5	0.058	-9.000	-9.000	-999.	34.	12.1	0.02	0.6	

		** CONC OF DPM			IN MICROGRAMS/M**3	
Y-COORD (METERS)					X-COORD (METERS)	
649802.20	649814.20	649742.20	649754.20	649766.20	649778.20	649790.20

4291409.99		0.00052	0.00054	0.00056	0.00058	0.00060
0.00063	0.00065	0.00068	0.00071			
4291392.99		0.00054	0.00056	0.00058	0.00060	0.00063
0.00065	0.00068	0.00071	0.00075			
4291375.99		0.00056	0.00058	0.00060	0.00062	0.00065
0.00068	0.00071	0.00075	0.00079			
4291358.99		0.00058	0.00060	0.00062	0.00065	0.00068
0.00071	0.00075	0.00079	0.00083			

4291341.99	|	0.00060	0.00063	0.00065	0.00068	0.00071
0.00074		0.00078	0.00083	0.00088		
4291324.99	|	0.00063	0.00065	0.00068	0.00071	0.00074
0.00077		0.00082	0.00087	0.00093		
4291307.99	|	0.00066	0.00068	0.00071	0.00074	0.00078
0.00081		0.00086	0.00091	0.00097		
4291290.99	|	0.00069	0.00071	0.00073	0.00076	0.00080
0.00083		0.00088	0.00096	0.00103		
4291273.99	|	0.00071	0.00072	0.00075	0.00078	0.00082
0.00086		0.00093	0.00103	0.00111		
4291256.99	|	0.00073	0.00076	0.00079	0.00083	0.00087
0.00091		0.00100	0.00112	0.00122		
4291239.99	|	0.00078	0.00081	0.00086	0.00090	0.00095
0.00101		0.00110	0.00125	0.00139		

*** AERMOD - VERSION 22112 ***
 MITIGATED
 *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 07/18/23

*** AERMET - VERSION 19191 ***
 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

**

Y-COORD (METERS)	X-COORD (METERS)
649850.20	649862.20

4291409.99	|	0.00074	0.00077
4291392.99	|	0.00078	0.00082
4291375.99	|	0.00083	0.00088
4291358.99	|	0.00088	0.00094
4291341.99	|	0.00094	0.00100
4291324.99	|	0.00099	0.00107


```

*** AERMOD - VERSION 22112 ***    *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED                        ***    07/18/23
*** AERMET - VERSION 19191 ***    ***
***                                ***    17:16:07

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*** MODELOPTs:  RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*
```

VALUES FOR SOURCE GROUP: ALL		*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION ***	
		INCLUDING SOURCE(S):	L0000001 , L0000002
, L0000003	, L0000004	, L0000005	, L0000006
	L0000006	, L0000007	, L0000008 , L0000009 , L0000010
, L0000011	, L0000012	, L0000013	, L0000014
	L0000014	, L0000015	, L0000016 , L0000017 , L0000018
, L0000019	, L0000020	, L0000021	, L0000022
	L0000022	, L0000023	, L0000024 , L0000025 , L0000026
, L0000027	, L0000028	, . . .	, . . .

*** DISCRETE CARTESIAN RECEPTOR POINTS

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

**

	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
	Y-COORD (M)	CONC		
	650194.23	4291271.45	0.00109	650195.61
4291266.76	0.00105			
	650196.44	4291262.63	0.00116	650197.82
4291257.94	0.00111			
	650199.75	4291253.25	0.00122	650201.96
4291248.01	0.00114			
	650204.16	4291242.49	0.00107	650205.82
4291236.70	0.00101			
	650212.33	4291238.72	0.00101	650218.31
4291240.52	0.00100			
	650224.69	4291242.51	0.00100	650232.67
4291245.31	0.00101			
	650241.05	4291248.30	0.00101	650249.22
4291250.89	0.00102			
	650256.60	4291253.68	0.00102	650266.17
4291257.07	0.00103			

650206.35	4291276.22	0.00108	650208.54
4291273.23	0.00106		
650210.14	4291268.64	0.00118	650212.33
4291264.65	0.00113		
650235.26	4291286.19	0.00110	650236.66
4291283.00	0.00122		
650238.25	4291279.81	0.00119	650239.25
4291276.22	0.00115		
650239.65	4291273.03	0.00112	650256.40
4291291.97	0.00109		
650258.00	4291286.79	0.00106	650259.99
4291279.81	0.00115		
650260.59	4291272.43	0.00122	650263.78
4291266.05	0.00113		
649381.16	4290586.76	0.00074	649394.57
4290600.17	0.00078		
649410.67	4290612.69	0.00080	649425.86
4290624.31	0.00080		
649417.82	4290633.25	0.00088	649410.67
4290643.08	0.00097		
649391.89	4290566.20	0.00063	649400.83
4290559.05	0.00060		
649406.20	4290552.79	0.00057	649414.24
4290537.59	0.00052		
649435.70	4290606.43	0.00070	649444.64
4290599.28	0.00066		
649449.11	4290591.23	0.00062	649458.05
4290584.08	0.00059		
649458.05	4290643.98	0.00078	649468.77
4290628.78	0.00069		
649481.29	4290618.95	0.00063	649497.38
4290607.32	0.00057		
649452.68	4290733.37	0.00151	649462.52
4290744.99	0.00153		
649473.24	4290753.04	0.00148	649487.55
4290761.98	0.00141		
649458.94	4290719.07	0.00127	649482.18
4290692.25	0.00091		
649496.49	4290676.16	0.00078	649494.70
4290750.36	0.00122		
649510.79	4290725.33	0.00095	649531.35
4290701.19	0.00076		
649512.58	4290658.28	0.00067	649505.43
4290620.73	0.00059		
649581.89	4290816.00	0.00126	649595.63
4290822.01	0.00119		
649605.89	4290832.53	0.00118	649616.82
4290841.57	0.00114		
649599.29	4290800.42	0.00100	649604.66
4290787.90	0.00090		

649623.43	4290818.30	0.00095	649627.90
4290802.21	0.00085		
649634.60	4290882.58	0.00122	649644.44
4290891.53	0.00116		
649657.85	4290903.15	0.00109	649662.32
4290845.92	0.00081		
649670.37	4290910.31	0.00102	649672.16
4290855.76	0.00079		
649681.10	4290918.35	0.00098	649690.04
4290926.40	0.00096		
649703.46	4290939.81	0.00096	649686.47
4290867.38	0.00075		
649698.09	4290813.73	0.00060	649718.66
4290834.29	0.00058		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***
 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** DISCRETE CARTESIAN RECEPTOR POINTS

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

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
649741.01	4290850.39	0.00055	649763.37
4290863.80	0.00053		
649701.67	4290877.22	0.00072	649715.08
4290890.63	0.00071		
649732.07	4290904.94	0.00069	649910.92
4290991.68	0.00058		
649928.80	4291003.31	0.00060	649945.79

4291014.04	0.00062		
649962.79	4291022.98	0.00064	650053.10
4291107.93	0.00109		
650064.73	4291089.15	0.00091	650085.30
4291104.35	0.00085		
650070.09	4291118.66	0.00101	650083.51
4291131.18	0.00096		
650146.10	4291166.06	0.00079	650157.73
4291151.75	0.00071		
650140.74	4291144.59	0.00074	650115.70
4291125.82	0.00077		
650113.91	4291149.07	0.00084	650178.30
4291183.94	0.00077		
650190.82	4291167.85	0.00070	650434.94
4291167.85	0.00064		
650417.06	4291189.31	0.00069	650401.86
4291217.03	0.00078		
650207.81	4291177.68	0.00070	650225.69
4291183.05	0.00069		
650240.89	4291188.41	0.00070	650258.78
4291195.57	0.00070		
650280.24	4291200.93	0.00071	650293.65
4291207.19	0.00072		
650315.11	4291215.24	0.00075	650333.89
4291220.60	0.00077		
650352.67	4291225.08	0.00079	650374.13
4291231.34	0.00083		
650013.76	4291462.05	0.00081	649930.59
4291369.05	0.00120		
649914.50	4291349.37	0.00130	649935.06
4291335.96	0.00161		
649907.34	4291317.18	0.00125	649919.86
4291361.00	0.00122		
649909.13	4291335.07	0.00141	649903.77
4291306.45	0.00130		
649917.18	4291272.47	0.00179	649911.81
4291301.09	0.00143		
649924.33	4291302.87	0.00156	650053.10
4291363.68	0.00074		
650066.52	4291373.52	0.00096	650079.04
4291366.37	0.00097		
649216.78	4290755.24	0.00542	649667.26
4291204.25	0.00075		
649647.43	4291189.03	0.00075	649627.60
4291173.81	0.00077		
649607.77	4291158.59	0.00078	649587.93
4291143.37	0.00082		
649568.10	4291128.14	0.00085	649548.27
4291112.92	0.00088		
649528.43	4291097.70	0.00092	649508.60

	649285.25	4290815.27	0.00174	649305.10
4290830.48	0.00167			
	649324.94	4290845.68	0.00165	649344.78
4290860.89	0.00164			
	649364.63	4290876.10	0.00164	649384.47
4290891.31	0.00165			
	649404.31	4290906.51	0.00170	649424.16
4290921.72	0.00183			
	649444.00	4290936.93	0.00196	649463.84
4290952.13	0.00204			
	649483.69	4290967.34	0.00208	649503.53
4290982.55	0.00205			
	649523.37	4290997.75	0.00191	649543.21
4291012.96	0.00172			
	649563.06	4291028.17	0.00156	649582.90
4291043.37	0.00145			
	649602.74	4291058.58	0.00139	649622.59
4291073.79	0.00134			
	649642.43	4291088.99	0.00131	649662.27
4291104.20	0.00129			
	649682.12	4291119.41	0.00129	649701.96
4291134.62	0.00130			
	649673.19	4291162.96	0.00093	649653.34
4291147.75	0.00094			
	649633.50	4291132.55	0.00096	649613.66
4291117.34	0.00098			
	649593.81	4291102.13	0.00101	649573.97
4291086.92	0.00106			
	649554.13	4291071.72	0.00112	649534.28
4291056.51	0.00119			
	649514.44	4291041.30	0.00128	649494.60
4291026.10	0.00135			
	649474.75	4291010.89	0.00138	649454.91
4290995.68	0.00138			
	649435.07	4290980.48	0.00135	649415.22
4290965.27	0.00131			
	649395.38	4290950.06	0.00127	649375.54
4290934.86	0.00123			
	649355.70	4290919.65	0.00122	649335.85
4290904.44	0.00122			
	649316.01	4290889.24	0.00123	649296.17
4290874.03	0.00125			
	649276.32	4290858.82	0.00131	649256.48
4290843.61	0.00142			
	649236.64	4290828.41	0.00166	649216.79
4290813.20	0.00212			
	649185.13	4290793.92	0.00341	649699.43
4291179.00	0.00090			

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*** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CONSTRUCTION EMISSIONS -
MITIGATED                          ***      07/18/23
*** AERMET - VERSION 19191 ***      ***
***                                ***
***                                17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

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*** THE SUMMARY OF MAXIMUM PERIOD ( 43680
HRS) RESULTS ***

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

GROUP ID		NETWORK	AVERAGE CONC		RECEPTOR	(XR, YR,
ZELEV,	ZHILL, ZFLAG)	OF TYPE	GRID-ID			
ALL	1ST HIGHEST VALUE IS		0.00542 AT (	649216.78,	4290755.24,	
49.77,	49.77, 0.00) DC					
	2ND HIGHEST VALUE IS		0.00472 AT (	649247.52,	4290740.02,	
49.72,	49.72, 0.00) DC					
	3RD HIGHEST VALUE IS		0.00372 AT (	649225.72,	4290769.65,	
49.99,	49.99, 0.00) DC					
	4TH HIGHEST VALUE IS		0.00341 AT (	649185.13,	4290793.92,	
50.69,	50.69, 1.80) DC					
	5TH HIGHEST VALUE IS		0.00256 AT (	649158.28,	4290816.10,	
51.08,	51.08, 1.80) DC					
	6TH HIGHEST VALUE IS		0.00246 AT (	649245.57,	4290784.86,	
50.06,	50.06, 0.00) DC					
	7TH HIGHEST VALUE IS		0.00212 AT (	649216.79,	4290813.20,	
51.60,	51.60, 0.00) DC					
	8TH HIGHEST VALUE IS		0.00210 AT (	649182.11,	4290828.09,	
51.49,	51.49, 0.00) DC					
	9TH HIGHEST VALUE IS		0.00208 AT (	649483.69,	4290967.34,	
51.16,	51.16, 0.00) DC					
	10TH HIGHEST VALUE IS		0.00205 AT (	649503.53,	4290982.55,	
51.21,	51.21, 0.00) DC					

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

*** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CONSTRUCTION EMISSIONS -
MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 ***
*** 17:16:07

PAGE 32
*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

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

***** WARNING MESSAGES *****
SO W320 690 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 691 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 692 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 694 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 695 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 696 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 697 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 698 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 699 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 702 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 703 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 704 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS

SO W320	705	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	706	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	707	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	708	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	711	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	712	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	715	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	716	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	717	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	718	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	721	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	722	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	723	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	724	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	725	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	726	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
ME W186	752	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50		
ME W187	752	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

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

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**
*****
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/10/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
CONSTRUCT\AERMOD LAYOVER CONSTRUCT.ADI
**
*****
**
**
*****
** AERMOD CONTROL PATHWAY
*****
**
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - UNMITIGATED
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACRAMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER CONSTRUCT.ERR"
CO FINISHED
**
*****
** AERMOD SOURCE PATHWAY
*****
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE21
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000273
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 9
** 649987.745, 4291180.599, 52.57, 3.40, 12.39

```

** 650122.346, 4291253.260, 53.13, 3.40, 12.39
 ** 650180.713, 4291277.083, 53.34, 3.40, 12.39
 ** 650202.154, 4291285.421, 53.39, 3.40, 12.39
 ** 650285.535, 4291310.436, 53.65, 3.40, 12.39
 ** 650386.784, 4291334.259, 52.10, 3.40, 12.39
 ** 650471.356, 4291343.788, 49.96, 3.40, 12.39
 ** 650496.370, 4291355.700, 49.90, 3.40, 12.39
 ** 650745.323, 4291364.038, 52.75, 3.40, 12.39

** -----
 LOCATION L0000001 VOLUME 649993.606 4291183.763 52.59
 LOCATION L0000002 VOLUME 650017.048 4291196.418 52.69
 LOCATION L0000003 VOLUME 650040.490 4291209.072 52.79
 LOCATION L0000004 VOLUME 650063.933 4291221.727 52.89
 LOCATION L0000005 VOLUME 650087.375 4291234.382 52.98
 LOCATION L0000006 VOLUME 650110.818 4291247.037 53.08
 LOCATION L0000007 VOLUME 650134.881 4291258.376 53.18
 LOCATION L0000008 VOLUME 650159.546 4291268.443 53.26
 LOCATION L0000009 VOLUME 650184.234 4291278.452 53.35
 LOCATION L0000010 VOLUME 650209.254 4291287.551 53.41
 LOCATION L0000011 VOLUME 650234.770 4291295.206 53.49
 LOCATION L0000012 VOLUME 650260.287 4291302.861 53.57
 LOCATION L0000013 VOLUME 650285.807 4291310.500 53.65
 LOCATION L0000014 VOLUME 650311.739 4291316.601 53.25
 LOCATION L0000015 VOLUME 650337.671 4291322.703 52.85
 LOCATION L0000016 VOLUME 650363.603 4291328.805 52.45
 LOCATION L0000017 VOLUME 650389.592 4291334.575 52.03
 LOCATION L0000018 VOLUME 650416.065 4291337.558 51.36
 LOCATION L0000019 VOLUME 650442.537 4291340.541 50.69
 LOCATION L0000020 VOLUME 650469.010 4291343.524 50.02
 LOCATION L0000021 VOLUME 650493.276 4291354.226 49.91
 LOCATION L0000022 VOLUME 650519.570 4291356.477 50.17
 LOCATION L0000023 VOLUME 650546.195 4291357.368 50.47
 LOCATION L0000024 VOLUME 650572.821 4291358.260 50.78
 LOCATION L0000025 VOLUME 650599.446 4291359.152 51.08
 LOCATION L0000026 VOLUME 650626.071 4291360.044 51.38
 LOCATION L0000027 VOLUME 650652.696 4291360.935 51.69
 LOCATION L0000028 VOLUME 650679.321 4291361.827 51.99
 LOCATION L0000029 VOLUME 650705.946 4291362.719 52.30
 LOCATION L0000030 VOLUME 650732.571 4291363.611 52.60

** END OF LINE VOLUME SOURCE ID = SLINE21

** -----
 ** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
 ** LINE VOLUME SOURCE ID = SLINE31
 ** DESCRSRC HAUL TRUCK ROUTE
 ** PREFIX
 ** LENGTH OF SIDE = 13.32
 ** CONFIGURATION = SEPARATED 2W
 ** EMISSION RATE = 0.0000273
 ** ELEVATED
 ** VERTICAL DIMENSION = 6.80

```

** SZINIT = 1.58
** NODES = 12
** 650749.382, 4291365.900, 52.80, 3.40, 12.39
** 650769.869, 4291354.193, 53.32, 3.40, 12.39
** 650791.088, 4291354.193, 54.12, 3.40, 12.39
** 650851.817, 4291356.389, 57.08, 3.40, 12.39
** 650904.497, 4291360.779, 59.63, 3.40, 12.39
** 650969.616, 4291360.047, 61.96, 3.40, 12.39
** 651015.712, 4291355.657, 55.86, 3.40, 12.39
** 651047.905, 4291351.267, 55.97, 3.40, 12.39
** 651094.001, 4291343.950, 62.58, 3.40, 12.39
** 651145.218, 4291327.122, 60.86, 3.40, 12.39
** 651181.801, 4291313.220, 59.05, 3.40, 12.39
** 651213.995, 4291296.391, 56.93, 3.40, 12.39
** -----
LOCATION L0004728      VOLUME  650755.165 4291362.596 52.95
LOCATION L0004729      VOLUME  650779.573 4291354.193 53.69
LOCATION L0004730      VOLUME  650806.203 4291354.740 54.86
LOCATION L0004731      VOLUME  650832.826 4291355.702 56.15
LOCATION L0004732      VOLUME  650859.427 4291357.023 57.45
LOCATION L0004733      VOLUME  650885.975 4291359.235 58.73
LOCATION L0004734      VOLUME  650912.551 4291360.688 59.92
LOCATION L0004735      VOLUME  650939.189 4291360.389 60.87
LOCATION L0004736      VOLUME  650965.827 4291360.089 61.82
LOCATION L0004737      VOLUME  650992.364 4291357.880 58.95
LOCATION L0004738      VOLUME  651018.869 4291355.226 55.87
LOCATION L0004739      VOLUME  651045.265 4291351.627 55.96
LOCATION L0004740      VOLUME  651071.584 4291347.508 59.37
LOCATION L0004741      VOLUME  651097.746 4291342.719 62.45
LOCATION L0004742      VOLUME  651123.055 4291334.404 61.60
LOCATION L0004743      VOLUME  651148.314 4291325.945 60.71
LOCATION L0004744      VOLUME  651173.216 4291316.482 59.47
LOCATION L0004745      VOLUME  651197.271 4291305.133 58.03
** END OF LINE VOLUME SOURCE ID = SLINE31
LOCATION VOL41         VOLUME  649972.110 4291194.820      53.080
** DESCRSRC HAUL TRUCK ROUTE
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE51
** DESCRSRC MOVING TRAIN BALLAST DELIVERY
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 3.28E-07
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 12
** 648625.012, 4291380.197, 48.69, 5.65, 11.16
** 649080.310, 4290820.972, 49.74, 5.65, 11.16

