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Tables

Table 2-1. National and State (California) Ambient Air Quality Standards
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Pollutant	Averaging Time	NAAQS ¹		CAAQS ²
		Primary	Secondary	
Ozone (O ₃)	1-Hour	-	-	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm	0.07 ppm
Carbon Monoxide (CO)	1-Hour	35 ppm	-	20 ppm
	8-Hour	9 ppm	-	9 ppm
Nitrogen Dioxide (NO ₂)	1-Hour	0.100 ppm	-	0.18 ppm
	Annual	0.053 ppm	0.053 ppm	0.03 ppm
Sulfur Dioxide (SO ₂)	1-Hour	0.075 ppm	-	0.25 ppm
	3-Hour	-	0.5 ppm	-
	24-Hour	0.14 ppm	-	0.04 ppm
	Annual	0.03 ppm	-	-
Inhalable Particulate Matter (PM ₁₀)	24-Hour	150 µg/m ³	150 µg/m ³	50 µg/m ³
	Annual	-	-	20 µg/m ³
Fine Particulate Matter (PM _{2.5})	24-Hour	35 µg/m ³	35 µg/m ³	-
	Annual	12 µg/m ³	15 µg/m ³	12 µg/m ³
Sulfates	24-Hour	-	-	25 µg/m ³
Lead (Pb)	30-day	-	-	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	1.5 µg/m ³	-
	Rolling 3-Month Average	0.15 µg/m ³	0.15 µg/m ³	-
Hydrogen Sulfide	10-Hour	-	-	0.03 ppm
Vinyl Chloride	24-Hour	-	-	0.01 ppm

Notes:

¹The NAAQS, other than O₃ and those based on annual averages, are not to be exceeded more than once a year.

²CAAQS for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, and PM_{2.5} are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

Abbreviations:

µg - 10⁻⁶ gram

CAAQS - California Ambient Air Quality Standards

m³ - cubic meter

NAAQS - National Ambient Air Quality Standards

ppm - parts per million by volume

Source:

California Air Resources Board (2016), Ambient Air Quality Standards.

Available at: <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf>. Accessed: March 2022

Table 5-1. Summary of Air Quality and Greenhouse Gas Assessments Performed
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Types of Activities/Sources	Types of Emissions ¹	Pollutants	Analysis
<u>Construction activities that produce air emissions:</u> Construction equipment, worker trips, vendor trips, haul truck trips, material movement, and paving activities.	Engine exhaust Evaporative Fugitive dust	CAPs: • CO • NO _x • VOCs • PM _{2.5} • PM ₁₀ • SO _x	Emission quantification
		GHGs: • CO ₂ • CH ₄ • N ₂ O	Emission quantification
<u>Operational activities that produce air emissions:</u> reduction in mobile vehicle miles travelled and consumption of electricity for electric rail line.	Engine exhaust Evaporative Tire wear Brake wear Re-entrained road dust	CAPs	Qualitative analysis
		CO	Quantitative CO Hotspot Analysis
		GHGs: • CO ₂ • CH ₄ • N ₂ O	Semi-quantitative analysis

Notes:

¹ Different emission sources produce different combinations of pollutants listed in the table above.

Abbreviations:

CH₄ - methane

CO - carbon monoxide

CO₂ - carbon dioxide

N₂O - nitrous oxide

NO_x - oxides of nitrogen

PM₁₀ - particulate matter with diameter less than 10 µm

PM_{2.5} - particulate matter with diameter smaller than 2.5 µm

SO_x - oxides of sulfur

VOCs - volatile organic compounds

Table 5-2. Construction Schedule Assumptions
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name ¹	Air District	Start Date ¹	End Date ¹	Duration ² (days)
Segment 1	Demolition	MDAQMD	3/1/2022	7/1/2022	106
Segment 1	Site Preparation	MDAQMD	3/1/2022	7/1/2022	106
Segment 1	Grading	MDAQMD	5/1/2023	10/1/2024	446
Segment 1	Building Construction	MDAQMD	3/1/2022	5/1/2024	680
Segment 1	Paving	MDAQMD	4/1/2023	5/1/2023	26
Segment 2	Demolition	MDAQMD	7/1/2022	11/1/2022	106
Segment 2	Site Preparation	MDAQMD	7/1/2022	11/1/2022	106
Segment 2	Grading	MDAQMD	7/1/2023	10/1/2024	393
Segment 2	Building Construction	MDAQMD	7/1/2022	4/1/2024	549
Segment 2	Paving	MDAQMD	7/1/2022	2/1/2024	498
Segment 3	Demolition	MDAQMD	7/1/2023	2/1/2025	499
Segment 3	Site Preparation	MDAQMD	7/1/2022	11/1/2022	106
Segment 3	Grading	MDAQMD	7/1/2023	10/1/2025	706
Segment 3	Building Construction	MDAQMD	6/1/2023	10/1/2024	419
Segment 3	Paving	MDAQMD	7/1/2023	3/1/2025	523
Segment 4	Demolition	MDAQMD and SCAQMD	7/1/2023	1/1/2024	158
Segment 4	Site Preparation	MDAQMD and SCAQMD	7/1/2023	1/1/2024	158
Segment 4	Grading	MDAQMD and SCAQMD	7/1/2023	2/1/2025	499
Segment 4	Building Construction	MDAQMD and SCAQMD	7/1/2023	7/1/2024	314
Segment 4	Paving	MDAQMD and SCAQMD	7/1/2023	2/1/2024	185
Segment 5	Demolition	SCAQMD	8/1/2022	12/1/2022	106
Segment 5	Site Preparation	SCAQMD	8/1/2022	12/1/2022	106
Segment 5	Grading	SCAQMD	6/1/2023	12/1/2024	471
Segment 5	Building Construction	SCAQMD	8/1/2022	5/1/2024	549
Segment 5	Paving	SCAQMD	8/1/2022	4/1/2023	210
Segment 6	Demolition	SCAQMD	5/1/2022	9/1/2022	106
Segment 6	Site Preparation	SCAQMD	5/1/2022	9/1/2022	106
Segment 6	Grading	SCAQMD	5/1/2022	1/1/2024	523
Segment 6	Building Construction	SCAQMD	5/1/2022	11/1/2023	471
Segment 6	Paving	SCAQMD	5/1/2022	1/1/2023	210
Segment 7	Demolition	SCAQMD	4/1/2022	12/1/2022	210
Segment 7	Site Preparation	SCAQMD	4/1/2022	12/1/2022	210
Segment 7	Grading	SCAQMD	6/1/2023	10/1/2024	419
Segment 7	Building Construction	SCAQMD	4/1/2022	1/1/2025	863
Segment 7	Paving	SCAQMD	12/1/2023	3/1/2024	79

Notes:

¹ Construction phases and duration are based on Project-specific estimates. This schedule was based on a start date of 3/1/22 and will be adjusted accordingly depending upon the actual start date.

² The construction work week was assumed to be 6 days per week.

Abbreviations:

MDAQMD - Mojave Desert Air Quality Management District

SCAQMD - South Coast Air Quality Management District

Table 5-3. Construction Equipment Mix Assumptions

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Phase Name	Equipment Type	CalEEMod [®] Equipment Type	Construction Segment 1		Construction Segment 2		Construction Segment 3		Construction Segment 4	
			Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²
Demolition	Cat 966 Loader	Rubber Tired Loaders	1	4	1	4	1	8	1	8
	Cat 336 Excavator	Excavators	1	6	1	6	1	8	1	8
	Pavement saw	Concrete/Industrial Saws	1	8	1	8	2	8	2	8
	12' wide cold planer	Surfacing Equipment	1	2	1	2	1	2	1	2
	3/4 tn pickup	Off-Highway Trucks	3	4	3	4	5	4	5	4
	4000 gallon water truck	Off-Highway Trucks	2	8	2	8	2	8	2	8
	Rubber tired backhoe	Tractors/Loaders/Backhoes	1	4	1	4	2	4	2	4
	185 Compressor	Air Compressors	1	8	1	8	2	8	2	8
	Generator	Generator Sets	1	8	1	8	1	8	1	8
Site Preparation	3/4 tn pickup	Off-Highway Trucks	2	4	2	4	2	4	2	4
	Rubber tired backhoe	Tractors/Loaders/Backhoes	1	4	1	4	1	4	1	4
	Skiploader	Tractors/Loaders/Backhoes	1	4	1	4	1	4	1	4
	4000 gal water truck	Off-Highway Trucks	2	8	2	8	2	8	2	8
Grading	D-6 dozer	Rubber Tired Dozers	1	6	1	6	1	4	1	2
	349 excavator	Excavators	1	6	1	6	1	8	1	8
	3/4 tn pickup	Off-Highway Trucks	8	4	8	4	8	4	10	4
	4000 gal water truck	Off-Highway Trucks	4	4	4	4	6	4	6	4
	Cat 14 motor grader	Graders	2	6	1	6	1	8	2	6
	Cat 623 scraper	Scrapers	1	4	1	6	1	6	2	4
	Skiploader	Tractors/Loaders/Backhoes	1	8	1	8	1	8	1	8
	Rubber tired backhoe	Tractors/Loaders/Backhoes	1	8	1	8	1	8	1	8
	Telehandler	Aerial Lifts	1	8	1	8	1	8	1	8

Table 5-3. Construction Equipment Mix Assumptions

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Phase Name	Equipment Type	CalEEMod [®] Equipment Type	Construction Segment 1		Construction Segment 2		Construction Segment 3		Construction Segment 4	
			Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²
Building Construction	80 tn RT crane	Cranes	1	8	1	8	1	6	1	8
	150 tn RT crane	Cranes	1	4	1	4	0	8	1	4
	80' manlift	Aerial Lifts	1	8	1	8	1	4	1	8
	Material handler (forklift)	Forklifts	2	8	3	8	2	8	3	8
	3/4 tn pickup	Off-Highway Trucks	5	4	5	4	4	4	6	4
	1 tn pickup	Off-Highway Trucks	5	4	5	4	4	4	6	4
	16' flatbed truck	Off-Highway Trucks	1	8	1	8	1	8	1	8
	300 tn crawler crane	Cranes		8	1	4	0	8	0	8
	Compressor	Air Compressors	2	8	2	8	1	8	2	8
	Generator	Generator Sets	5	8	5	8	4	8	6	8
	Concrete pump (various sizes)	Pumps	1	1	1	1	1	1	1	1
Paving	Asphalt paver	Pavers	1	4	1	2	1	2	1	2
	Asphalt pickup machine	Paving Equipment	1	4	1	2	1	2	1	2
	Concrete paver	Pavers	1	4	1	4	1	4	1	4
	Concrete unloader	Other Material Handling Equipment	1	4	1	4	1	4	1	4
	3/4 tn pickup	Off-Highway Trucks	4	2	4	2	4	2	4	2
	1 tn pickup	Off-Highway Trucks	2	2	2	2	2	2	2	2
	Compressor	Air Compressors	1	2	1	2	1	2	1	2
	Generator	Generator Sets	1	2	1	2	1	2	1	2
	Asphalt roller	Rollers	3	4	3	2	3	5	3	2
	Skiploader	Tractors/Loaders/Backhoes	2	4	2	2	2	2	2	2