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** 649175.989, 4290754.987, 49.69, 5.65, 11.16
 ** 649235.376, 4290725.293, 49.89, 5.65, 11.16
 ** 649281.565, 4290718.695, 49.68, 5.65, 11.16
 ** 649336.003, 4290731.892, 49.81, 5.65, 11.16
 ** 649395.390, 4290774.782, 50.00, 5.65, 11.16
 ** 649664.280, 4290984.286, 51.65, 5.65, 11.16
 ** 649962.864, 4291218.533, 53.58, 5.65, 11.16
 ** 650101.433, 4291291.117, 53.69, 5.65, 11.16
 ** 650320.834, 4291368.650, 53.75, 5.65, 11.16
 ** 650498.994, 4291401.643, 53.85, 5.65, 11.16

** -----

LOCATION L0004746	VOLUME	648628.800	4291375.544	48.70
LOCATION L0004747	VOLUME	648643.953	4291356.933	48.73
LOCATION L0004748	VOLUME	648659.106	4291338.321	48.77
LOCATION L0004749	VOLUME	648674.258	4291319.710	48.80
LOCATION L0004750	VOLUME	648689.411	4291301.098	48.84
LOCATION L0004751	VOLUME	648704.564	4291282.486	48.87
LOCATION L0004752	VOLUME	648719.717	4291263.875	48.91
LOCATION L0004753	VOLUME	648734.870	4291245.263	48.94
LOCATION L0004754	VOLUME	648750.022	4291226.652	48.98
LOCATION L0004755	VOLUME	648765.175	4291208.040	49.01
LOCATION L0004756	VOLUME	648780.328	4291189.428	49.05
LOCATION L0004757	VOLUME	648795.481	4291170.817	49.08
LOCATION L0004758	VOLUME	648810.634	4291152.205	49.12
LOCATION L0004759	VOLUME	648825.787	4291133.593	49.15
LOCATION L0004760	VOLUME	648840.939	4291114.982	49.19
LOCATION L0004761	VOLUME	648856.092	4291096.370	49.22
LOCATION L0004762	VOLUME	648871.245	4291077.759	49.26
LOCATION L0004763	VOLUME	648886.398	4291059.147	49.29
LOCATION L0004764	VOLUME	648901.551	4291040.535	49.33
LOCATION L0004765	VOLUME	648916.703	4291021.924	49.36
LOCATION L0004766	VOLUME	648931.856	4291003.312	49.40
LOCATION L0004767	VOLUME	648947.009	4290984.701	49.43
LOCATION L0004768	VOLUME	648962.162	4290966.089	49.47
LOCATION L0004769	VOLUME	648977.315	4290947.477	49.50
LOCATION L0004770	VOLUME	648992.468	4290928.866	49.54
LOCATION L0004771	VOLUME	649007.620	4290910.254	49.57
LOCATION L0004772	VOLUME	649022.773	4290891.643	49.61
LOCATION L0004773	VOLUME	649037.926	4290873.031	49.64
LOCATION L0004774	VOLUME	649053.079	4290854.419	49.68
LOCATION L0004775	VOLUME	649068.232	4290835.808	49.71
LOCATION L0004776	VOLUME	649084.319	4290818.208	49.74
LOCATION L0004777	VOLUME	649104.076	4290804.582	49.73
LOCATION L0004778	VOLUME	649123.833	4290790.956	49.72
LOCATION L0004779	VOLUME	649143.590	4290777.331	49.71
LOCATION L0004780	VOLUME	649163.347	4290763.705	49.70
LOCATION L0004781	VOLUME	649183.720	4290751.121	49.72
LOCATION L0004782	VOLUME	649205.186	4290740.388	49.79
LOCATION L0004783	VOLUME	649226.652	4290729.655	49.86
LOCATION L0004784	VOLUME	649249.479	4290723.278	49.83

LOCATION	L0004785	VOLUME	649273.238	4290719.884	49.72
LOCATION	L0004786	VOLUME	649296.715	4290722.367	49.72
LOCATION	L0004787	VOLUME	649320.039	4290728.022	49.77
LOCATION	L0004788	VOLUME	649342.143	4290736.326	49.83
LOCATION	L0004789	VOLUME	649361.599	4290750.378	49.89
LOCATION	L0004790	VOLUME	649381.055	4290764.429	49.95
LOCATION	L0004791	VOLUME	649400.374	4290778.665	50.03
LOCATION	L0004792	VOLUME	649419.306	4290793.416	50.15
LOCATION	L0004793	VOLUME	649438.238	4290808.166	50.26
LOCATION	L0004794	VOLUME	649457.170	4290822.917	50.38
LOCATION	L0004795	VOLUME	649476.101	4290837.668	50.50
LOCATION	L0004796	VOLUME	649495.033	4290852.418	50.61
LOCATION	L0004797	VOLUME	649513.965	4290867.169	50.73
LOCATION	L0004798	VOLUME	649532.897	4290881.920	50.84
LOCATION	L0004799	VOLUME	649551.829	4290896.670	50.96
LOCATION	L0004800	VOLUME	649570.761	4290911.421	51.08
LOCATION	L0004801	VOLUME	649589.693	4290926.172	51.19
LOCATION	L0004802	VOLUME	649608.625	4290940.922	51.31
LOCATION	L0004803	VOLUME	649627.557	4290955.673	51.42
LOCATION	L0004804	VOLUME	649646.489	4290970.424	51.54
LOCATION	L0004805	VOLUME	649665.418	4290985.178	51.66
LOCATION	L0004806	VOLUME	649684.300	4290999.992	51.78
LOCATION	L0004807	VOLUME	649703.183	4291014.806	51.90
LOCATION	L0004808	VOLUME	649722.065	4291029.620	52.02
LOCATION	L0004809	VOLUME	649740.948	4291044.434	52.15
LOCATION	L0004810	VOLUME	649759.830	4291059.248	52.27
LOCATION	L0004811	VOLUME	649778.713	4291074.061	52.39
LOCATION	L0004812	VOLUME	649797.595	4291088.875	52.51
LOCATION	L0004813	VOLUME	649816.478	4291103.689	52.63
LOCATION	L0004814	VOLUME	649835.360	4291118.503	52.76
LOCATION	L0004815	VOLUME	649854.243	4291133.317	52.88
LOCATION	L0004816	VOLUME	649873.125	4291148.131	53.00
LOCATION	L0004817	VOLUME	649892.008	4291162.945	53.12
LOCATION	L0004818	VOLUME	649910.890	4291177.759	53.24
LOCATION	L0004819	VOLUME	649929.773	4291192.573	53.37
LOCATION	L0004820	VOLUME	649948.655	4291207.386	53.49
LOCATION	L0004821	VOLUME	649968.126	4291221.290	53.58
LOCATION	L0004822	VOLUME	649989.386	4291232.426	53.60
LOCATION	L0004823	VOLUME	650010.646	4291243.562	53.62
LOCATION	L0004824	VOLUME	650031.906	4291254.699	53.63
LOCATION	L0004825	VOLUME	650053.166	4291265.835	53.65
LOCATION	L0004826	VOLUME	650074.426	4291276.971	53.67
LOCATION	L0004827	VOLUME	650095.686	4291288.107	53.69
LOCATION	L0004828	VOLUME	650117.945	4291296.952	53.69
LOCATION	L0004829	VOLUME	650140.573	4291304.949	53.70
LOCATION	L0004830	VOLUME	650163.202	4291312.945	53.71
LOCATION	L0004831	VOLUME	650185.831	4291320.942	53.71
LOCATION	L0004832	VOLUME	650208.459	4291328.939	53.72
LOCATION	L0004833	VOLUME	650231.088	4291336.935	53.73
LOCATION	L0004834	VOLUME	650253.716	4291344.932	53.73

LOCATION L0004835	VOLUME	650276.345	4291352.928	53.74
LOCATION L0004836	VOLUME	650298.974	4291360.925	53.74
LOCATION L0004837	VOLUME	650321.635	4291368.798	53.75
LOCATION L0004838	VOLUME	650345.234	4291373.168	53.76
LOCATION L0004839	VOLUME	650368.833	4291377.539	53.78
LOCATION L0004840	VOLUME	650392.432	4291381.909	53.79
LOCATION L0004841	VOLUME	650416.030	4291386.279	53.80
LOCATION L0004842	VOLUME	650439.629	4291390.649	53.82
LOCATION L0004843	VOLUME	650463.228	4291395.019	53.83
LOCATION L0004844	VOLUME	650486.827	4291399.389	53.84
** END OF LINE VOLUME SOURCE ID = SLINE51				
LOCATION VOL1	VOLUME	650665.251	4291406.930	53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION EQUIPMENT TRUCKS				
LOCATION VOL2	VOLUME	650563.968	4291398.425	53.160
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST WORK AREA #2				
LOCATION VOL3	VOLUME	650456.370	4291399.520	53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION EQUIPMENT EXHAUST				
** -----				
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES				
** LINE VOLUME SOURCE ID = SLINE43				
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3				
** PREFIX				
** LENGTH OF SIDE = 87.00				
** CONFIGURATION = ADJACENT				
** EMISSION RATE = 0.0000375				
** ELEVATED				
** VERTICAL DIMENSION = 6.80				
** SZINIT = 1.58				
** NODES = 8				
** 650396.283, 4291415.230, 53.09, 3.40, 40.47				
** 650339.492, 4291407.868, 54.51, 3.40, 40.47				
** 650291.115, 4291397.351, 54.58, 3.40, 40.47				
** 650226.962, 4291374.214, 54.26, 3.40, 40.47				
** 650171.223, 4291357.387, 54.56, 3.40, 40.47				
** 650088.140, 4291323.733, 54.83, 3.40, 40.47				
** 649981.921, 4291266.943, 52.81, 3.40, 40.47				
** 649931.440, 4291236.444, 52.99, 3.40, 40.47				
** -----				
LOCATION L0004845	VOLUME	650353.144	4291409.638	54.17
LOCATION L0004846	VOLUME	650268.796	4291389.301	54.47
LOCATION L0004847	VOLUME	650186.248	4291361.923	54.48
LOCATION L0004848	VOLUME	650105.134	4291330.617	54.77
LOCATION L0004849	VOLUME	650027.586	4291291.358	53.68
LOCATION L0004850	VOLUME	649951.778	4291248.731	52.92
** END OF LINE VOLUME SOURCE ID = SLINE43				
** -----				
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES				
** LINE VOLUME SOURCE ID = SLINE44				
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3				
** PREFIX				

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** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 3
** 649898.118, 4291201.738, 52.60, 3.40, 26.51
** 649581.371, 4290941.907, 50.98, 3.40, 26.51
** 649582.608, 4290945.618, 50.95, 3.40, 26.51
** -----
LOCATION L0004851      VOLUME    649876.084 4291183.663 52.49
LOCATION L0004852      VOLUME    649832.014 4291147.512 52.26
LOCATION L0004853      VOLUME    649787.945 4291111.362 52.04
LOCATION L0004854      VOLUME    649743.875 4291075.211 51.81
LOCATION L0004855      VOLUME    649699.806 4291039.060 51.59
LOCATION L0004856      VOLUME    649655.736 4291002.909 51.36
LOCATION L0004857      VOLUME    649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE44
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE45
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649582.567, 4290938.264, 50.99, 3.40, 36.74
** 649458.557, 4290838.151, 50.39, 3.40, 36.74
** -----
LOCATION L0004858      VOLUME    649551.832 4290913.452 50.84
LOCATION L0004859      VOLUME    649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE45
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE46
** DESCRSRC CONSTRUCITON EQUIPMENT EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649445.530, 4290815.617, 50.23, 3.40, 23.26

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** 649303.390, 4290698.508, 49.82, 3.40, 23.26
** -----
LOCATION L0004860      VOLUME  649426.235 4290799.720 50.17
LOCATION L0004861      VOLUME  649387.646 4290767.926 50.06
LOCATION L0004862      VOLUME  649349.056 4290736.133 49.95
LOCATION L0004863      VOLUME  649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE46
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE47
** DESCRSRC CONSTRUCTION EQUIPMENT TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649138.007, 4290774.495, 49.32, 3.40, 11.63
** 649266.737, 4290695.826, 49.56, 3.40, 11.63
** -----
LOCATION L0004864      VOLUME  649148.673 4290767.977 49.34
LOCATION L0004865      VOLUME  649170.005 4290754.941 49.38
LOCATION L0004866      VOLUME  649191.337 4290741.904 49.42
LOCATION L0004867      VOLUME  649212.669 4290728.868 49.46
LOCATION L0004868      VOLUME  649234.001 4290715.832 49.50
LOCATION L0004869      VOLUME  649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE47
LOCATION VOL12         VOLUME    650665.251 4291406.930      53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION PICKUP TRUCKS
LOCATION VOL22         VOLUME    650563.968 4291398.425      53.160
** DESCRSRC CONSTRUCTION EQUIPMENT PICKUP EXHAUST WORK AREA #2
LOCATION VOL32         VOLUME    650456.370 4291399.520      53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION PICKUP TRUCK EXHAUST
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE432
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 8
** 650396.283, 4291415.230, 53.09, 1.30, 40.47
** 650339.492, 4291407.868, 54.51, 1.30, 40.47
** 650291.115, 4291397.351, 54.58, 1.30, 40.47

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** 650226.962, 4291374.214, 54.26, 1.30, 40.47
** 650171.223, 4291357.387, 54.56, 1.30, 40.47
** 650088.140, 4291323.733, 54.83, 1.30, 40.47
** 649981.921, 4291266.943, 52.81, 1.30, 40.47
** 649931.440, 4291236.444, 52.99, 1.30, 40.47
** -----
LOCATION L0004870      VOLUME  650353.144 4291409.638 54.17
LOCATION L0004871      VOLUME  650268.796 4291389.301 54.47
LOCATION L0004872      VOLUME  650186.248 4291361.923 54.48
LOCATION L0004873      VOLUME  650105.134 4291330.617 54.77
LOCATION L0004874      VOLUME  650027.586 4291291.358 53.68
LOCATION L0004875      VOLUME  649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE432
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE444
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 3
** 649898.118, 4291201.738, 52.60, 1.30, 26.51
** 649581.371, 4290941.907, 50.98, 1.30, 26.51
** 649582.608, 4290945.618, 50.95, 1.30, 26.51
** -----
LOCATION L0004876      VOLUME  649876.084 4291183.663 52.49
LOCATION L0004877      VOLUME  649832.014 4291147.512 52.26
LOCATION L0004878      VOLUME  649787.945 4291111.362 52.04
LOCATION L0004879      VOLUME  649743.875 4291075.211 51.81
LOCATION L0004880      VOLUME  649699.806 4291039.060 51.59
LOCATION L0004881      VOLUME  649655.736 4291002.909 51.36
LOCATION L0004882      VOLUME  649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE444
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE452
** DESCRSRC CONSTRUCTION PICKUP TRUCK EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649582.567, 4290938.264, 50.99, 1.30, 36.74

```

```

** 649458.557, 4290838.151, 50.39, 1.30, 36.74
** -----
LOCATION L0004883      VOLUME    649551.832 4290913.452 50.84
LOCATION L0004884      VOLUME    649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE452
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE462
** DESCRSRC CONSTRUCITON PICKUP TUCK EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649445.530, 4290815.617, 50.23, 1.30, 23.26
** 649303.390, 4290698.508, 49.82, 1.30, 23.26
** -----
LOCATION L0004885      VOLUME    649426.235 4290799.720 50.17
LOCATION L0004886      VOLUME    649387.646 4290767.926 50.06
LOCATION L0004887      VOLUME    649349.056 4290736.133 49.95
LOCATION L0004888      VOLUME    649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE462
** -----
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE472
** DESCRSRC CONSTRUCTION PICKUP TRUCK TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649138.007, 4290774.495, 49.32, 1.30, 11.63
** 649266.737, 4290695.826, 49.56, 1.30, 11.63
** -----
LOCATION L0004889      VOLUME    649148.673 4290767.977 49.34
LOCATION L0004890      VOLUME    649170.005 4290754.941 49.38
LOCATION L0004891      VOLUME    649191.337 4290741.904 49.42
LOCATION L0004892      VOLUME    649212.669 4290728.868 49.46
LOCATION L0004893      VOLUME    649234.001 4290715.832 49.50
LOCATION L0004894      VOLUME    649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE472
** SOURCE PARAMETERS **
** LINE VOLUME SOURCE ID = SLINE21
SRCPARAM L0000001      0.00000091      3.40      12.39      1.58

```

SRCPARAM	L0000002	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000003	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000004	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000005	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000006	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000007	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000008	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000009	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000010	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000011	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000012	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000013	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000014	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000015	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000016	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000017	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000018	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000019	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000020	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000021	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000022	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000023	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000024	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000025	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000026	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000027	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000028	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000029	0.00000091	3.40	12.39	1.58
SRCPARAM	L0000030	0.00000091	3.40	12.39	1.58

**

** LINE VOLUME SOURCE ID = SLINE31

SRCPARAM	L0004728	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004729	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004730	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004731	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004732	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004733	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004734	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004735	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004736	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004737	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004738	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004739	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004740	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004741	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004742	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004743	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004744	0.000001517	3.40	12.39	1.58
SRCPARAM	L0004745	0.000001517	3.40	12.39	1.58

**

SRCPARAM VOL41	0.0000273	3.400	3.951	3.160
** LINE VOLUME SOURCE ID = SLINE51				
SRCPARAM L0004746	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004747	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004748	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004749	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004750	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004751	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004752	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004753	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004754	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004755	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004756	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004757	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004758	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004759	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004760	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004761	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004762	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004763	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004764	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004765	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004766	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004767	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004768	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004769	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004770	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004771	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004772	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004773	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004774	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004775	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004776	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004777	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004778	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004779	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004780	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004781	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004782	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004783	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004784	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004785	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004786	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004787	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004788	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004789	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004790	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004791	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004792	0.000000003313	5.65	11.16	2.63
SRCPARAM L0004793	0.000000003313	5.65	11.16	2.63

[illegible]

SRCPARAM L0004844	0.00000003313	5.65	11.16	2.63
** -----				
SRCPARAM VOL1	0.0000375	3.400	11.628	3.160
SRCPARAM VOL2	0.0000375	3.400	20.233	3.160
SRCPARAM VOL3	0.0000375	3.400	15.116	3.160
** LINE VOLUME SOURCE ID = SLINE43				
SRCPARAM L0004845	0.00000625	3.40	40.47	1.58
SRCPARAM L0004846	0.00000625	3.40	40.47	1.58
SRCPARAM L0004847	0.00000625	3.40	40.47	1.58
SRCPARAM L0004848	0.00000625	3.40	40.47	1.58
SRCPARAM L0004849	0.00000625	3.40	40.47	1.58
SRCPARAM L0004850	0.00000625	3.40	40.47	1.58
** -----				
** LINE VOLUME SOURCE ID = SLINE44				
SRCPARAM L0004851	0.000005357	3.40	26.51	1.58
SRCPARAM L0004852	0.000005357	3.40	26.51	1.58
SRCPARAM L0004853	0.000005357	3.40	26.51	1.58
SRCPARAM L0004854	0.000005357	3.40	26.51	1.58
SRCPARAM L0004855	0.000005357	3.40	26.51	1.58
SRCPARAM L0004856	0.000005357	3.40	26.51	1.58
SRCPARAM L0004857	0.000005357	3.40	26.51	1.58
** -----				
** LINE VOLUME SOURCE ID = SLINE45				
SRCPARAM L0004858	0.00001875	3.40	36.74	1.58
SRCPARAM L0004859	0.00001875	3.40	36.74	1.58
** -----				
** LINE VOLUME SOURCE ID = SLINE46				
SRCPARAM L0004860	0.000009375	3.40	23.26	1.58
SRCPARAM L0004861	0.000009375	3.40	23.26	1.58
SRCPARAM L0004862	0.000009375	3.40	23.26	1.58
SRCPARAM L0004863	0.000009375	3.40	23.26	1.58
** -----				
** LINE VOLUME SOURCE ID = SLINE47				
SRCPARAM L0004864	0.00000625	3.40	11.63	1.58
SRCPARAM L0004865	0.00000625	3.40	11.63	1.58
SRCPARAM L0004866	0.00000625	3.40	11.63	1.58
SRCPARAM L0004867	0.00000625	3.40	11.63	1.58
SRCPARAM L0004868	0.00000625	3.40	11.63	1.58
SRCPARAM L0004869	0.00000625	3.40	11.63	1.58
** -----				
SRCPARAM VOL12	0.0	1.300	11.628	1.210
SRCPARAM VOL22	0.0	1.300	20.233	1.210
SRCPARAM VOL32	0.0	1.300	15.116	1.210
** LINE VOLUME SOURCE ID = SLINE432				
SRCPARAM L0004870	0.0	1.30	40.47	0.60
SRCPARAM L0004871	0.0	1.30	40.47	0.60
SRCPARAM L0004872	0.0	1.30	40.47	0.60
SRCPARAM L0004873	0.0	1.30	40.47	0.60
SRCPARAM L0004874	0.0	1.30	40.47	0.60
SRCPARAM L0004875	0.0	1.30	40.47	0.60

```

** -----
** LINE VOLUME SOURCE ID = SLINE444
SRCPARAM L0004876      0.0      1.30      26.51      0.60
SRCPARAM L0004877      0.0      1.30      26.51      0.60
SRCPARAM L0004878      0.0      1.30      26.51      0.60
SRCPARAM L0004879      0.0      1.30      26.51      0.60
SRCPARAM L0004880      0.0      1.30      26.51      0.60
SRCPARAM L0004881      0.0      1.30      26.51      0.60
SRCPARAM L0004882      0.0      1.30      26.51      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE452
SRCPARAM L0004883      0.0      1.30      36.74      0.60
SRCPARAM L0004884      0.0      1.30      36.74      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE462
SRCPARAM L0004885      0.0      1.30      23.26      0.60
SRCPARAM L0004886      0.0      1.30      23.26      0.60
SRCPARAM L0004887      0.0      1.30      23.26      0.60
SRCPARAM L0004888      0.0      1.30      23.26      0.60
** -----
** LINE VOLUME SOURCE ID = SLINE472
SRCPARAM L0004889      0.0      1.30      11.63      0.60
SRCPARAM L0004890      0.0      1.30      11.63      0.60
SRCPARAM L0004891      0.0      1.30      11.63      0.60
SRCPARAM L0004892      0.0      1.30      11.63      0.60
SRCPARAM L0004893      0.0      1.30      11.63      0.60
SRCPARAM L0004894      0.0      1.30      11.63      0.60
** -----
    URBANSRC ALL
    SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD RECEPTOR PATHWAY
*****
**
**
RE STARTING
    INCLUDED "AERMOD LAYOVER CONSTRUCT.ROU"
RE FINISHED
**
*****
** AERMOD METEOROLOGY PATHWAY
*****
**
**
ME STARTING
    SURFFILE "..\..\MET DATA\14-18.SFC"
    PROFFILE "..\..\MET DATA\14-18.PFL"
    SURFDATA 93225 2014

```



```

UAIRDATA 23230 2014 OAKLAND/WSO_AP
PROFBASE 8.0 METERS
ME FINISHED
**
*****
** AERMOD OUTPUT PATHWAY
*****
**
**
OU STARTING
** AUTO-GENERATED PLOTFILES
  PLOTFILE PERIOD ALL "AERMOD LAYOVER CONSTRUCT UNMITIGATED\PE00GALL.PLT" 31
  FILEFORM EXP
  SUMMFILE "AERMOD LAYOVER CONSTRUCT.SUM"
OU FINISHED

```

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

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

```

A Total of      0 Fatal Error Message(s)
A Total of     30 Warning Message(s)
A Total of      0 Informational Message(s)

```

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