Table 5-3. Construction Equipment Mix Assumptions

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Phase Name	Equipment Type	CalEEMod [®] Equipment Type	Construction Segment 5		Construction Segment 6		Construction Segment 7	
			Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²
Demolition	Cat 966 Loader	Rubber Tired Loaders	1	8	2	6	1	4
	Cat 336 Excavator	Excavators	1	8	2	6	1	8
	Pavement saw	Concrete/Industrial Saws	2	8	2	8	2	8
	12' wide cold planer	Surfacing Equipment	1	2	1	3	1	2
	3/4 tn pickup	Off-Highway Trucks	5	4	8	4	5	4
	4000 gallon water truck	Off-Highway Trucks	2	8	3	8	2	8
	Rubber tired backhoe	Tractors/Loaders/Backhoes	2	4	3	4	2	4
	185 Compressor	Air Compressors	2	8	2	8	2	8
	Generator	Generator Sets	1	8	1	8	1	8
Site Preparation	3/4 tn pickup	Off-Highway Trucks	2	4	2	4	2	4
	Rubber tired backhoe	Tractors/Loaders/Backhoes	1	4	1	4	1	4
	Skiploader	Tractors/Loaders/Backhoes	1	4	1	4	1	4
	4000 gal water truck	Off-Highway Trucks	2	8	2	8	2	8
Grading	D-6 dozer	Rubber Tired Dozers	1	4	1	4	1	6
	349 excavator	Excavators	1	6	1	6	1	6
	3/4 tn pickup	Off-Highway Trucks	6	4	8	4	10	4
	4000 gal water truck	Off-Highway Trucks	4	4	4	4	6	4
	Cat 14 motor grader	Graders	1	6	1	6	1	8
	Cat 623 scraper	Scrapers	1	4	1	4	1	4
	Skiploader	Tractors/Loaders/Backhoes	1	8	1	8	1	8
	Rubber tired backhoe	Tractors/Loaders/Backhoes	1	8	1	8	1	8
	Telehandler	Aerial Lifts	1	8	1	8	1	8

Table 5-3. Construction Equipment Mix Assumptions

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Phase Name	Equipment Type	CalEEMod [®] Equipment Type	Construction Segment 5		Construction Segment 6		Construction Segment 7	
			Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²	Number of Equipment Used ²	Equipment Activity (hrs/day/equip) ²
Building Construction	80 tn RT crane	Cranes	1	8	1	8	1	8
	150 tn RT crane	Cranes	1	4	1	4	1	4
	80' manlift	Aerial Lifts	1	8	1	8	1	8
	Material handler (forklift)	Forklifts	2	8	2	8	3	8
	3/4 tn pickup	Off-Highway Trucks	5	4	5	4	5	4
	1 tn pickup	Off-Highway Trucks	5	4	5	4	5	4
	16' flatbed truck	Off-Highway Trucks	1	8	1	8	1	8
	300 tn crawler crane	Cranes	1	4	1	2	0	8
	Compressor	Air Compressors	1	8	1	8	1	8
	Generator	Generator Sets	5	8	5	8	5	8
	Concrete pump (various sizes)	Pumps	1	2	1	1	1	1
Paving	Asphalt paver	Pavers	1	3	1	2	1	4
	Asphalt pickup machine	Paving Equipment	1	3	1	2	1	4
	Concrete paver	Pavers	1	4	1	4	1	4
	Concrete unloader	Other Material Handling Equipment	1	4	1	4	1	4
	3/4 tn pickup	Off-Highway Trucks	4	2	4	2	4	2
	1 tn pickup	Off-Highway Trucks	2	2	2	2	2	2
	Compressor	Air Compressors	1	2	1	2	1	2
	Generator	Generator Sets	1	2	1	2	1	2
	Asphalt roller	Rollers	3	3	3	2	3	4
	Skiploader	Tractors/Loaders/Backhoes	2	3	2	2	2	4

Notes:

¹ CalEEMod[®] default were used for horsepower rating and load factor for each equipment type. Available at: www.caleemod.com. Accessed: March 2022.

² Equipment mix and activity reflect project-specific information.