```

***** WARNING MESSAGES *****
SO W320      690      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      691      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      692      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      694      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      695      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      696      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      697      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      698      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      699      VPARM: Input Parameter May Be Out-of-Range for Parameter
      QS
SO W320      702      VPARM: Input Parameter May Be Out-of-Range for Parameter

```


*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

** Model Options Selected:

- * Model Uses Regulatory DEFAULT Options
- * Model Is Setup For Calculation of Average CONCentration Values.
- * NO GAS DEPOSITION Data Provided.
- * NO PARTICLE DEPOSITION Data Provided.
- * Model Uses NO DRY DEPLETION. DDPLETE = F
- * Model Uses NO WET DEPLETION. WETDPLT = F
- * Stack-tip Downwash.
- * Model Accounts for ELEVated Terrain Effects.
- * Use Calms Processing Routine.
- * Use Missing Data Processing Routine.
- * No Exponential Decay.
- * Model Uses URBAN Dispersion Algorithm for the SBL for 204 Source(s),
for Total of 1 Urban Area(s):
- Urban Population = 2500000.0 ; Urban Roughness Length = 1.000 m
- * Urban Roughness Length of 1.0 Meter Used.
- * ADJ_U* - Use ADJ_U* option for SBL in AERMET
- * CCVR_Sub - Meteorological data includes CCVR substitutions
- * TEMP_Sub - Meteorological data includes TEMP substitutions
- * Model Accepts FLAGPOLE Receptor . Heights.
- * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes: 204 Source(s); 1 Source Group(s); and 329
Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 204 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)
and: 0 SWPOINT source(s)

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

**The AERMET Input Meteorological Data Version Date: 19191

****Output Options Selected:**

Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

NOTE: Option for EXponential format used in formatted output result files
(FILEFORM Keyword)

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

****Misc. Inputs:** Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay
Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

****Approximate Storage Requirements of Model = 3.6 MB of RAM.**

****Input Runstream File:** aermod.inp

****Output Print File:** aermod.out

****Detailed Error/Message File:** AERMOD LAYOVER CONSTRUCT.ERR

****File for Summary of Results:** AERMOD LAYOVER CONSTRUCT.SUM

▲ ***** AERMOD - VERSION 22112 ***** ***** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -**
UNMITIGATED ***** 07/10/23**
***** AERMET - VERSION 19191 ***** *******
***** 21:24:19**

***** MODELOPTs:** RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
PAGE 2

***** VOLUME SOURCE DATA *****

INIT.	URBAN	NUMBER EMISSION RATE	BASE	RELEASE	INIT.
INIT.	SOURCE	EMISSION RATE			
SZ	SOURCE	PART. (GRAMS/SEC)	X	Y	SY
ID	SCALAR VARY	CATS.	(METERS)	(METERS)	(METERS)

(METERS)

BY

L0000001	0	0.91000E-06	649993.6	4291183.8	52.6	3.40	12.39
1.58 YES							
L0000002	0	0.91000E-06	650017.0	4291196.4	52.7	3.40	12.39
1.58 YES							
L0000003	0	0.91000E-06	650040.5	4291209.1	52.8	3.40	12.39
1.58 YES							
L0000004	0	0.91000E-06	650063.9	4291221.7	52.9	3.40	12.39
1.58 YES							
L0000005	0	0.91000E-06	650087.4	4291234.4	53.0	3.40	12.39
1.58 YES							
L0000006	0	0.91000E-06	650110.8	4291247.0	53.1	3.40	12.39
1.58 YES							
L0000007	0	0.91000E-06	650134.9	4291258.4	53.2	3.40	12.39
1.58 YES							
L0000008	0	0.91000E-06	650159.5	4291268.4	53.3	3.40	12.39
1.58 YES							
L0000009	0	0.91000E-06	650184.2	4291278.5	53.3	3.40	12.39
1.58 YES							
L0000010	0	0.91000E-06	650209.3	4291287.6	53.4	3.40	12.39
1.58 YES							
L0000011	0	0.91000E-06	650234.8	4291295.2	53.5	3.40	12.39
1.58 YES							
L0000012	0	0.91000E-06	650260.3	4291302.9	53.6	3.40	12.39
1.58 YES							
L0000013	0	0.91000E-06	650285.8	4291310.5	53.6	3.40	12.39
1.58 YES							
L0000014	0	0.91000E-06	650311.7	4291316.6	53.2	3.40	12.39
1.58 YES							
L0000015	0	0.91000E-06	650337.7	4291322.7	52.8	3.40	12.39
1.58 YES							
L0000016	0	0.91000E-06	650363.6	4291328.8	52.4	3.40	12.39
1.58 YES							
L0000017	0	0.91000E-06	650389.6	4291334.6	52.0	3.40	12.39
1.58 YES							
L0000018	0	0.91000E-06	650416.1	4291337.6	51.4	3.40	12.39
1.58 YES							
L0000019	0	0.91000E-06	650442.5	4291340.5	50.7	3.40	12.39
1.58 YES							
L0000020	0	0.91000E-06	650469.0	4291343.5	50.0	3.40	12.39
1.58 YES							
L0000021	0	0.91000E-06	650493.3	4291354.2	49.9	3.40	12.39
1.58 YES							
L0000022	0	0.91000E-06	650519.6	4291356.5	50.2	3.40	12.39
1.58 YES							
L0000023	0	0.91000E-06	650546.2	4291357.4	50.5	3.40	12.39
1.58 YES							

INIT.	URBAN	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.
	SOURCE	EMISSION	RATE					
SZ	SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY
	ID	SCALAR	VARY					
		CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

(METERS)

BY

L0004738	0	0.15170E-05	651018.9	4291355.2	55.9	3.40	12.39
1.58 YES							
L0004739	0	0.15170E-05	651045.3	4291351.6	56.0	3.40	12.39
1.58 YES							
L0004740	0	0.15170E-05	651071.6	4291347.5	59.4	3.40	12.39
1.58 YES							
L0004741	0	0.15170E-05	651097.7	4291342.7	62.4	3.40	12.39
1.58 YES							
L0004742	0	0.15170E-05	651123.1	4291334.4	61.6	3.40	12.39
1.58 YES							
L0004743	0	0.15170E-05	651148.3	4291325.9	60.7	3.40	12.39
1.58 YES							
L0004744	0	0.15170E-05	651173.2	4291316.5	59.5	3.40	12.39
1.58 YES							
L0004745	0	0.15170E-05	651197.3	4291305.1	58.0	3.40	12.39
1.58 YES							
VOL41	0	0.27300E-04	649972.1	4291194.8	53.1	3.40	3.95
3.16 YES							
L0004746	0	0.33130E-08	648628.8	4291375.5	48.7	5.65	11.16
2.63 YES							
L0004747	0	0.33130E-08	648644.0	4291356.9	48.7	5.65	11.16
2.63 YES							
L0004748	0	0.33130E-08	648659.1	4291338.3	48.8	5.65	11.16
2.63 YES							
L0004749	0	0.33130E-08	648674.3	4291319.7	48.8	5.65	11.16
2.63 YES							
L0004750	0	0.33130E-08	648689.4	4291301.1	48.8	5.65	11.16
2.63 YES							
L0004751	0	0.33130E-08	648704.6	4291282.5	48.9	5.65	11.16
2.63 YES							
L0004752	0	0.33130E-08	648719.7	4291263.9	48.9	5.65	11.16
2.63 YES							
L0004753	0	0.33130E-08	648734.9	4291245.3	48.9	5.65	11.16
2.63 YES							
L0004754	0	0.33130E-08	648750.0	4291226.7	49.0	5.65	11.16
2.63 YES							
L0004755	0	0.33130E-08	648765.2	4291208.0	49.0	5.65	11.16
2.63 YES							
L0004756	0	0.33130E-08	648780.3	4291189.4	49.0	5.65	11.16
2.63 YES							
L0004757	0	0.33130E-08	648795.5	4291170.8	49.1	5.65	11.16
2.63 YES							
L0004758	0	0.33130E-08	648810.6	4291152.2	49.1	5.65	11.16
2.63 YES							
L0004759	0	0.33130E-08	648825.8	4291133.6	49.1	5.65	11.16
2.63 YES							

INIT.	URBAN	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.
	SOURCE	EMISSION	RATE					
SZ	SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY
	ID	SCALAR	VARY					
		CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

(METERS)

BY

L0004777	0	0.33130E-08	649104.1	4290804.6	49.7	5.65	11.16
2.63 YES							
L0004778	0	0.33130E-08	649123.8	4290791.0	49.7	5.65	11.16
2.63 YES							
L0004779	0	0.33130E-08	649143.6	4290777.3	49.7	5.65	11.16
2.63 YES							
L0004780	0	0.33130E-08	649163.3	4290763.7	49.7	5.65	11.16
2.63 YES							
L0004781	0	0.33130E-08	649183.7	4290751.1	49.7	5.65	11.16
2.63 YES							
L0004782	0	0.33130E-08	649205.2	4290740.4	49.8	5.65	11.16
2.63 YES							
L0004783	0	0.33130E-08	649226.7	4290729.7	49.9	5.65	11.16
2.63 YES							
L0004784	0	0.33130E-08	649249.5	4290723.3	49.8	5.65	11.16
2.63 YES							
L0004785	0	0.33130E-08	649273.2	4290719.9	49.7	5.65	11.16
2.63 YES							
L0004786	0	0.33130E-08	649296.7	4290722.4	49.7	5.65	11.16
2.63 YES							
L0004787	0	0.33130E-08	649320.0	4290728.0	49.8	5.65	11.16
2.63 YES							
L0004788	0	0.33130E-08	649342.1	4290736.3	49.8	5.65	11.16
2.63 YES							
L0004789	0	0.33130E-08	649361.6	4290750.4	49.9	5.65	11.16
2.63 YES							
L0004790	0	0.33130E-08	649381.1	4290764.4	49.9	5.65	11.16
2.63 YES							
L0004791	0	0.33130E-08	649400.4	4290778.7	50.0	5.65	11.16
2.63 YES							
L0004792	0	0.33130E-08	649419.3	4290793.4	50.1	5.65	11.16
2.63 YES							
L0004793	0	0.33130E-08	649438.2	4290808.2	50.3	5.65	11.16
2.63 YES							
L0004794	0	0.33130E-08	649457.2	4290822.9	50.4	5.65	11.16
2.63 YES							
L0004795	0	0.33130E-08	649476.1	4290837.7	50.5	5.65	11.16
2.63 YES							
L0004796	0	0.33130E-08	649495.0	4290852.4	50.6	5.65	11.16
2.63 YES							
L0004797	0	0.33130E-08	649514.0	4290867.2	50.7	5.65	11.16
2.63 YES							
L0004798	0	0.33130E-08	649532.9	4290881.9	50.8	5.65	11.16
2.63 YES							
L0004799	0	0.33130E-08	649551.8	4290896.7	51.0	5.65	11.16
2.63 YES							

(METERS)

BY

L0004817	0	0.33130E-08	649892.0	4291162.9	53.1	5.65	11.16
2.63 YES							
L0004818	0	0.33130E-08	649910.9	4291177.8	53.2	5.65	11.16
2.63 YES							
L0004819	0	0.33130E-08	649929.8	4291192.6	53.4	5.65	11.16
2.63 YES							
L0004820	0	0.33130E-08	649948.7	4291207.4	53.5	5.65	11.16
2.63 YES							
L0004821	0	0.33130E-08	649968.1	4291221.3	53.6	5.65	11.16
2.63 YES							
L0004822	0	0.33130E-08	649989.4	4291232.4	53.6	5.65	11.16
2.63 YES							
L0004823	0	0.33130E-08	650010.6	4291243.6	53.6	5.65	11.16
2.63 YES							
L0004824	0	0.33130E-08	650031.9	4291254.7	53.6	5.65	11.16
2.63 YES							
L0004825	0	0.33130E-08	650053.2	4291265.8	53.6	5.65	11.16
2.63 YES							
L0004826	0	0.33130E-08	650074.4	4291277.0	53.7	5.65	11.16
2.63 YES							
L0004827	0	0.33130E-08	650095.7	4291288.1	53.7	5.65	11.16
2.63 YES							
L0004828	0	0.33130E-08	650117.9	4291297.0	53.7	5.65	11.16
2.63 YES							
L0004829	0	0.33130E-08	650140.6	4291304.9	53.7	5.65	11.16
2.63 YES							
L0004830	0	0.33130E-08	650163.2	4291312.9	53.7	5.65	11.16
2.63 YES							
L0004831	0	0.33130E-08	650185.8	4291320.9	53.7	5.65	11.16
2.63 YES							
L0004832	0	0.33130E-08	650208.5	4291328.9	53.7	5.65	11.16
2.63 YES							
L0004833	0	0.33130E-08	650231.1	4291336.9	53.7	5.65	11.16
2.63 YES							
L0004834	0	0.33130E-08	650253.7	4291344.9	53.7	5.65	11.16
2.63 YES							
L0004835	0	0.33130E-08	650276.3	4291352.9	53.7	5.65	11.16
2.63 YES							
L0004836	0	0.33130E-08	650299.0	4291360.9	53.7	5.65	11.16
2.63 YES							
L0004837	0	0.33130E-08	650321.6	4291368.8	53.8	5.65	11.16
2.63 YES							
L0004838	0	0.33130E-08	650345.2	4291373.2	53.8	5.65	11.16
2.63 YES							
L0004839	0	0.33130E-08	650368.8	4291377.5	53.8	5.65	11.16
2.63 YES							

(METERS)

BY

L0004854	0	0.53570E-05	649743.9	4291075.2	51.8	3.40	26.51
1.58 YES							
L0004855	0	0.53570E-05	649699.8	4291039.1	51.6	3.40	26.51
1.58 YES							
L0004856	0	0.53570E-05	649655.7	4291002.9	51.4	3.40	26.51
1.58 YES							
L0004857	0	0.53570E-05	649611.7	4290966.8	51.1	3.40	26.51
1.58 YES							
L0004858	0	0.18750E-04	649551.8	4290913.5	50.8	3.40	36.74
1.58 YES							
L0004859	0	0.18750E-04	649490.4	4290863.8	50.5	3.40	36.74
1.58 YES							
L0004860	0	0.93750E-05	649426.2	4290799.7	50.2	3.40	23.26
1.58 YES							
L0004861	0	0.93750E-05	649387.6	4290767.9	50.1	3.40	23.26
1.58 YES							
L0004862	0	0.93750E-05	649349.1	4290736.1	49.9	3.40	23.26
1.58 YES							
L0004863	0	0.93750E-05	649310.5	4290704.3	49.8	3.40	23.26
1.58 YES							
L0004864	0	0.62500E-05	649148.7	4290768.0	49.3	3.40	11.63
1.58 YES							
L0004865	0	0.62500E-05	649170.0	4290754.9	49.4	3.40	11.63
1.58 YES							
L0004866	0	0.62500E-05	649191.3	4290741.9	49.4	3.40	11.63
1.58 YES							
L0004867	0	0.62500E-05	649212.7	4290728.9	49.5	3.40	11.63
1.58 YES							
L0004868	0	0.62500E-05	649234.0	4290715.8	49.5	3.40	11.63
1.58 YES							
L0004869	0	0.62500E-05	649255.3	4290702.8	49.5	3.40	11.63
1.58 YES							
VOL12	0	0.00000E+00	650665.3	4291406.9	53.2	1.30	11.63
1.21 YES							
VOL22	0	0.00000E+00	650564.0	4291398.4	53.2	1.30	20.23
1.21 YES							
VOL32	0	0.00000E+00	650456.4	4291399.5	53.9	1.30	15.12
1.21 YES							
L0004870	0	0.00000E+00	650353.1	4291409.6	54.2	1.30	40.47
0.60 YES							
L0004871	0	0.00000E+00	650268.8	4291389.3	54.5	1.30	40.47
0.60 YES							
L0004872	0	0.00000E+00	650186.2	4291361.9	54.5	1.30	40.47
0.60 YES							
L0004873	0	0.00000E+00	650105.1	4291330.6	54.8	1.30	40.47
0.60 YES							

INIT.	URBAN	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.
	SOURCE	EMISSION	RATE					
SZ	SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY
	ID	SCALAR	VARY					
		CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

(METERS)

BY

L0004891 0 0.00000E+00 649191.3 4290741.9 49.4 1.30 11.63
0.60 YES
L0004892 0 0.00000E+00 649212.7 4290728.9 49.5 1.30 11.63
0.60 YES
L0004893 0 0.00000E+00 649234.0 4290715.8 49.5 1.30 11.63
0.60 YES
L0004894 0 0.00000E+00 649255.3 4290702.8 49.5 1.30 11.63
0.60 YES

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

SOURCE IDs

ALL L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 ,

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

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

 L0000025 , L0000026 , L0000027 , L0000028 , L0000029 ,
L0000030 , L0004728 , L0004729 ,

 L0004730 , L0004731 , L0004732 , L0004733 , L0004734 ,
L0004735 , L0004736 , L0004737 ,

 L0004738 , L0004739 , L0004740 , L0004741 , L0004742 ,
L0004743 , L0004744 , L0004745 ,

 VOL41 , L0004746 , L0004747 , L0004748 , L0004749 ,
L0004750 , L0004751 , L0004752 ,

 L0004753 , L0004754 , L0004755 , L0004756 , L0004757 ,

L0004758	, L0004759	, L0004760	,			
	L0004761	, L0004762	, L0004763	, L0004764	, L0004765	,
L0004766	, L0004767	, L0004768	,			
	L0004769	, L0004770	, L0004771	, L0004772	, L0004773	,
L0004774	, L0004775	, L0004776	,			
	L0004777	, L0004778	, L0004779	, L0004780	, L0004781	,
L0004782	, L0004783	, L0004784	,			
	L0004785	, L0004786	, L0004787	, L0004788	, L0004789	,
L0004790	, L0004791	, L0004792	,			
	L0004793	, L0004794	, L0004795	, L0004796	, L0004797	,
L0004798	, L0004799	, L0004800	,			
	L0004801	, L0004802	, L0004803	, L0004804	, L0004805	,
L0004806	, L0004807	, L0004808	,			
	L0004809	, L0004810	, L0004811	, L0004812	, L0004813	,
L0004814	, L0004815	, L0004816	,			
	L0004817	, L0004818	, L0004819	, L0004820	, L0004821	,
L0004822	, L0004823	, L0004824	,			
	L0004825	, L0004826	, L0004827	, L0004828	, L0004829	,
L0004830	, L0004831	, L0004832	,			
	L0004833	, L0004834	, L0004835	, L0004836	, L0004837	,
L0004838	, L0004839	, L0004840	,			
	L0004841	, L0004842	, L0004843	, L0004844	, VOL1	,
VOL2	, VOL3	, L0004845	,			
	L0004846	, L0004847	, L0004848	, L0004849	, L0004850	,
L0004851	, L0004852	, L0004853	,			

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

SOURCE IDs


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L0004859      L0004854      , L0004855      , L0004856      , L0004857      , L0004858      ,
               , L0004860      , L0004861      ,
L0004867      L0004862      , L0004863      , L0004864      , L0004865      , L0004866      ,
               , L0004868      , L0004869      ,
L0004872      VOL12       , VOL22       , VOL32       , L0004870      , L0004871      ,
               , L0004873      , L0004874      ,
L0004880      L0004875      , L0004876      , L0004877      , L0004878      , L0004879      ,
               , L0004881      , L0004882      ,
L0004888      L0004883      , L0004884      , L0004885      , L0004886      , L0004887      ,
               , L0004889      , L0004890      ,

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                L0004891      , L0004892      , L0004893      , L0004894      ,
^ *** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED                ***      07/10/23
*** AERMET - VERSION 19191 ***      ***
                ***      21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP	SOURCE IDs
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L0000005	2500000.	L0000001 , L0000002 , L0000003 , L0000004 ,
L0000008	, L0000006	, L0000007 ,
	,	
L0000014	L0000009	, L0000010 , L0000011 , L0000012 , L0000013 ,
	, L0000015	, L0000016 ,
L0000022	L0000017	, L0000018 , L0000019 , L0000020 , L0000021 ,
	, L0000023	, L0000024 ,
L0000030	L0000025	, L0000026 , L0000027 , L0000028 , L0000029 ,
	, L0004728	, L0004729 ,
L0004735	L0004730	, L0004731 , L0004732 , L0004733 , L0004734 ,
	, L0004736	, L0004737 ,

L0004743	L0004738 , L0004744	, L0004739 , L0004745	, L0004740 ,	, L0004741	, L0004742	,
L0004750	VOL41 , L0004751	, L0004746 , L0004752	, L0004747 ,	, L0004748	, L0004749	,
L0004758	L0004753 , L0004759	, L0004754 , L0004760	, L0004755 ,	, L0004756	, L0004757	,
L0004766	L0004761 , L0004767	, L0004762 , L0004768	, L0004763 ,	, L0004764	, L0004765	,
L0004774	L0004769 , L0004775	, L0004770 , L0004776	, L0004771 ,	, L0004772	, L0004773	,
L0004782	L0004777 , L0004783	, L0004778 , L0004784	, L0004779 ,	, L0004780	, L0004781	,
L0004790	L0004785 , L0004791	, L0004786 , L0004792	, L0004787 ,	, L0004788	, L0004789	,
L0004798	L0004793 , L0004799	, L0004794 , L0004800	, L0004795 ,	, L0004796	, L0004797	,
L0004806	L0004801 , L0004807	, L0004802 , L0004808	, L0004803 ,	, L0004804	, L0004805	,
L0004814	L0004809 , L0004815	, L0004810 , L0004816	, L0004811 ,	, L0004812	, L0004813	,
L0004822	L0004817 , L0004823	, L0004818 , L0004824	, L0004819 ,	, L0004820	, L0004821	,
L0004830	L0004825 , L0004831	, L0004826 , L0004832	, L0004827 ,	, L0004828	, L0004829	,
L0004838	L0004833 , L0004839	, L0004834 , L0004840	, L0004835 ,	, L0004836	, L0004837	,
VOL2	L0004841 , VOL3	, L0004842 , L0004845	, L0004843 ,	, L0004844	, VOL1	,
L0004851	L0004846 , L0004852	, L0004847 , L0004853	, L0004848 ,	, L0004849	, L0004850	,
▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - UNMITIGATED *** 07/10/23 *** AERMET - VERSION 19191 *** *** *** 21:24:19						

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP	SOURCE IDs
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L0004859	L0004854 , L0004855 , L0004856 , L0004857 , L0004858 , L0004860 , L0004861 ,	
L0004867	L0004862 , L0004863 , L0004864 , L0004865 , L0004866 , L0004868 , L0004869 ,	
L0004872	VOL12 , VOL22 , VOL32 , L0004870 , L0004871 , L0004873 , L0004874 ,	
L0004880	L0004875 , L0004876 , L0004877 , L0004878 , L0004879 , L0004881 , L0004882 ,	
L0004888	L0004883 , L0004884 , L0004885 , L0004886 , L0004887 , L0004889 , L0004890 ,	
	L0004891 , L0004892 , L0004893 , L0004894 ,	

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23
 *** AERMET - VERSION 19191 *** ***
 *** 21:24:19

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2,
649826.2, 649838.2, 649850.2,
649862.2,

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

4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0,
4291359.0, 4291376.0, 4291393.0,
4291410.0,

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)					X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20	
649802.20	649814.20	649826.20	649838.20			
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

4291409.99	|	54.60	54.80	54.90	54.80	54.90
54.90		54.90	55.00	55.00		
4291392.99	|	54.70	54.80	54.80	54.80	54.80
54.80		54.90	54.90	55.00		
4291375.99	|	54.80	54.90	54.90	54.90	54.90
54.90		54.90	54.90	55.00		
4291358.99	|	54.80	54.90	54.90	54.90	54.90
54.90		54.90	54.90	55.00		
4291341.99	|	54.80	54.80	54.90	55.00	55.00
55.00		55.00	54.90	54.90		
4291324.99	|	54.80	54.90	55.20	55.40	55.40
55.30		55.20	55.00	54.90		
4291307.99	|	55.00	54.90	55.10	55.20	55.20
55.30		55.60	55.60	55.40		
4291290.99	|	56.10	56.20	56.50	56.80	56.70
57.00		56.80	56.10	55.50		
4291273.99	|	57.10	57.80	57.90	58.00	58.00
57.90		57.10	55.80	55.30		
4291256.99	|	57.70	58.00	57.90	58.00	58.00
58.00		57.00	55.60	55.00		
4291239.99	|	57.60	57.60	57.40	57.30	57.30
57.20		56.50	55.00	54.00		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	649850.20	649862.20	
4291409.99	55.10	55.10	
4291392.99	55.10	55.20	
4291375.99	55.20	55.20	
4291358.99	55.10	55.20	
4291341.99	55.00	55.10	
4291324.99	54.90	54.80	
4291307.99	55.00	54.60	
4291290.99	55.10	54.60	
4291273.99	55.10	54.50	
4291256.99	54.90	54.20	
4291239.99	53.90	53.70	

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23
*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)					X-COORD (METERS)
	649742.20	649754.20	649766.20	649778.20	649790.20
649802.20	649814.20	649826.20	649838.20		
4291409.99	54.60	54.80	54.90	54.80	54.90
54.90	54.90	55.00	55.00		
4291392.99	54.70	54.80	54.80	54.80	54.80
54.80	54.90	54.90	55.00		
4291375.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		
4291358.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		

4291341.99	|	54.80	54.80	54.90	55.00	55.00
55.00		55.00	54.90	54.90		
4291324.99	|	54.80	54.90	55.20	55.40	55.40
55.30		55.20	55.00	54.90		
4291307.99	|	55.00	54.90	57.90	57.90	57.90
57.90		55.60	55.60	55.40		
4291290.99	|	56.10	57.50	57.90	57.90	57.90
57.90		56.80	56.10	55.50		
4291273.99	|	57.40	57.80	57.90	58.00	58.00
57.90		57.80	57.80	55.30		
4291256.99	|	57.70	58.00	57.90	58.00	58.00
58.00		57.00	57.80	55.00		
4291239.99	|	57.60	57.60	57.40	57.30	57.30
57.50		57.30	58.00	58.00		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)		X-COORD (METERS)
	649850.20	649862.20

4291409.99	|	55.10	55.10
4291392.99	|	55.10	55.20
4291375.99	|	55.20	55.20
4291358.99	|	55.10	55.20
4291341.99	|	55.00	55.10
4291324.99	|	54.90	54.80
4291307.99	|	55.00	54.60
4291290.99	|	55.10	54.60
4291273.99	|	55.10	54.50
4291256.99	|	54.90	54.20
4291239.99	|	53.90	53.70

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS)					X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20	
649802.20	649814.20	649826.20	649838.20			

4291409.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291392.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291375.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291358.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291341.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291324.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291307.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291290.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291273.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291256.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		
4291239.99	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80	1.80	1.80	1.80		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	649850.20	649862.20	

- - - - -

4291409.99	1.80	1.80
4291392.99	1.80	1.80
4291375.99	1.80	1.80
4291358.99	1.80	1.80
4291341.99	1.80	1.80
4291324.99	1.80	1.80
4291307.99	1.80	1.80
4291290.99	1.80	1.80
4291273.99	1.80	1.80
4291256.99	1.80	1.80
4291239.99	1.80	1.80

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23
*** AERMET - VERSION 19191 *** ***
*** 21:24:19

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*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

(650194.2, 4291271.5, 53.3, 53.3, 1.8);	(650195.6,
4291266.8, 53.4, 53.4, 1.8);	
(650196.4, 4291262.6, 53.5, 53.5, 1.8);	(650197.8,
4291257.9, 53.6, 53.6, 1.8);	
(650199.8, 4291253.2, 53.6, 53.6, 1.8);	(650202.0,
4291248.0, 53.7, 53.7, 1.8);	
(650204.2, 4291242.5, 53.7, 53.7, 1.8);	(650205.8,
4291236.7, 53.8, 53.8, 1.8);	
(650212.3, 4291238.7, 53.8, 53.8, 1.8);	(650218.3,
4291240.5, 53.7, 53.7, 1.8);	
(650224.7, 4291242.5, 53.7, 53.7, 1.8);	(650232.7,
4291245.3, 53.7, 53.7, 1.8);	
(650241.1, 4291248.3, 53.7, 53.7, 1.8);	(650249.2,
4291250.9, 53.7, 53.7, 1.8);	
(650256.6, 4291253.7, 53.7, 53.7, 1.8);	(650266.2,
4291257.1, 53.7, 53.7, 1.8);	
(650206.4, 4291276.2, 53.4, 53.4, 1.8);	(650208.5,
4291273.2, 53.4, 53.4, 1.8);	
(650210.1, 4291268.6, 53.5, 53.5, 1.8);	(650212.3,
4291264.6, 53.6, 53.6, 1.8);	
(650235.3, 4291286.2, 53.6, 53.6, 1.8);	(650236.7,
4291283.0, 53.6, 53.6, 1.8);	
(650238.2, 4291279.8, 53.6, 53.6, 1.8);	(650239.2,
4291276.2, 53.6, 53.6, 1.8);	
(650239.7, 4291273.0, 53.6, 53.6, 1.8);	(650256.4,

4291292.0,	53.7,	53.7,	1.8);		
(650258.0,	4291286.8,	53.7,	53.7,	1.8);	(650260.0,
4291279.8,	53.7,	53.7,	1.8);		
(650260.6,	4291272.4,	53.7,	53.7,	1.8);	(650263.8,
4291266.0,	53.7,	53.7,	1.8);		
(649381.2,	4290586.8,	50.8,	50.8,	1.8);	(649394.6,
4290600.2,	50.6,	50.6,	1.8);		
(649410.7,	4290612.7,	50.5,	50.5,	1.8);	(649425.9,
4290624.3,	50.6,	50.6,	1.8);		
(649417.8,	4290633.2,	50.5,	50.5,	1.8);	(649410.7,
4290643.1,	50.4,	50.4,	1.8);		
(649391.9,	4290566.2,	51.2,	51.2,	1.8);	(649400.8,
4290559.0,	51.4,	51.4,	1.8);		
(649406.2,	4290552.8,	51.5,	51.5,	1.8);	(649414.2,
4290537.6,	51.6,	51.6,	1.8);		
(649435.7,	4290606.4,	50.8,	50.8,	1.8);	(649444.6,
4290599.3,	50.8,	50.8,	1.8);		
(649449.1,	4290591.2,	51.0,	51.0,	1.8);	(649458.1,
4290584.1,	51.1,	51.1,	1.8);		
(649458.1,	4290644.0,	50.8,	50.8,	1.8);	(649468.8,
4290628.8,	51.1,	51.1,	1.8);		
(649481.3,	4290619.0,	51.3,	51.3,	1.8);	(649497.4,
4290607.3,	51.5,	51.5,	1.8);		
(649452.7,	4290733.4,	50.2,	50.2,	1.8);	(649462.5,
4290745.0,	50.3,	50.3,	1.8);		
(649473.2,	4290753.0,	50.3,	50.3,	1.8);	(649487.6,
4290762.0,	50.2,	50.2,	1.8);		
(649458.9,	4290719.1,	50.2,	50.2,	1.8);	(649482.2,
4290692.2,	50.6,	50.6,	1.8);		
(649496.5,	4290676.2,	50.8,	50.8,	1.8);	(649494.7,
4290750.4,	50.3,	50.3,	1.8);		
(649510.8,	4290725.3,	50.7,	50.7,	1.8);	(649531.4,
4290701.2,	50.7,	50.7,	1.8);		
(649512.6,	4290658.3,	51.1,	51.1,	1.8);	(649505.4,
4290620.7,	51.6,	51.6,	1.8);		
(649581.9,	4290816.0,	50.8,	50.8,	1.8);	(649595.6,
4290822.0,	50.9,	50.9,	1.8);		
(649605.9,	4290832.5,	50.9,	50.9,	1.8);	(649616.8,
4290841.6,	51.0,	51.0,	1.8);		
(649599.3,	4290800.4,	51.0,	51.0,	1.8);	(649604.7,
4290787.9,	51.2,	51.2,	1.8);		
(649623.4,	4290818.3,	51.3,	51.3,	1.8);	(649627.9,
4290802.2,	51.3,	51.3,	1.8);		
(649634.6,	4290882.6,	50.9,	50.9,	1.8);	(649644.4,
4290891.5,	50.9,	50.9,	1.8);		
(649657.9,	4290903.1,	51.0,	51.0,	1.8);	(649662.3,
4290845.9,	51.6,	51.6,	1.8);		
(649670.4,	4290910.3,	51.1,	51.1,	1.8);	(649672.2,
4290855.8,	51.6,	51.6,	1.8);		
(649681.1,	4290918.3,	51.1,	51.1,	1.8);	(649690.0,

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4290926.4,      51.1,      51.1,      1.8);
      ( 649703.5, 4290939.8,      51.1,      51.1,      1.8);      ( 649686.5,
4290867.4,      51.6,      51.6,      1.8);
      ( 649698.1, 4290813.7,      51.6,      51.6,      1.8);      ( 649718.7,
4290834.3,      51.6,      51.6,      1.8);
      ( 649741.0, 4290850.4,      51.7,      51.7,      1.8);      ( 649763.4,
4290863.8,      51.7,      51.7,      1.8);
      ( 649701.7, 4290877.2,      51.7,      51.7,      1.8);      ( 649715.1,
4290890.6,      51.6,      51.6,      1.8);
      ( 649732.1, 4290904.9,      51.4,      51.4,      1.8);      ( 649910.9,
4290991.7,      51.8,      51.8,      1.8);
      ( 649928.8, 4291003.3,      52.4,      52.4,      1.8);      ( 649945.8,
4291014.0,      52.6,      52.6,      1.8);
      ( 649962.8, 4291023.0,      52.7,      52.7,      1.8);      ( 650053.1,
4291107.9,      52.5,      52.5,      1.8);
^ *** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED      ***      07/10/23
*** AERMET - VERSION 19191 ***      ***
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*** MODELOPTs: RegDFault CONC ELEV FLGPOL URBAN ADJ_U*

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

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      ( 650064.7, 4291089.1,      52.7,      52.7,      1.8);      ( 650085.3,
4291104.3,      53.0,      53.0,      1.8);
      ( 650070.1, 4291118.7,      52.8,      52.8,      1.8);      ( 650083.5,
4291131.2,      53.1,      53.1,      1.8);
      ( 650146.1, 4291166.1,      54.0,      54.0,      1.8);      ( 650157.7,
4291151.8,      54.0,      54.0,      1.8);
      ( 650140.7, 4291144.6,      53.9,      53.9,      1.8);      ( 650115.7,
4291125.8,      53.7,      53.7,      1.8);
      ( 650113.9, 4291149.1,      53.8,      53.8,      1.8);      ( 650178.3,
4291183.9,      54.0,      54.0,      1.8);
      ( 650190.8, 4291167.8,      54.1,      54.1,      1.8);      ( 650434.9,
4291167.8,      52.7,      52.7,      1.8);
      ( 650417.1, 4291189.3,      53.3,      53.3,      1.8);      ( 650401.9,
4291217.0,      54.2,      54.2,      1.8);
      ( 650207.8, 4291177.7,      54.2,      54.2,      1.8);      ( 650225.7,
4291183.0,      54.2,      54.2,      1.8);
      ( 650240.9, 4291188.4,      54.3,      54.3,      1.8);      ( 650258.8,
4291195.6,      54.3,      54.3,      1.8);
      ( 650280.2, 4291200.9,      54.4,      54.4,      1.8);      ( 650293.7,
4291207.2,      54.2,      54.2,      1.8);
      ( 650315.1, 4291215.2,      54.1,      54.1,      1.8);      ( 650333.9,
4291220.6,      54.1,      54.1,      1.8);
      ( 650352.7, 4291225.1,      54.2,      54.2,      1.8);      ( 650374.1,

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4291231.3,	54.3,	54.3,	1.8);		
(650013.8,	4291462.0,	55.0,	55.0,	1.8);	(649930.6,
4291369.0,	55.9,	55.9,	1.8);		
(649914.5,	4291349.4,	55.4,	55.4,	1.8);	(649935.1,
4291336.0,	54.5,	54.5,	1.8);		
(649907.3,	4291317.2,	54.1,	54.1,	1.8);	(649919.9,
4291361.0,	55.7,	55.7,	1.8);		
(649909.1,	4291335.1,	54.7,	54.7,	1.8);	(649903.8,
4291306.5,	53.8,	53.8,	1.8);		
(649917.2,	4291272.5,	53.5,	53.5,	1.8);	(649911.8,
4291301.1,	53.8,	53.8,	1.8);		
(649924.3,	4291302.9,	53.8,	53.8,	1.8);	(650053.1,
4291363.7,	57.0,	57.0,	1.8);		
(650066.5,	4291373.5,	56.5,	56.5,	1.8);	(650079.0,
4291366.4,	56.4,	56.4,	1.8);		
(649216.8,	4290755.2,	49.8,	49.8,	0.0);	(649667.3,
4291204.2,	56.1,	56.1,	0.0);		
(649647.4,	4291189.0,	56.6,	56.6,	0.0);	(649627.6,
4291173.8,	56.6,	56.6,	0.0);		
(649607.8,	4291158.6,	55.6,	55.6,	0.0);	(649587.9,
4291143.4,	54.0,	54.0,	0.0);		
(649568.1,	4291128.1,	53.5,	53.5,	0.0);	(649548.3,
4291112.9,	54.0,	54.0,	0.0);		
(649528.4,	4291097.7,	54.3,	54.3,	0.0);	(649508.6,
4291082.5,	53.5,	53.5,	0.0);		
(649488.8,	4291067.3,	52.9,	52.9,	0.0);	(649468.9,
4291052.0,	53.2,	53.2,	0.0);		
(649449.1,	4291036.8,	54.2,	54.2,	0.0);	(649429.3,
4291021.6,	53.6,	53.6,	0.0);		
(649409.4,	4291006.4,	52.1,	52.1,	0.0);	(649389.6,
4290991.2,	51.1,	51.1,	0.0);		
(649358.6,	4290967.6,	50.3,	50.3,	0.0);	(649339.0,
4290952.1,	50.6,	50.6,	0.0);		
(649319.4,	4290936.6,	51.3,	51.3,	0.0);	(649299.8,
4290921.1,	51.7,	51.7,	0.0);		
(649280.2,	4290905.6,	52.0,	52.0,	0.0);	(649260.6,
4290890.1,	52.1,	52.1,	0.0);		
(649241.0,	4290874.6,	52.3,	52.3,	0.0);	(649221.3,
4290859.1,	52.5,	52.5,	0.0);		
(649201.7,	4290843.6,	52.3,	52.3,	0.0);	(649182.1,
4290828.1,	51.5,	51.5,	0.0);		
(649158.3,	4290816.1,	51.1,	51.1,	1.8);	(649684.2,
4291223.8,	55.4,	55.4,	1.8);		
(649247.5,	4290740.0,	49.7,	49.7,	0.0);	(649225.7,
4290769.6,	50.0,	50.0,	0.0);		
(649245.6,	4290784.9,	50.1,	50.1,	0.0);	(649265.4,
4290800.1,	50.0,	50.0,	0.0);		
(649285.2,	4290815.3,	50.0,	50.0,	0.0);	(649305.1,
4290830.5,	50.0,	50.0,	0.0);		
(649324.9,	4290845.7,	50.0,	50.0,	0.0);	(649344.8,

4290860.9,	49.9,	49.9,	0.0);		
(649364.6,	4290876.1,	50.0,	50.0,	0.0);	(649384.5,
4290891.3,	50.1,	50.1,	0.0);		
(649404.3,	4290906.5,	50.1,	50.1,	0.0);	(649424.2,
4290921.7,	50.5,	50.5,	0.0);		
(649444.0,	4290936.9,	51.0,	51.0,	0.0);	(649463.8,
4290952.1,	51.0,	51.0,	0.0);		
(649483.7,	4290967.3,	51.2,	51.2,	0.0);	(649503.5,
4290982.5,	51.2,	51.2,	0.0);		
(649523.4,	4290997.8,	51.1,	51.1,	0.0);	(649543.2,
4291013.0,	51.3,	51.3,	0.0);		
(649563.1,	4291028.2,	51.4,	51.4,	0.0);	(649582.9,
4291043.4,	51.6,	51.6,	0.0);		
(649602.7,	4291058.6,	51.8,	51.8,	0.0);	(649622.6,
4291073.8,	52.2,	52.2,	0.0);		
(649642.4,	4291089.0,	52.6,	52.6,	0.0);	(649662.3,
4291104.2,	53.5,	53.5,	0.0);		

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFault CONC ELEV FLGPOL URBAN ADJ_U*

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

(649682.1,	4291119.4,	53.3,	53.3,	0.0);	(649702.0,
4291134.6,	53.5,	53.5,	0.0);		
(649673.2,	4291163.0,	55.2,	55.2,	0.0);	(649653.3,
4291147.8,	54.5,	54.5,	0.0);		
(649633.5,	4291132.5,	53.7,	53.7,	0.0);	(649613.7,
4291117.3,	52.9,	52.9,	0.0);		
(649593.8,	4291102.1,	52.6,	52.6,	0.0);	(649574.0,
4291086.9,	52.3,	52.3,	0.0);		
(649554.1,	4291071.7,	52.2,	52.2,	0.0);	(649534.3,
4291056.5,	52.1,	52.1,	0.0);		
(649514.4,	4291041.3,	51.7,	51.7,	0.0);	(649494.6,
4291026.1,	51.7,	51.7,	0.0);		
(649474.8,	4291010.9,	52.1,	52.1,	0.0);	(649454.9,
4290995.7,	52.3,	52.3,	0.0);		
(649435.1,	4290980.5,	52.1,	52.1,	0.0);	(649415.2,
4290965.3,	51.5,	51.5,	0.0);		
(649395.4,	4290950.1,	50.5,	50.5,	0.0);	(649375.5,
4290934.9,	50.2,	50.2,	0.0);		
(649355.7,	4290919.6,	50.3,	50.3,	0.0);	(649335.9,
4290904.4,	50.5,	50.5,	0.0);		
(649316.0,	4290889.2,	50.6,	50.6,	0.0);	(649296.2,

```

4290874.0,      50.8,      50.8,      0.0);
      ( 649276.3, 4290858.8,      50.9,      50.9,      0.0);      ( 649256.5,
4290843.6,      51.0,      51.0,      0.0);
      ( 649236.6, 4290828.4,      51.4,      51.4,      0.0);      ( 649216.8,
4290813.2,      51.6,      51.6,      0.0);
      ( 649185.1, 4290793.9,      50.7,      50.7,      1.8);      ( 649699.4,
4291179.0,      56.0,      56.0,      1.8);
^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** AERMET - VERSION 19191 *** ***
*** 21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

DISTANCE	SOURCE	- - RECEPTOR LOCATION - -
(METERS)	ID	XR (METERS) YR (METERS)
		- - - - -
- - -		
	L0000009	650194.2 4291271.5
-14.43	L0000009	650195.6 4291266.8
-10.33	L0000009	650196.4 4291262.6
-6.66	L0000009	650197.8 4291257.9
-2.04	L0000009	650206.4 4291276.2
-4.41	L0000009	650208.5 4291273.2
-1.78	L0000010	650194.2 4291271.5
-4.62	L0000010	650195.6 4291266.8
-1.77	L0000010	650206.4 4291276.2
-14.94	L0000010	650208.5 4291273.2
-12.30	L0000010	650210.1 4291268.6
-7.71		

-3.53	L0000010	650212.3	4291264.6
-0.60	L0000010	650235.3	4291286.2
-17.61	L0000011	650235.3	4291286.2
-14.29	L0000011	650236.7	4291283.0
-10.85	L0000011	650238.2	4291279.8
-7.13	L0000011	650239.2	4291276.2
-3.93	L0000011	650239.7	4291273.0
-4.77	L0000011	650256.4	4291292.0
-1.93	L0000011	650258.0	4291286.8
-15.07	L0000012	650256.4	4291292.0
-10.41	L0000012	650258.0	4291286.8
-3.59	L0000012	650260.0	4291279.8
-5.15	L0004782	649216.8	4290755.2
-0.69	L0004783	649247.5	4290740.0
-7.14	L0004784	649247.5	4290740.0
-25.36	L0004848	650053.1	4291363.7
-29.29	L0004848	650066.5	4291373.5
-42.75	L0004848	650079.0	4291366.4
-10.32	L0004849	650053.1	4291363.7
-5.40	L0004850	649907.3	4291317.2
-11.94	L0004850	649903.8	4291306.5
-45.05	L0004850	649917.2	4291272.5
-21.14	L0004850	649911.8	4291301.1
-26.31	L0004850	649924.3	4291302.9
-25.36	L0004873	650053.1	4291363.7

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

10.80, 1.54, 3.09, 5.14, 8.23,

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

Year: 2014

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN
ALBEDO	REF	WS	WD	HT	REF	TA	HT							
14	01	01	1	01	-15.5	0.166	-9.000	-9.000	-999.	162.	30.3	0.05	0.69	
1.00	2.36	211.		10.1	275.4	2.0								
14	01	01	1	02	-3.4	0.079	-9.000	-9.000	-999.	56.	13.1	0.06	0.69	
1.00	1.06	188.		10.1	273.8	2.0								
14	01	01	1	03	-12.2	0.146	-9.000	-9.000	-999.	134.	23.5	0.05	0.69	
1.00	2.10	136.		10.1	275.9	2.0								
14	01	01	1	04	-23.3	0.226	-9.000	-9.000	-999.	257.	56.0	0.05	0.69	
1.00	3.15	142.		10.1	277.0	2.0								
14	01	01	1	05	-16.2	0.171	-9.000	-9.000	-999.	170.	32.2	0.06	0.69	
1.00	2.33	186.		10.1	274.9	2.0								
14	01	01	1	06	-3.0	0.076	-9.000	-9.000	-999.	55.	12.9	0.06	0.69	
1.00	0.99	204.		10.1	273.1	2.0								
14	01	01	1	07	-4.8	0.092	-9.000	-9.000	-999.	67.	14.7	0.07	0.69	
1.00	1.28	171.		10.1	272.0	2.0								
14	01	01	1	08	-1.8	0.065	-9.000	-9.000	-999.	40.	14.3	0.06	0.69	
1.00	0.67	183.		10.1	273.1	2.0								
14	01	01	1	09	-0.3	0.062	-9.000	-9.000	-999.	37.	75.4	0.06	0.69	
0.41	0.82	181.		10.1	278.1	2.0								
14	01	01	1	10	36.6	0.151	0.431	0.020	80.	141.	-8.6	0.05	0.69	
0.28	1.55	141.		10.1	280.4	2.0								
14	01	01	1	11	65.9	0.162	0.666	0.019	163.	157.	-5.9	0.07	0.69	
0.24	1.48	161.		10.1	283.1	2.0								
14	01	01	1	12	82.5	0.174	0.784	0.017	212.	175.	-5.8	0.07	0.69	
0.22	1.59	152.		10.1	285.9	2.0								
14	01	01	1	13	86.0	0.219	0.835	0.015	246.	246.	-11.1	0.07	0.69	
0.22	2.18	154.		10.1	288.1	2.0								
14	01	01	1	14	74.8	0.234	0.838	0.014	286.	272.	-15.6	0.05	0.69	
0.23	2.56	229.		10.1	288.1	2.0								
14	01	01	1	15	42.8	0.198	0.714	0.013	308.	212.	-16.5	0.06	0.69	
0.26	2.08	180.		10.1	288.8	2.0								
14	01	01	1	16	15.1	0.151	0.507	0.013	315.	141.	-20.7	0.06	0.69	
0.35	1.62	194.		10.1	288.1	2.0								
14	01	01	1	17	-9.6	0.137	-9.000	-9.000	-999.	122.	24.4	0.05	0.69	
0.61	1.96	223.		10.1	286.4	2.0								
14	01	01	1	18	-1.5	0.061	-9.000	-9.000	-999.	38.	13.6	0.04	0.69	
1.00	0.65	251.		10.1	283.8	2.0								
14	01	01	1	19	-1.5	0.058	-9.000	-9.000	-999.	34.	12.1	0.02	0.69	
1.00	0.72	47.		10.1	280.9	2.0								
14	01	01	1	20	-3.4	0.076	-9.000	-9.000	-999.	50.	11.8	0.03	0.69	
1.00	1.20	81.		10.1	278.8	2.0								
14	01	01	1	21	-2.2	0.065	-9.000	-9.000	-999.	40.	11.5	0.03	0.69	
1.00	0.91	73.		10.1	278.8	2.0								
14	01	01	1	22	-1.6	0.059	-9.000	-9.000	-999.	35.	12.0	0.02	0.69	
1.00	0.74	22.		10.1	279.2	2.0								
14	01	01	1	23	-1.9	0.063	-9.000	-9.000	-999.	38.	11.9	0.03	0.69	

1.00 0.82 60. 10.1 277.0 2.0
14 01 01 1 24 -5.1 0.090 -9.000 -9.000 -999. 65. 13.1 0.02 0.69
1.00 1.57 34. 10.1 276.4 2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.1	1	211.	2.36	275.4	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED *** 07/10/23
*** AERMET - VERSION 19191 *** ***
*** 21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002
, L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018
, L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 , . . . ,

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

**

Y-COORD (METERS)				X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20
649802.20	649814.20	649826.20	649838.20		

- - - - -
- - - - -

4291409.99	|	0.00123	0.00127	0.00131	0.00136	0.00142
0.00147		0.00153	0.00160	0.00167		
4291392.99	|	0.00127	0.00131	0.00136	0.00141	0.00147
0.00154		0.00160	0.00168	0.00176		
4291375.99	|	0.00132	0.00136	0.00141	0.00147	0.00153
0.00160		0.00168	0.00176	0.00186		
4291358.99	|	0.00137	0.00141	0.00147	0.00153	0.00160
0.00167		0.00176	0.00185	0.00196		
4291341.99	|	0.00142	0.00147	0.00153	0.00159	0.00166

0.00174	0.00184	0.00194	0.00207		
4291324.99 |	0.00148	0.00154	0.00159	0.00166	0.00174
0.00182	0.00192	0.00204	0.00218		
4291307.99 |	0.00155	0.00161	0.00167	0.00174	0.00183
0.00192	0.00202	0.00214	0.00229		
4291290.99 |	0.00162	0.00168	0.00173	0.00179	0.00188
0.00196	0.00207	0.00226	0.00243		
4291273.99 |	0.00166	0.00170	0.00177	0.00184	0.00192
0.00202	0.00218	0.00242	0.00261		
4291256.99 |	0.00173	0.00178	0.00187	0.00195	0.00204
0.00215	0.00235	0.00263	0.00286		
4291239.99 |	0.00184	0.00192	0.00202	0.00212	0.00224
0.00237	0.00259	0.00295	0.00326		

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23
 *** AERMET - VERSION 19191 *** ***
 *** 21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000001 , L0000002

, L0000003	, L0000004	, L0000005	,		
	L0000006	, L0000007	, L0000008	, L0000009	, L0000010
, L0000011	, L0000012	, L0000013	,		
	L0000014	, L0000015	, L0000016	, L0000017	, L0000018
, L0000019	, L0000020	, L0000021	,		
	L0000022	, L0000023	, L0000024	, L0000025	, L0000026
, L0000027	, L0000028	, . . .	,		

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

 **

Y-COORD	|			X-COORD (METERS)
(METERS)	|	649850.20	649862.20	

4291409.99 |	0.00174	0.00182
4291392.99 |	0.00185	0.00194
4291375.99 |	0.00196	0.00207
4291358.99 |	0.00208	0.00221
4291341.99	0.00220	0.00236
4291324.99	0.00234	0.00253
4291307.99	0.00248	0.00270

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*** AERMOD - VERSION 22112 ***      *** 3RD LEG LAYOVER CNOSTRUCTION EMISSIONS -
UNMITIGATED                        ***      07/10/23

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

VALUES FOR SOURCE GROUP: ALL

```

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

```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
650194.23	4291271.45	0.00256	650195.61
4291266.76	0.00248		
650196.44	4291262.63	0.00272	650197.82
4291257.94	0.00260		
650199.75	4291253.25	0.00286	650201.96
4291248.01	0.00268		
650204.16	4291242.49	0.00251	650205.82
4291236.70	0.00237		
650212.33	4291238.72	0.00237	650218.31
4291240.52	0.00236		
650224.69	4291242.51	0.00236	650232.67
4291245.31	0.00237		
650241.05	4291248.30	0.00238	650249.22
4291250.89	0.00239		
650256.60	4291253.68	0.00241	650266.17
4291257.07	0.00243		
650206.35	4291276.22	0.00255	650208.54

4291273.23	0.00250		
650210.14	4291268.64	0.00277	650212.33
4291264.65	0.00265		
650235.26	4291286.19	0.00260	650236.66
4291283.00	0.00288		
650238.25	4291279.81	0.00279	650239.25
4291276.22	0.00271		
650239.65	4291273.03	0.00264	650256.40
4291291.97	0.00257		
650258.00	4291286.79	0.00248	650259.99
4291279.81	0.00272		
650260.59	4291272.43	0.00288	650263.78
4291266.05	0.00266		
649381.16	4290586.76	0.00175	649394.57
4290600.17	0.00183		
649410.67	4290612.69	0.00187	649425.86
4290624.31	0.00189		
649417.82	4290633.25	0.00207	649410.67
4290643.08	0.00228		
649391.89	4290566.20	0.00149	649400.83
4290559.05	0.00141		
649406.20	4290552.79	0.00134	649414.24
4290537.59	0.00122		
649435.70	4290606.43	0.00165	649444.64
4290599.28	0.00154		
649449.11	4290591.23	0.00146	649458.05
4290584.08	0.00138		
649458.05	4290643.98	0.00185	649468.77
4290628.78	0.00163		
649481.29	4290618.95	0.00149	649497.38
4290607.32	0.00135		
649452.68	4290733.37	0.00355	649462.52
4290744.99	0.00361		
649473.24	4290753.04	0.00349	649487.55
4290761.98	0.00331		
649458.94	4290719.07	0.00299	649482.18
4290692.25	0.00215		
649496.49	4290676.16	0.00184	649494.70
4290750.36	0.00288		
649510.79	4290725.33	0.00223	649531.35
4290701.19	0.00179		
649512.58	4290658.28	0.00158	649505.43
4290620.73	0.00138		
649581.89	4290816.00	0.00298	649595.63
4290822.01	0.00281		
649605.89	4290832.53	0.00279	649616.82
4290841.57	0.00270		
649599.29	4290800.42	0.00236	649604.66
4290787.90	0.00212		
649623.43	4290818.30	0.00223	649627.90

4290802.21	0.00199			
649634.60	4290882.58	0.00288		649644.44
4290891.53	0.00273			
649657.85	4290903.15	0.00256		649662.32
4290845.92	0.00191			
649670.37	4290910.31	0.00239		649672.16
4290855.76	0.00186			
649681.10	4290918.35	0.00231		649690.04
4290926.40	0.00227			
649703.46	4290939.81	0.00226		649686.47
4290867.38	0.00177			
649698.09	4290813.73	0.00141		649718.66
4290834.29	0.00136			

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
 UNMITIGATED *** 07/10/23
 *** AERMET - VERSION 19191 *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** DISCRETE CARTESIAN RECEPTOR POINTS

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

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
649741.01	4290850.39	0.00131	649763.37
4290863.80	0.00126		
649701.67	4290877.22	0.00169	649715.08
4290890.63	0.00166		
649732.07	4290904.94	0.00163	649910.92
4290991.68	0.00137		
649928.80	4291003.31	0.00141	649945.79
4291014.04	0.00145		

649962.79	4291022.98	0.00150	650053.10
4291107.93	0.00257		
650064.73	4291089.15	0.00213	650085.30
4291104.35	0.00201		
650070.09	4291118.66	0.00237	650083.51
4291131.18	0.00225		
650146.10	4291166.06	0.00185	650157.73
4291151.75	0.00168		
650140.74	4291144.59	0.00173	650115.70
4291125.82	0.00182		
650113.91	4291149.07	0.00199	650178.30
4291183.94	0.00182		
650190.82	4291167.85	0.00164	650434.94
4291167.85	0.00150		
650417.06	4291189.31	0.00163	650401.86
4291217.03	0.00185		
650207.81	4291177.68	0.00165	650225.69
4291183.05	0.00163		
650240.89	4291188.41	0.00164	650258.78
4291195.57	0.00165		
650280.24	4291200.93	0.00166	650293.65
4291207.19	0.00170		
650315.11	4291215.24	0.00176	650333.89
4291220.60	0.00181		
650352.67	4291225.08	0.00186	650374.13
4291231.34	0.00195		
650013.76	4291462.05	0.00190	649930.59
4291369.05	0.00283		
649914.50	4291349.37	0.00306	649935.06
4291335.96	0.00378		
649907.34	4291317.18	0.00295	649919.86
4291361.00	0.00288		
649909.13	4291335.07	0.00331	649903.77
4291306.45	0.00307		
649917.18	4291272.47	0.00422	649911.81
4291301.09	0.00336		
649924.33	4291302.87	0.00367	650053.10
4291363.68	0.00175		
650066.52	4291373.52	0.00227	650079.04
4291366.37	0.00229		
649216.78	4290755.24	0.01277	649667.26
4291204.25	0.00177		
649647.43	4291189.03	0.00178	649627.60
4291173.81	0.00180		
649607.77	4291158.59	0.00184	649587.93
4291143.37	0.00192		
649568.10	4291128.14	0.00199	649548.27
4291112.92	0.00207		
649528.43	4291097.70	0.00217	649508.60
4291082.48	0.00229		

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43680
HRS) RESULTS ***

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

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID	
ALL	1ST HIGHEST VALUE IS	0.01277 AT (	649216.78, 4290755.24,
49.77,	49.77, 0.00) DC		
	2ND HIGHEST VALUE IS	0.01112 AT (	649247.52, 4290740.02,
49.72,	49.72, 0.00) DC		
	3RD HIGHEST VALUE IS	0.00877 AT (	649225.72, 4290769.65,
49.99,	49.99, 0.00) DC		
	4TH HIGHEST VALUE IS	0.00803 AT (	649185.13, 4290793.92,
50.69,	50.69, 1.80) DC		
	5TH HIGHEST VALUE IS	0.00604 AT (	649158.28, 4290816.10,
51.08,	51.08, 1.80) DC		
	6TH HIGHEST VALUE IS	0.00580 AT (	649245.57, 4290784.86,
50.06,	50.06, 0.00) DC		
	7TH HIGHEST VALUE IS	0.00499 AT (	649216.79, 4290813.20,
51.60,	51.60, 0.00) DC		
	8TH HIGHEST VALUE IS	0.00495 AT (	649182.11, 4290828.09,
51.49,	51.49, 0.00) DC		
	9TH HIGHEST VALUE IS	0.00489 AT (	649483.69, 4290967.34,
51.16,	51.16, 0.00) DC		
	10TH HIGHEST VALUE IS	0.00482 AT (	649503.53, 4290982.55,
51.21,	51.21, 0.00) DC		

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

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
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*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

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

***** WARNING MESSAGES *****
SO W320 690 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 691 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 692 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 694 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 695 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 696 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 697 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 698 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 699 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 702 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 703 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 704 VPARM: Input Parameter May Be Out-of-Range for Parameter
QS
SO W320 705 VPARM: Input Parameter May Be Out-of-Range for Parameter

QS		
SO W320	706	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	707	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	708	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	711	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	712	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	715	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	716	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	717	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	718	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	721	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	722	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	723	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	724	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	725	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
SO W320	726	VPARM: Input Parameter May Be Out-of-Range for Parameter
QS		
ME W186	752	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50		
ME W187	752	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

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

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** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/12/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
OPERATE\AERMOD LAYOVER OPERATE.ADI
**
*****
**
**
*****
** AERMOD CONTROL PATHWAY
*****
**
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER OPERATIONAL EMISSIONS
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACRAMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER OPERATE.ERR"
CO FINISHED
**
*****
** AERMOD SOURCE PATHWAY
*****
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE1
** DESCRSRC MOVING LOCOMOTIVE EMISSIONS DAYTIME
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.000567
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 11

```

** 649071.104, 4290497.431, 49.44, 5.65, 11.16
 ** 649268.354, 4290673.357, 49.69, 5.65, 11.16
 ** 649502.922, 4290855.947, 50.56, 5.65, 11.16
 ** 649722.830, 4291029.208, 51.99, 5.65, 11.16
 ** 649941.405, 4291199.803, 53.13, 5.65, 11.16
 ** 650057.356, 4291270.440, 53.57, 5.65, 11.16
 ** 650169.309, 4291326.416, 53.85, 5.65, 11.16
 ** 650298.589, 4291367.732, 53.97, 5.65, 11.16
 ** 650402.545, 4291391.722, 53.68, 5.65, 11.16
 ** 650519.829, 4291403.717, 53.88, 5.65, 11.16
 ** 650635.780, 4291414.379, 53.77, 5.65, 11.16

**

LOCATION	L0000001	VOLUME	649075.581	4290501.424	49.45
LOCATION	L0000002	VOLUME	649093.492	4290517.399	49.47
LOCATION	L0000003	VOLUME	649111.403	4290533.374	49.49
LOCATION	L0000004	VOLUME	649129.315	4290549.349	49.51
LOCATION	L0000005	VOLUME	649147.226	4290565.323	49.54
LOCATION	L0000006	VOLUME	649165.137	4290581.298	49.56
LOCATION	L0000007	VOLUME	649183.048	4290597.273	49.58
LOCATION	L0000008	VOLUME	649200.959	4290613.248	49.60
LOCATION	L0000009	VOLUME	649218.870	4290629.222	49.63
LOCATION	L0000010	VOLUME	649236.781	4290645.197	49.65
LOCATION	L0000011	VOLUME	649254.692	4290661.172	49.67
LOCATION	L0000012	VOLUME	649272.847	4290676.854	49.71
LOCATION	L0000013	VOLUME	649291.786	4290691.596	49.78
LOCATION	L0000014	VOLUME	649310.724	4290706.338	49.85
LOCATION	L0000015	VOLUME	649329.663	4290721.080	49.92
LOCATION	L0000016	VOLUME	649348.602	4290735.822	49.99
LOCATION	L0000017	VOLUME	649367.540	4290750.564	50.06
LOCATION	L0000018	VOLUME	649386.479	4290765.306	50.13
LOCATION	L0000019	VOLUME	649405.418	4290780.048	50.20
LOCATION	L0000020	VOLUME	649424.356	4290794.790	50.27
LOCATION	L0000021	VOLUME	649443.295	4290809.532	50.34
LOCATION	L0000022	VOLUME	649462.234	4290824.275	50.41
LOCATION	L0000023	VOLUME	649481.172	4290839.017	50.48
LOCATION	L0000024	VOLUME	649500.111	4290853.759	50.55
LOCATION	L0000025	VOLUME	649518.976	4290868.595	50.66
LOCATION	L0000026	VOLUME	649537.827	4290883.448	50.79
LOCATION	L0000027	VOLUME	649556.679	4290898.301	50.91
LOCATION	L0000028	VOLUME	649575.531	4290913.154	51.03
LOCATION	L0000029	VOLUME	649594.383	4290928.007	51.15
LOCATION	L0000030	VOLUME	649613.235	4290942.860	51.28
LOCATION	L0000031	VOLUME	649632.086	4290957.713	51.40
LOCATION	L0000032	VOLUME	649650.938	4290972.566	51.52
LOCATION	L0000033	VOLUME	649669.790	4290987.418	51.65
LOCATION	L0000034	VOLUME	649688.642	4291002.271	51.77
LOCATION	L0000035	VOLUME	649707.494	4291017.124	51.89
LOCATION	L0000036	VOLUME	649726.358	4291031.961	52.01
LOCATION	L0000037	VOLUME	649745.278	4291046.728	52.11
LOCATION	L0000038	VOLUME	649764.197	4291061.494	52.21

LOCATION	L0000039	VOLUME	649783.117	4291076.261	52.30
LOCATION	L0000040	VOLUME	649802.036	4291091.027	52.40
LOCATION	L0000041	VOLUME	649820.956	4291105.794	52.50
LOCATION	L0000042	VOLUME	649839.876	4291120.560	52.60
LOCATION	L0000043	VOLUME	649858.795	4291135.327	52.70
LOCATION	L0000044	VOLUME	649877.715	4291150.093	52.80
LOCATION	L0000045	VOLUME	649896.634	4291164.860	52.90
LOCATION	L0000046	VOLUME	649915.554	4291179.626	53.00
LOCATION	L0000047	VOLUME	649934.473	4291194.393	53.09
LOCATION	L0000048	VOLUME	649954.392	4291207.714	53.18
LOCATION	L0000049	VOLUME	649974.888	4291220.201	53.26
LOCATION	L0000050	VOLUME	649995.384	4291232.687	53.33
LOCATION	L0000051	VOLUME	650015.881	4291245.173	53.41
LOCATION	L0000052	VOLUME	650036.377	4291257.659	53.49
LOCATION	L0000053	VOLUME	650056.873	4291270.145	53.57
LOCATION	L0000054	VOLUME	650078.317	4291280.920	53.62
LOCATION	L0000055	VOLUME	650099.783	4291291.653	53.68
LOCATION	L0000056	VOLUME	650121.249	4291302.386	53.73
LOCATION	L0000057	VOLUME	650142.715	4291313.119	53.78
LOCATION	L0000058	VOLUME	650164.182	4291323.852	53.84
LOCATION	L0000059	VOLUME	650186.709	4291331.977	53.87
LOCATION	L0000060	VOLUME	650209.570	4291339.283	53.89
LOCATION	L0000061	VOLUME	650232.431	4291346.589	53.91
LOCATION	L0000062	VOLUME	650255.292	4291353.895	53.93
LOCATION	L0000063	VOLUME	650278.153	4291361.201	53.95
LOCATION	L0000064	VOLUME	650301.069	4291368.305	53.96
LOCATION	L0000065	VOLUME	650324.455	4291373.701	53.90
LOCATION	L0000066	VOLUME	650347.840	4291379.098	53.83
LOCATION	L0000067	VOLUME	650371.226	4291384.495	53.77
LOCATION	L0000068	VOLUME	650394.611	4291389.891	53.70
LOCATION	L0000069	VOLUME	650418.320	4291393.336	53.71
LOCATION	L0000070	VOLUME	650442.196	4291395.777	53.75
LOCATION	L0000071	VOLUME	650466.071	4291398.219	53.79
LOCATION	L0000072	VOLUME	650489.947	4291400.661	53.83
LOCATION	L0000073	VOLUME	650513.822	4291403.103	53.87
LOCATION	L0000074	VOLUME	650537.715	4291405.362	53.86
LOCATION	L0000075	VOLUME	650561.614	4291407.559	53.84
LOCATION	L0000076	VOLUME	650585.514	4291409.757	53.82
LOCATION	L0000077	VOLUME	650609.413	4291411.955	53.80
LOCATION	L0000078	VOLUME	650633.312	4291414.152	53.77
**	END OF LINE VOLUME SOURCE ID = SLINE1				
LOCATION	TRACK1	POINT	650194.910	4291379.390	55.010
**	DESCRSRC IDLE TRAIN AT LAYOVER TRACK 1				
LOCATION	TRACK2	POINT	650197.957	4291369.732	54.530
**	DESCRSRC IDLE TRAIN AT LAYOVER TRACK 2				
LOCATION	TRACK3	POINT	650200.500	4291360.080	54.260
**	DESCRSRC IDLE TRAIN AT LAYOVER TRACK 3				
LOCATION	TRACK4	POINT	650203.040	4291351.440	54.120
**	DESCRSRC IDLE TRAIN AT LAYOVER TRACK 4				
LOCATION	STCK5	POINT	650017.560	4291261.500	52.980

** DESCRSRC SMALL BACKUP 30KW DIESEL GENERATOR

** SOURCE PARAMETERS **

** LINE VOLUME SOURCE ID = SLINE1

SRCPARAM	L0000001	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000002	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000003	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000004	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000005	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000006	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000007	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000008	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000009	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000010	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000011	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000012	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000013	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000014	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000015	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000016	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000017	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000018	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000019	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000020	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000021	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000022	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000023	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000024	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000025	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000026	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000027	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000028	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000029	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000030	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000031	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000032	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000033	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000034	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000035	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000036	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000037	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000038	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000039	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000040	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000041	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000042	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000043	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000044	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000045	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000046	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000047	0.000007269	5.65	11.16	2.63

SRCPARAM	L0000048	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000049	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000050	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000051	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000052	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000053	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000054	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000055	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000056	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000057	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000058	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000059	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000060	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000061	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000062	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000063	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000064	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000065	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000066	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000067	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000068	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000069	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000070	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000071	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000072	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000073	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000074	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000075	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000076	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000077	0.000007269	5.65	11.16	2.63
SRCPARAM	L0000078	0.000007269	5.65	11.16	2.63

** -----

SRCPARAM	TRACK1	1.68E-06	4.600	739.000	90.8	0.127
SRCPARAM	TRACK2	1.68E-06	4.600	739.000	90.8	0.127
SRCPARAM	TRACK3	1.68E-06	4.600	739.000	90.8	0.127
SRCPARAM	TRACK4	1.68E-06	4.600	739.000	90.8	0.127
SRCPARAM	STCK5	2.49E-06	6.100	644.000	17.8	0.305

URBANSRC ALL

SRCGROUP ALL

SO FINISHED

**

** AERMOD RECEPTOR PATHWAY

**

**

RE STARTING

INCLUDED "AERMOD LAYOVER OPERATE.ROU"

RE FINISHED

**

** AERMOD METEOROLOGY PATHWAY

**

**

ME STARTING

SURFFILE "..\\..\\MET DATA\\14-18.SFC"

PROFFILE "..\\..\\MET DATA\\14-18.PFL"

SURFDATA 93225 2014

UAIRDATA 23230 2014 OAKLAND/WSO_AP

PROFBASE 8.0 METERS

ME FINISHED

**

** AERMOD OUTPUT PATHWAY

**

**

OU STARTING

** AUTO-GENERATED PLOTFILES

PLOTFILE PERIOD ALL "AERMOD LAYOVER OPERATE.AD\\PE00GALL.PLT" 31

FILEFORM EXP

SUMMFILE "AERMOD LAYOVER CONSTRUCT.SUM"

OU FINISHED

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

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

A Total of	0 Fatal Error Message(s)
A Total of	6 Warning Message(s)
A Total of	0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

SO W320	231	PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320	232	PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320	233	PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320	234	PPARM: Input Parameter May Be Out-of-Range for Parameter VS
ME W186	260	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

ME W187 260 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** SETUP Finishes Successfully ***

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23
*** AERMET - VERSION 19191 *** ***
 *** 12:48:12

PAGE 1
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

-- -- -- -- --
** Model Options Selected:

- * Model Uses Regulatory DEFAULT Options
- * Model Is Setup For Calculation of Average CONCentration Values.
- * NO GAS DEPOSITION Data Provided.
- * NO PARTICLE DEPOSITION Data Provided.
- * Model Uses NO DRY DEPLETION. DDPLETE = F
- * Model Uses NO WET DEPLETION. WETDPLT = F
- * Stack-tip Downwash.
- * Model Accounts for ELEVated Terrain Effects.
- * Use Calms Processing Routine.
- * Use Missing Data Processing Routine.
- * No Exponential Decay.
- * Model Uses URBAN Dispersion Algorithm for the SBL for 83 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 2500000.0 ; Urban Roughness Length = 1.000 m
- * Urban Roughness Length of 1.0 Meter Used.
- * ADJ_U* - Use ADJ_U* option for SBL in AERMET
- * CCVR_Sub - Meteorological data includes CCVR substitutions
- * TEMP_Sub - Meteorological data includes TEMP substitutions
- * Model Accepts FLAGPOLE Receptor . Heights.
- * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes: 83 Source(s); 1 Source Group(s); and 329
Receptor(s)

with: 5 POINT(s), including
 0 POINTCAP(s) and 0 POINTHOR(s)
and: 78 VOLUME source(s)

and: 0 AREA type source(s)
 and: 0 LINE source(s)
 and: 0 RLINE/RLINEXT source(s)
 and: 0 OPENPIT source(s)
 and: 0 BUOYANT LINE source(s) with a total of 0 line(s)
 and: 0 SWPOINT source(s)

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

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

NOTE: Option for EXponential format used in formatted output result files
(FILEFORM Keyword)

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay
 Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAMS/SEC ;
 Emission Rate Unit Factor = 0.10000E+07
 Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: AERMOD LAYOVER OPERATE.ERR

**File for Summary of Results: AERMOD LAYOVER CONSTRUCT.SUM

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** POINT SOURCE DATA ***

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

TRACK1	0	0.16800E-05	650194.9	4291379.4	55.0	4.60	739.00		
90.80	0.13	NO	YES	NO					
TRACK2	0	0.16800E-05	650198.0	4291369.7	54.5	4.60	739.00		
90.80	0.13	NO	YES	NO					
TRACK3	0	0.16800E-05	650200.5	4291360.1	54.3	4.60	739.00		
90.80	0.13	NO	YES	NO					
TRACK4	0	0.16800E-05	650203.0	4291351.4	54.1	4.60	739.00		
90.80	0.13	NO	YES	NO					
STCK5	0	0.24900E-05	650017.6	4291261.5	53.0	6.10	644.00		
17.80	0.31	NO	YES	NO					

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER	EMISSION	RATE	BASE	RELEASE	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR	VARY		(METERS)	(METERS)	(METERS)
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)		BY					

L0000001	0	0.72690E-05	649075.6	4290501.4	49.4	5.65	11.16
2.63	YES						
L0000002	0	0.72690E-05	649093.5	4290517.4	49.5	5.65	11.16
2.63	YES						
L0000003	0	0.72690E-05	649111.4	4290533.4	49.5	5.65	11.16

2.63	YES							
L0000004		0	0.72690E-05	649129.3	4290549.3	49.5	5.65	11.16
2.63	YES							
L0000005		0	0.72690E-05	649147.2	4290565.3	49.5	5.65	11.16
2.63	YES							
L0000006		0	0.72690E-05	649165.1	4290581.3	49.6	5.65	11.16
2.63	YES							
L0000007		0	0.72690E-05	649183.0	4290597.3	49.6	5.65	11.16
2.63	YES							
L0000008		0	0.72690E-05	649201.0	4290613.2	49.6	5.65	11.16
2.63	YES							
L0000009		0	0.72690E-05	649218.9	4290629.2	49.6	5.65	11.16
2.63	YES							
L0000010		0	0.72690E-05	649236.8	4290645.2	49.6	5.65	11.16
2.63	YES							
L0000011		0	0.72690E-05	649254.7	4290661.2	49.7	5.65	11.16
2.63	YES							
L0000012		0	0.72690E-05	649272.8	4290676.9	49.7	5.65	11.16
2.63	YES							
L0000013		0	0.72690E-05	649291.8	4290691.6	49.8	5.65	11.16
2.63	YES							
L0000014		0	0.72690E-05	649310.7	4290706.3	49.8	5.65	11.16
2.63	YES							
L0000015		0	0.72690E-05	649329.7	4290721.1	49.9	5.65	11.16
2.63	YES							
L0000016		0	0.72690E-05	649348.6	4290735.8	50.0	5.65	11.16
2.63	YES							
L0000017		0	0.72690E-05	649367.5	4290750.6	50.1	5.65	11.16
2.63	YES							
L0000018		0	0.72690E-05	649386.5	4290765.3	50.1	5.65	11.16
2.63	YES							
L0000019		0	0.72690E-05	649405.4	4290780.0	50.2	5.65	11.16
2.63	YES							
L0000020		0	0.72690E-05	649424.4	4290794.8	50.3	5.65	11.16
2.63	YES							
L0000021		0	0.72690E-05	649443.3	4290809.5	50.3	5.65	11.16
2.63	YES							
L0000022		0	0.72690E-05	649462.2	4290824.3	50.4	5.65	11.16
2.63	YES							
L0000023		0	0.72690E-05	649481.2	4290839.0	50.5	5.65	11.16
2.63	YES							
L0000024		0	0.72690E-05	649500.1	4290853.8	50.5	5.65	11.16
2.63	YES							
L0000025		0	0.72690E-05	649519.0	4290868.6	50.7	5.65	11.16
2.63	YES							
L0000026		0	0.72690E-05	649537.8	4290883.4	50.8	5.65	11.16
2.63	YES							
L0000027		0	0.72690E-05	649556.7	4290898.3	50.9	5.65	11.16
2.63	YES							
L0000028		0	0.72690E-05	649575.5	4290913.2	51.0	5.65	11.16

2.63	YES							
L0000029		0	0.72690E-05	649594.4	4290928.0	51.1	5.65	11.16
2.63	YES							
L0000030		0	0.72690E-05	649613.2	4290942.9	51.3	5.65	11.16
2.63	YES							
L0000031		0	0.72690E-05	649632.1	4290957.7	51.4	5.65	11.16
2.63	YES							
L0000032		0	0.72690E-05	649650.9	4290972.6	51.5	5.65	11.16
2.63	YES							
L0000033		0	0.72690E-05	649669.8	4290987.4	51.6	5.65	11.16
2.63	YES							
L0000034		0	0.72690E-05	649688.6	4291002.3	51.8	5.65	11.16
2.63	YES							
L0000035		0	0.72690E-05	649707.5	4291017.1	51.9	5.65	11.16
2.63	YES							
L0000036		0	0.72690E-05	649726.4	4291032.0	52.0	5.65	11.16
2.63	YES							
L0000037		0	0.72690E-05	649745.3	4291046.7	52.1	5.65	11.16
2.63	YES							
L0000038		0	0.72690E-05	649764.2	4291061.5	52.2	5.65	11.16
2.63	YES							
L0000039		0	0.72690E-05	649783.1	4291076.3	52.3	5.65	11.16
2.63	YES							
L0000040		0	0.72690E-05	649802.0	4291091.0	52.4	5.65	11.16

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

INIT.	URBAN	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.
SOURCE		EMISSION	RATE					
SZ	SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY
ID		SCALAR	VARY					
(METERS)		CATS.	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

L0000041		0	0.72690E-05	649821.0	4291105.8	52.5	5.65	11.16
2.63	YES							
L0000042		0	0.72690E-05	649839.9	4291120.6	52.6	5.65	11.16
2.63	YES							
L0000043		0	0.72690E-05	649858.8	4291135.3	52.7	5.65	11.16

2.63	YES							
L0000044		0	0.72690E-05	649877.7	4291150.1	52.8	5.65	11.16
2.63	YES							
L0000045		0	0.72690E-05	649896.6	4291164.9	52.9	5.65	11.16
2.63	YES							
L0000046		0	0.72690E-05	649915.6	4291179.6	53.0	5.65	11.16
2.63	YES							
L0000047		0	0.72690E-05	649934.5	4291194.4	53.1	5.65	11.16
2.63	YES							
L0000048		0	0.72690E-05	649954.4	4291207.7	53.2	5.65	11.16
2.63	YES							
L0000049		0	0.72690E-05	649974.9	4291220.2	53.3	5.65	11.16
2.63	YES							
L0000050		0	0.72690E-05	649995.4	4291232.7	53.3	5.65	11.16
2.63	YES							
L0000051		0	0.72690E-05	650015.9	4291245.2	53.4	5.65	11.16
2.63	YES							
L0000052		0	0.72690E-05	650036.4	4291257.7	53.5	5.65	11.16
2.63	YES							
L0000053		0	0.72690E-05	650056.9	4291270.1	53.6	5.65	11.16
2.63	YES							
L0000054		0	0.72690E-05	650078.3	4291280.9	53.6	5.65	11.16
2.63	YES							
L0000055		0	0.72690E-05	650099.8	4291291.7	53.7	5.65	11.16
2.63	YES							
L0000056		0	0.72690E-05	650121.2	4291302.4	53.7	5.65	11.16
2.63	YES							
L0000057		0	0.72690E-05	650142.7	4291313.1	53.8	5.65	11.16
2.63	YES							
L0000058		0	0.72690E-05	650164.2	4291323.9	53.8	5.65	11.16
2.63	YES							
L0000059		0	0.72690E-05	650186.7	4291332.0	53.9	5.65	11.16
2.63	YES							
L0000060		0	0.72690E-05	650209.6	4291339.3	53.9	5.65	11.16
2.63	YES							
L0000061		0	0.72690E-05	650232.4	4291346.6	53.9	5.65	11.16
2.63	YES							
L0000062		0	0.72690E-05	650255.3	4291353.9	53.9	5.65	11.16
2.63	YES							
L0000063		0	0.72690E-05	650278.2	4291361.2	53.9	5.65	11.16
2.63	YES							
L0000064		0	0.72690E-05	650301.1	4291368.3	54.0	5.65	11.16
2.63	YES							
L0000065		0	0.72690E-05	650324.5	4291373.7	53.9	5.65	11.16
2.63	YES							
L0000066		0	0.72690E-05	650347.8	4291379.1	53.8	5.65	11.16
2.63	YES							
L0000067		0	0.72690E-05	650371.2	4291384.5	53.8	5.65	11.16
2.63	YES							
L0000068		0	0.72690E-05	650394.6	4291389.9	53.7	5.65	11.16

ALL	L0000001	, L0000002	, L0000003	, L0000004	, L0000005	,
L0000006	, L0000007	, L0000008	,			
	L0000009	, L0000010	, L0000011	, L0000012	, L0000013	,
L0000014	, L0000015	, L0000016	,			
	L0000017	, L0000018	, L0000019	, L0000020	, L0000021	,
L0000022	, L0000023	, L0000024	,			
	L0000025	, L0000026	, L0000027	, L0000028	, L0000029	,
L0000030	, L0000031	, L0000032	,			
	L0000033	, L0000034	, L0000035	, L0000036	, L0000037	,

L0000038 , L0000039 , L0000040 ,
 L0000041 , L0000042 , L0000043 , L0000044 , L0000045 ,
 L0000046 , L0000047 , L0000048 ,
 L0000049 , L0000050 , L0000051 , L0000052 , L0000053 ,
 L0000054 , L0000055 , L0000056 ,
 L0000057 , L0000058 , L0000059 , L0000060 , L0000061 ,
 L0000062 , L0000063 , L0000064 ,
 L0000065 , L0000066 , L0000067 , L0000068 , L0000069 ,
 L0000070 , L0000071 , L0000072 ,
 L0000073 , L0000074 , L0000075 , L0000076 , L0000077 ,
 L0000078 , TRACK1 , TRACK2 ,

TRACK3 , TRACK4 , STCK5 ,
 *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
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 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP	SOURCE IDs
-----	-----	-----
L0000005	2500000.	L0000001 , L0000002 , L0000003 , L0000004 ,
L0000008	, L0000006 ,	, L0000007 ,
L0000014	L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,	, L0000015 , L0000016 ,
L0000022	L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,	, L0000022 , L0000023 , L0000024 ,
L0000030	L0000025 , L0000026 , L0000027 , L0000028 , L0000029 ,	, L0000030 , L0000031 , L0000032 ,
L0000038	L0000033 , L0000034 , L0000035 , L0000036 , L0000037 ,	, L0000038 , L0000039 , L0000040 ,

L0000046 L0000041 , L0000042 , L0000043 , L0000044 , L0000045 ,
 , L0000047 , L0000048 ,
 L0000054 L0000049 , L0000050 , L0000051 , L0000052 , L0000053 ,
 , L0000055 , L0000056 ,
 L0000062 L0000057 , L0000058 , L0000059 , L0000060 , L0000061 ,
 , L0000063 , L0000064 ,
 L0000070 L0000065 , L0000066 , L0000067 , L0000068 , L0000069 ,
 , L0000071 , L0000072 ,
 L0000078 L0000073 , L0000074 , L0000075 , L0000076 , L0000077 ,
 , TRACK1 , TRACK2 ,

TRACK3 , TRACK4 , STCK5 ,
 ▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
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 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2,
 649826.2, 649838.2, 649850.2,
 649862.2,

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

4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0,
 4291359.0, 4291376.0, 4291393.0,
 4291410.0,

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
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 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)					X-COORD (METERS)	
	649742.20	649754.20	649766.20	649778.20	649790.20	
649802.20	649814.20	649826.20	649838.20			

- - - - -

4291409.99	54.60	54.80	54.90	54.80	54.90
54.90	54.90	55.00	55.00		
4291392.99	54.70	54.80	54.80	54.80	54.80
54.80	54.90	54.90	55.00		
4291375.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		
4291358.99	54.80	54.90	54.90	54.90	54.90
54.90	54.90	54.90	55.00		
4291341.99	54.80	54.80	54.90	55.00	55.00
55.00	55.00	54.90	54.90		
4291324.99	54.80	54.90	55.20	55.40	55.40
55.30	55.20	55.00	54.90		
4291307.99	55.00	54.90	55.10	55.20	55.20
55.30	55.60	55.60	55.40		
4291290.99	56.10	56.20	56.50	56.80	56.70
57.00	56.80	56.10	55.50		
4291273.99	57.10	57.80	57.90	58.00	58.00
57.90	57.10	55.80	55.30		
4291256.99	57.70	58.00	57.90	58.00	58.00
58.00	57.00	55.60	55.00		
4291239.99	57.60	57.60	57.40	57.30	57.30
57.20	56.50	55.00	54.00		

▲ *** AERMOD - VERSION 22112 *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
07/12/23

*** AERMET - VERSION 19191 ***
12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	649850.20	649862.20	

- - - - -

4291409.99	1.80	1.80
4291392.99	1.80	1.80
4291375.99	1.80	1.80
4291358.99	1.80	1.80
4291341.99	1.80	1.80
4291324.99	1.80	1.80
4291307.99	1.80	1.80
4291290.99	1.80	1.80
4291273.99	1.80	1.80

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4291256.99 |          1.80          1.80
4291239.99 |          1.80          1.80
^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                     *** 07/12/23
*** AERMET - VERSION 19191 *** ***
                                     *** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

```

( 650194.2, 4291271.5, 53.3, 53.3, 1.8); ( 650195.6,
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( 650196.4, 4291262.6, 53.5, 53.5, 1.8); ( 650197.8,
4291257.9, 53.6, 53.6, 1.8);
( 650199.8, 4291253.2, 53.6, 53.6, 1.8); ( 650202.0,
4291248.0, 53.7, 53.7, 1.8);
( 650204.2, 4291242.5, 53.7, 53.7, 1.8); ( 650205.8,
4291236.7, 53.8, 53.8, 1.8);
( 650212.3, 4291238.7, 53.8, 53.8, 1.8); ( 650218.3,
4291240.5, 53.7, 53.7, 1.8);
( 650224.7, 4291242.5, 53.7, 53.7, 1.8); ( 650232.7,
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( 650241.1, 4291248.3, 53.7, 53.7, 1.8); ( 650249.2,
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( 650256.6, 4291253.7, 53.7, 53.7, 1.8); ( 650266.2,
4291257.1, 53.7, 53.7, 1.8);
( 650206.4, 4291276.2, 53.4, 53.4, 1.8); ( 650208.5,
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( 650210.1, 4291268.6, 53.5, 53.5, 1.8); ( 650212.3,
4291264.6, 53.6, 53.6, 1.8);
( 650235.3, 4291286.2, 53.6, 53.6, 1.8); ( 650236.7,
4291283.0, 53.6, 53.6, 1.8);
( 650238.2, 4291279.8, 53.6, 53.6, 1.8); ( 650239.2,
4291276.2, 53.6, 53.6, 1.8);
( 650239.7, 4291273.0, 53.6, 53.6, 1.8); ( 650256.4,
4291292.0, 53.7, 53.7, 1.8);
( 650258.0, 4291286.8, 53.7, 53.7, 1.8); ( 650260.0,
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( 650260.6, 4291272.4, 53.7, 53.7, 1.8); ( 650263.8,
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( 649381.2, 4290586.8, 50.8, 50.8, 1.8); ( 649394.6,
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( 649410.7, 4290612.7, 50.5, 50.5, 1.8); ( 649425.9,
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( 649417.8, 4290633.2, 50.5, 50.5, 1.8); ( 649410.7,
4290643.1, 50.4, 50.4, 1.8);

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(649406.2, 4290552.8,	51.5,	51.5,	1.8);	(649414.2,
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4290599.3, 50.8, 50.8,	1.8);			
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(649481.3, 4290619.0,	51.3,	51.3,	1.8);	(649497.4,
4290607.3, 51.5, 51.5,	1.8);			
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4290692.2, 50.6, 50.6,	1.8);			
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4290701.2, 50.7, 50.7,	1.8);			
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4290822.0, 50.9, 50.9,	1.8);			
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(649623.4, 4290818.3,	51.3,	51.3,	1.8);	(649627.9,
4290802.2, 51.3, 51.3,	1.8);			
(649634.6, 4290882.6,	50.9,	50.9,	1.8);	(649644.4,
4290891.5, 50.9, 50.9,	1.8);			
(649657.9, 4290903.1,	51.0,	51.0,	1.8);	(649662.3,
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(649670.4, 4290910.3,	51.1,	51.1,	1.8);	(649672.2,
4290855.8, 51.6, 51.6,	1.8);			
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(649703.5, 4290939.8,	51.1,	51.1,	1.8);	(649686.5,
4290867.4, 51.6, 51.6,	1.8);			
(649698.1, 4290813.7,	51.6,	51.6,	1.8);	(649718.7,
4290834.3, 51.6, 51.6,	1.8);			
(649741.0, 4290850.4,	51.7,	51.7,	1.8);	(649763.4,
4290863.8, 51.7, 51.7,	1.8);			
(649701.7, 4290877.2,	51.7,	51.7,	1.8);	(649715.1,
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 (649962.8, 4291023.0, 52.7, 52.7, 1.8); (650053.1,
 4291107.9, 52.5, 52.5, 1.8);

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23

*** AERMET - VERSION 19191 *** ***
 *** 12:48:12

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*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

(650064.7, 4291089.1, 52.7, 52.7, 1.8); (650085.3,
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(649924.3, 4291302.9,	53.8,	53.8,	1.8);	(650053.1,
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(649285.2, 4290815.3,	50.0,	50.0,	0.0);	(649305.1,
4290830.5, 50.0,	50.0,	0.0);		
(649324.9, 4290845.7,	50.0,	50.0,	0.0);	(649344.8,
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(649523.4, 4290997.8,	51.1,	51.1,	0.0);	(649543.2,
4291013.0, 51.3,	51.3,	0.0);		

Profile format: FREE

Upper air station no.: 23230

Name :

Year: 2014

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN
ALBEDO	REF	WS	WD	HT	REF	TA	HT							

14	01	01	1	01	-15.5	0.166	-9.000	-9.000	-999.	162.	30.3	0.05	0.69
1.00		2.36	211.		10.1	275.4	2.0						
14	01	01	1	02	-3.4	0.079	-9.000	-9.000	-999.	56.	13.1	0.06	0.69
1.00		1.06	188.		10.1	273.8	2.0						
14	01	01	1	03	-12.2	0.146	-9.000	-9.000	-999.	134.	23.5	0.05	0.69
1.00		2.10	136.		10.1	275.9	2.0						
14	01	01	1	04	-23.3	0.226	-9.000	-9.000	-999.	257.	56.0	0.05	0.69
1.00		3.15	142.		10.1	277.0	2.0						
14	01	01	1	05	-16.2	0.171	-9.000	-9.000	-999.	170.	32.2	0.06	0.69
1.00		2.33	186.		10.1	274.9	2.0						
14	01	01	1	06	-3.0	0.076	-9.000	-9.000	-999.	55.	12.9	0.06	0.69
1.00		0.99	204.		10.1	273.1	2.0						
14	01	01	1	07	-4.8	0.092	-9.000	-9.000	-999.	67.	14.7	0.07	0.69
1.00		1.28	171.		10.1	272.0	2.0						
14	01	01	1	08	-1.8	0.065	-9.000	-9.000	-999.	40.	14.3	0.06	0.69
1.00		0.67	183.		10.1	273.1	2.0						
14	01	01	1	09	-0.3	0.062	-9.000	-9.000	-999.	37.	75.4	0.06	0.69
0.41		0.82	181.		10.1	278.1	2.0						
14	01	01	1	10	36.6	0.151	0.431	0.020	80.	141.	-8.6	0.05	0.69
0.28		1.55	141.		10.1	280.4	2.0						
14	01	01	1	11	65.9	0.162	0.666	0.019	163.	157.	-5.9	0.07	0.69
0.24		1.48	161.		10.1	283.1	2.0						
14	01	01	1	12	82.5	0.174	0.784	0.017	212.	175.	-5.8	0.07	0.69
0.22		1.59	152.		10.1	285.9	2.0						
14	01	01	1	13	86.0	0.219	0.835	0.015	246.	246.	-11.1	0.07	0.69
0.22		2.18	154.		10.1	288.1	2.0						
14	01	01	1	14	74.8	0.234	0.838	0.014	286.	272.	-15.6	0.05	0.69
0.23		2.56	229.		10.1	288.1	2.0						
14	01	01	1	15	42.8	0.198	0.714	0.013	308.	212.	-16.5	0.06	0.69
0.26		2.08	180.		10.1	288.8	2.0						
14	01	01	1	16	15.1	0.151	0.507	0.013	315.	141.	-20.7	0.06	0.69
0.35		1.62	194.		10.1	288.1	2.0						
14	01	01	1	17	-9.6	0.137	-9.000	-9.000	-999.	122.	24.4	0.05	0.69
0.61		1.96	223.		10.1	286.4	2.0						
14	01	01	1	18	-1.5	0.061	-9.000	-9.000	-999.	38.	13.6	0.04	0.69
1.00		0.65	251.		10.1	283.8	2.0						

14	01	01	1	19	-1.5	0.058	-9.000	-9.000	-999.	34.	12.1	0.02	0.69
1.00				47.	10.1	280.9	2.0						
14	01	01	1	20	-3.4	0.076	-9.000	-9.000	-999.	50.	11.8	0.03	0.69
1.00				81.	10.1	278.8	2.0						
14	01	01	1	21	-2.2	0.065	-9.000	-9.000	-999.	40.	11.5	0.03	0.69
1.00				73.	10.1	278.8	2.0						
14	01	01	1	22	-1.6	0.059	-9.000	-9.000	-999.	35.	12.0	0.02	0.69
1.00				22.	10.1	279.2	2.0						
14	01	01	1	23	-1.9	0.063	-9.000	-9.000	-999.	38.	11.9	0.03	0.69
1.00				60.	10.1	277.0	2.0						
14	01	01	1	24	-5.1	0.090	-9.000	-9.000	-999.	65.	13.1	0.02	0.69
1.00				34.	10.1	276.4	2.0						

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.1	1	211.	2.36	275.4	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112 ***
 *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 07/12/23
 *** AERMET - VERSION 19191 ***
 12:48:12

PAGE 19

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION
 VALUES FOR SOURCE GROUP: ALL
 INCLUDING SOURCE(S): L0000001 , L0000002
 , L0000003 , L0000004 , L0000005 ,
 L0000006 , L0000007 , L0000008 , L0000009 , L0000010
 , L0000011 , L0000012 , L0000013 ,
 L0000014 , L0000015 , L0000016 , L0000017 , L0000018
 , L0000019 , L0000020 , L0000021 ,
 L0000022 , L0000023 , L0000024 , L0000025 , L0000026
 , L0000027 , L0000028 , . . . ,

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

**

Y-COORD (METERS)	X-COORD (METERS)
649802.20	649742.20
649814.20	649754.20
649826.20	649766.20
649838.20	649778.20
	649790.20

4291409.99	|	0.00240	0.00245	0.00250	0.00256	0.00262
0.00268		0.00274	0.00281	0.00288		
4291392.99	|	0.00250	0.00256	0.00262	0.00268	0.00274
0.00281		0.00288	0.00296	0.00303		
4291375.99	|	0.00261	0.00267	0.00274	0.00281	0.00288
0.00295		0.00303	0.00312	0.00320		
4291358.99	|	0.00273	0.00280	0.00287	0.00295	0.00303
0.00311		0.00320	0.00329	0.00339		
4291341.99	|	0.00287	0.00294	0.00302	0.00310	0.00319
0.00328		0.00338	0.00349	0.00360		
4291324.99	|	0.00301	0.00309	0.00317	0.00326	0.00336
0.00347		0.00358	0.00371	0.00384		
4291307.99	|	0.00317	0.00326	0.00336	0.00346	0.00357
0.00368		0.00379	0.00392	0.00407		
4291290.99	|	0.00329	0.00339	0.00348	0.00357	0.00370
0.00381		0.00396	0.00416	0.00437		
4291273.99	|	0.00342	0.00349	0.00359	0.00370	0.00383
0.00398		0.00420	0.00449	0.00472		
4291256.99	|	0.00358	0.00368	0.00381	0.00394	0.00408
0.00424		0.00452	0.00486	0.00515		
4291239.99	|	0.00381	0.00394	0.00411	0.00428	0.00445
0.00464		0.00494	0.00535	0.00575		

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23

*** AERMET - VERSION 19191 *** ***
 *** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** NETWORK ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

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

**

Y-COORD	|		X-COORD (METERS)
(METERS)	|	649850.20 649862.20	

- - - - -

4291409.99	0.00295	0.00302
4291392.99	0.00311	0.00319
4291375.99	0.00328	0.00338
4291358.99	0.00349	0.00359
4291341.99	0.00371	0.00383
4291324.99	0.00397	0.00412
4291307.99	0.00426	0.00445
4291290.99	0.00457	0.00481
4291273.99	0.00495	0.00524
4291256.99	0.00541	0.00577
4291239.99	0.00607	0.00644

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
*** 07/12/23
*** AERMET - VERSION 19191 *** ***
*** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** DISCRETE CARTESIAN RECEPTOR POINTS

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

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
650194.23	4291271.45	0.00594	650195.61
4291266.76	0.00566		
650196.44	4291262.63	0.00542	650197.82
4291257.94	0.00518		
650199.75	4291253.25	0.00495	650201.96
4291248.01	0.00472		
650204.16	4291242.49	0.00450	650205.82
4291236.70	0.00429		

650212.33	4291238.72	0.00427	650218.31
4291240.52	0.00426		
650224.69	4291242.51	0.00425	650232.67
4291245.31	0.00425		
650241.05	4291248.30	0.00425	650249.22
4291250.89	0.00425		
650256.60	4291253.68	0.00425	650266.17
4291257.07	0.00425		
650206.35	4291276.22	0.00593	650208.54
4291273.23	0.00572		
650210.14	4291268.64	0.00546	650212.33
4291264.65	0.00523		
650235.26	4291286.19	0.00592	650236.66
4291283.00	0.00572		
650238.25	4291279.81	0.00553	650239.25
4291276.22	0.00534		
650239.65	4291273.03	0.00518	650256.40
4291291.97	0.00582		
650258.00	4291286.79	0.00552	650259.99
4291279.81	0.00516		
650260.59	4291272.43	0.00484	650263.78
4291266.05	0.00457		
649381.16	4290586.76	0.00301	649394.57
4290600.17	0.00307		
649410.67	4290612.69	0.00309	649425.86
4290624.31	0.00310		
649417.82	4290633.25	0.00334	649410.67
4290643.08	0.00364		
649391.89	4290566.20	0.00262	649400.83
4290559.05	0.00247		
649406.20	4290552.79	0.00237	649414.24
4290537.59	0.00219		
649435.70	4290606.43	0.00275	649444.64
4290599.28	0.00260		
649449.11	4290591.23	0.00248	649458.05
4290584.08	0.00235		
649458.05	4290643.98	0.00304	649468.77
4290628.78	0.00273		
649481.29	4290618.95	0.00252	649497.38
4290607.32	0.00230		
649452.68	4290733.37	0.00539	649462.52
4290744.99	0.00555		
649473.24	4290753.04	0.00556	649487.55
4290761.98	0.00549		
649458.94	4290719.07	0.00469	649482.18
4290692.25	0.00356		
649496.49	4290676.16	0.00310	649494.70
4290750.36	0.00483		
649510.79	4290725.33	0.00380	649531.35
4290701.19	0.00310		

649512.58	4290658.28	0.00271	649505.43
4290620.73	0.00237		
649581.89	4290816.00	0.00478	649595.63
4290822.01	0.00463		
649605.89	4290832.53	0.00471	649616.82
4290841.57	0.00473		
649599.29	4290800.42	0.00397	649604.66
4290787.90	0.00361		
649623.43	4290818.30	0.00394	649627.90
4290802.21	0.00354		
649634.60	4290882.58	0.00579	649644.44
4290891.53	0.00586		
649657.85	4290903.15	0.00591	649662.32
4290845.92	0.00387		
649670.37	4290910.31	0.00578	649672.16
4290855.76	0.00393		
649681.10	4290918.35	0.00578	649690.04
4290926.40	0.00584		
649703.46	4290939.81	0.00599	649686.47
4290867.38	0.00395		
649698.09	4290813.73	0.00291	649718.66
4290834.29	0.00297		

*** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23
 *** AERMET - VERSION 19191 *** ***
 *** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

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

*** DISCRETE CARTESIAN RECEPTOR POINTS

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

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		

- - - - -				
649741.01	4290850.39	0.00296	649763.37	
4290863.80	0.00292			
649701.67	4290877.22	0.00390	649715.08	
4290890.63	0.00398			
649732.07	4290904.94	0.00403	649910.92	
4290991.68	0.00313			
649928.80	4291003.31	0.00308	649945.79	
4291014.04	0.00304			
649962.79	4291022.98	0.00299	650053.10	
4291107.93	0.00333			
650064.73	4291089.15	0.00294	650085.30	
4291104.35	0.00296			
650070.09	4291118.66	0.00332	650083.51	
4291131.18	0.00338			
650146.10	4291166.06	0.00332	650157.73	
4291151.75	0.00300			
650140.74	4291144.59	0.00303	650115.70	
4291125.82	0.00298			
650113.91	4291149.07	0.00334	650178.30	
4291183.94	0.00335			
650190.82	4291167.85	0.00299	650434.94	
4291167.85	0.00199			
650417.06	4291189.31	0.00222	650401.86	
4291217.03	0.00256			
650207.81	4291177.68	0.00301	650225.69	
4291183.05	0.00298			
650240.89	4291188.41	0.00296	650258.78	
4291195.57	0.00296			
650280.24	4291200.93	0.00292	650293.65	
4291207.19	0.00294			
650315.11	4291215.24	0.00295	650333.89	
4291220.60	0.00293			
650352.67	4291225.08	0.00289	650374.13	
4291231.34	0.00287			
650013.76	4291462.05	0.00343	649930.59	
4291369.05	0.00408			
649914.50	4291349.37	0.00428	649935.06	
4291335.96	0.00492			
649907.34	4291317.18	0.00499	649919.86	
4291361.00	0.00412			
649909.13	4291335.07	0.00455	649903.77	
4291306.45	0.00524			
649917.18	4291272.47	0.00680	649911.81	
4291301.09	0.00555			
649924.33	4291302.87	0.00577	650053.10	
4291363.68	0.00580			
650066.52	4291373.52	0.00575	650079.04	
4291366.37	0.00628			
649216.78	4290755.24	0.00568	649667.26	

4291204.25	0.00371		
649647.43	4291189.03	0.00368	649627.60
4291173.81	0.00367		
649607.77	4291158.59	0.00371	649587.93
4291143.37	0.00378		
649568.10	4291128.14	0.00378	649548.27
4291112.92	0.00375		
649528.43	4291097.70	0.00372	649508.60
4291082.48	0.00374		
649488.77	4291067.26	0.00375	649468.94
4291052.04	0.00372		
649449.10	4291036.82	0.00366	649429.27
4291021.60	0.00367		
649409.44	4291006.38	0.00371	649389.61
4290991.16	0.00370		
649358.62	4290967.62	0.00367	649339.01
4290952.12	0.00366		
649319.40	4290936.61	0.00364	649299.79
4290921.11	0.00362		
649280.17	4290905.61	0.00359	649260.56
4290890.10	0.00356		
649240.95	4290874.60	0.00352	649221.34
4290859.10	0.00348		
649201.72	4290843.59	0.00344	649182.11
4290828.09	0.00340		
649158.28	4290816.10	0.00319	649684.20
4291223.82	0.00357		
649247.52	4290740.02	0.00752	649225.72
4290769.65	0.00548		
649245.57	4290784.86	0.00555	649265.41
4290800.06	0.00560		

^ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23
 *** AERMET - VERSION 19191 *** ***
 *** 12:48:12

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*** MODELOPTs: RegDFault CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION

 VALUES FOR SOURCE GROUP: ALL INCLUDING SOURCE(S): L0000001 , L0000002
 , L0000003 , L0000004 , L0000005 , , L0000008 , L0000009 , L0000010
 , L0000011 , L0000012 , L0000013 , , L0000016 , L0000017 , L0000018
 , L0000019 , L0000020 , L0000021 , , L0000024 , L0000025 , L0000026
 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

**		** CONC OF DPM	IN MICROGRAMS/M**3
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
649285.25	4290815.27	0.00564	649305.10
4290830.48	0.00568		
649324.94	4290845.68	0.00570	649344.78
4290860.89	0.00572		
649364.63	4290876.10	0.00574	649384.47
4290891.31	0.00577		
649404.31	4290906.51	0.00578	649424.16
4290921.72	0.00582		
649444.00	4290936.93	0.00584	649463.84
4290952.13	0.00586		
649483.69	4290967.34	0.00588	649503.53
4290982.55	0.00590		
649523.37	4290997.75	0.00592	649543.21
4291012.96	0.00594		
649563.06	4291028.17	0.00596	649582.90
4291043.37	0.00598		
649602.74	4291058.58	0.00599	649622.59
4291073.79	0.00600		
649642.43	4291088.99	0.00600	649662.27
4291104.20	0.00593		
649682.12	4291119.41	0.00598	649701.96
4291134.62	0.00599		
649673.19	4291162.96	0.00451	649653.34
4291147.75	0.00455		
649633.50	4291132.55	0.00458	649613.66
4291117.34	0.00461		
649593.81	4291102.13	0.00461	649573.97
4291086.92	0.00460		
649554.13	4291071.72	0.00459	649534.28
4291056.51	0.00457		
649514.44	4291041.30	0.00456	649494.60
4291026.10	0.00455		
649474.75	4291010.89	0.00452	649454.91
4290995.68	0.00449		
649435.07	4290980.48	0.00448	649415.22
4290965.27	0.00448		
649395.38	4290950.06	0.00447	649375.54
4290934.86	0.00445		
649355.70	4290919.65	0.00443	649335.85
4290904.44	0.00441		

649316.01	4290889.24	0.00439	649296.17
4290874.03	0.00436		
649276.32	4290858.82	0.00432	649256.48
4290843.61	0.00429		
649236.64	4290828.41	0.00422	649216.79
4290813.20	0.00415		
649185.13	4290793.92	0.00389	649699.43
4291179.00	0.00437		

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
 *** 07/12/23
 *** AERMET - VERSION 19191 *** ***
 *** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43680
 HRS) RESULTS ***

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

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG)	OF TYPE GRID-ID		
ALL	1ST HIGHEST VALUE IS	0.00752 AT (	649247.52, 4290740.02,
49.72,	49.72, 0.00) DC		
	2ND HIGHEST VALUE IS	0.00680 AT (	649917.18, 4291272.47,
53.51,	53.51, 1.80) DC		
	3RD HIGHEST VALUE IS	0.00644 AT (	649862.20, 4291239.99,
53.70,	53.70, 1.80) GC ROSEHIGH		
	4TH HIGHEST VALUE IS	0.00628 AT (	650079.04, 4291366.37,
56.37,	56.37, 1.80) DC		
	5TH HIGHEST VALUE IS	0.00607 AT (	649850.20, 4291239.99,
53.90,	53.90, 1.80) GC ROSEHIGH		
	6TH HIGHEST VALUE IS	0.00600 AT (	649642.43, 4291088.99,
52.59,	52.59, 0.00) DC		
	7TH HIGHEST VALUE IS	0.00600 AT (	649622.59, 4291073.79,
52.18,	52.18, 0.00) DC		
	8TH HIGHEST VALUE IS	0.00599 AT (	649703.46, 4290939.81,
51.07,	51.07, 1.80) DC		
	9TH HIGHEST VALUE IS	0.00599 AT (	649602.74, 4291058.58,
51.83,	51.83, 0.00) DC		
	10TH HIGHEST VALUE IS	0.00599 AT (	649701.96, 4291134.62,
53.47,	53.47, 0.00) DC		

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

▲ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
*** 07/12/23
*** AERMET - VERSION 19191 *** ***
*** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

A Total of 0 Fatal Error Message(s)
A Total of 6 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

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

***** WARNING MESSAGES *****
SO W320 231 PPARM: Input Parameter May Be Out-of-Range for Parameter
VS
SO W320 232 PPARM: Input Parameter May Be Out-of-Range for Parameter
VS
SO W320 233 PPARM: Input Parameter May Be Out-of-Range for Parameter
VS
SO W320 234 PPARM: Input Parameter May Be Out-of-Range for Parameter
VS
ME W186 260 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50
ME W187 260 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** AERMOD Finishes Successfully ***

*HARP - HRACalc v22118 7/12/2023 1:40:57 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO DETAILS	INH_RISK
2			9901	DieselExhF	0.0075	6.49E-06	30YrCance *	6.49E-06

[illegible]

EGG_RISK	1ST_DRIVE	2ND_DRIV	PASTURE_	FISH_CON	WATER_CONC
0.00E+00	INHALATION		0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v22118 7/12/2023 3:27:05 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO DETAILS	INH_RISK
1			9901	DieselExhF	0.0054	9.60E-07	1YrCancer *	9.60E-07

ento Third Rail\2023 update\ aermod Layover constuct\HARP\HARP output\thrd layover consrct miigatedHRA
SOIL_RISK DERMAL_F MMILK_RI WATER_RI FISH_RISK CROP_RISI BEEF_RISK DAIRY_RIS PIG_RISK CHICKEN_I
0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

Input.hra

EGG_RISK	1ST_DRIVE	2ND_DRIV	PASTURE_	FISH_CON	WATER_CONC
----------	-----------	----------	----------	----------	------------

0.00E+00	INHALATION		0.00E+00	0.00E+00	0.00E+00
----------	------------	--	----------	----------	----------

*HARP - HRACalc v22118 7/18/2023 4:57:17 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO DETAILS	INH_RISK
1			9901	DieselExhF	0.0127	2.26E-06	1YrCancer *	2.26E-06

ento Third Rail\2023 update\ aermod Layover constuct\HARP\HARP output\thrd layover consrct unmiigatedH
SOIL_RISK DERMAL_F MMILK_RI WATER_RI FISH_RISK CROP_RISI BEEF_RISK DAIRY_RIS PIG_RISK CHICKEN_I
0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

RAInput.hra

EGG_RISK	1ST_DRIVE	2ND_DRIV	PASTURE_	FISH_CON	WATER_CONC
0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00