Abbreviations:

CalEEMod[®] - California Emissions Estimator Model

equip - equipment

hrs - hours

Table 5-4. Estimated Material Movement Volumes

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Segment #	Construction Phase Name	Air District	Segment Fill ¹ (yd ³)	Segment Cut ¹ (yd ³)	Material Imported ² (yd ³)	Material Exported ² (yd ³)
Segment 1	Grading	MDAQMD	492,207	12,287	479,920	--
Segment 2	Grading	MDAQMD	119,861	49,881	69,980	--
Segment 3	Grading	MDAQMD	89,286	118,791	--	29,505
Segment 4	Grading	MDAQMD and SCAQMD	661,588	39,833	621,755	--
Segment 5	Grading	SCAQMD	55,106	8,587	46,519	--
Segment 6	Grading	SCAQMD	96,782	40,074	56,708	--
Segment 7	Grading	SCAQMD	287,869	1,005	286,864	--

Notes:¹ Cut and fill data based on project-specific estimates.² Material movement quantities estimated based on project-specific cut and fill data.Abbreviations:

MDAQMD - Mojave Desert Air Quality Management District

SCAQMD - South Coast Air Quality Management District

yd³ - cubic yard

Table 5-5. Demolition Waste Volumes

Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Air District	Pavement Demolished ¹ (tons of debris)	Bridge Demolished ¹ (tons of debris)	Total Demolition Material (tons)
Segment 1	Demolition	MDAQMD	18,658	--	18,658
Segment 2	Demolition	MDAQMD	27,724	682	28,406
Segment 3	Demolition	MDAQMD	51,076	818	51,894
Segment 4	Demolition	MDAQMD and SCAQMD	82,800	--	82,800
Segment 5	Demolition	SCAQMD	44,800	--	44,800
Segment 6	Demolition	SCAQMD	190,500	--	190,500
Segment 7	Demolition	SCAQMD	88,500	--	88,500

Notes:

¹ Debris quantity based on project-specific data.

Abbreviations:

MDAQMD - Mojave Desert Air Quality Management District

SCAQMD - South Coast Air Quality Management District

Table 5-6. Construction Worker, Vendor, and Hauling Trips Summary

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Construction Segment #	Construction Phase Name	Air District	Worker Trips per Day ¹	Vendor Trips per Day ¹	Total Hauling Trips ²
Segment 1	Demolition	MDAQMD	3	0	1,845
	Site Preparation	MDAQMD	2	2	0
	Grading	MDAQMD	5	17	59,990
	Building Construction	MDAQMD	13	17	0
	Paving	MDAQMD	2	5	0
Segment 2	Demolition	MDAQMD	5	0	2,809
	Site Preparation	MDAQMD	4	3	0
	Grading	MDAQMD	3	16	8,748
	Building Construction	MDAQMD	17	21	0
	Paving	MDAQMD	2	5	0
Segment 3	Demolition	MDAQMD	3	0	5,132
	Site Preparation	MDAQMD	2	2	0
	Grading	MDAQMD	7	18	3,688
	Building Construction	MDAQMD	3	7	0
	Paving	MDAQMD	5	16	0
Segment 4	Demolition	MDAQMD and SCAQMD	5	0	8,188
	Site Preparation	MDAQMD and SCAQMD	4	3	0
	Grading	MDAQMD and SCAQMD	8	19	77,719
	Building Construction	MDAQMD and SCAQMD	10	15	0
	Paving	MDAQMD and SCAQMD	2	7	0
Segment 5	Demolition	SCAQMD	5	0	4,430
	Site Preparation	SCAQMD	4	3	0
	Grading	SCAQMD	3	16	5,815
	Building Construction	SCAQMD	13	17	0
	Paving	SCAQMD	5	10	0
Segment 6	Demolition	SCAQMD	5	0	18,838
	Site Preparation	SCAQMD	4	3	0
	Grading	SCAQMD	3	16	7,089
	Building Construction	SCAQMD	10	15	0
	Paving	SCAQMD	2	10	0
Segment 7	Demolition	SCAQMD	5	0	8,752
	Site Preparation	SCAQMD	4	3	0
	Grading	SCAQMD	7	18	35,858
	Building Construction	SCAQMD	17	20	0
	Paving	SCAQMD	2	7	0

Notes:

¹ Trips are presented as one-way trips and are based on project-specific estimates. Project-specific one-way trip lengths for worker and vendor trips are 35 and 25 miles, respectively. Project-specific one-way trip lengths for haul trips are 10 miles for exported material and 15 miles for imported material.

Abbreviations:

MDAQMD - Mojave Desert Air Quality Management District

SCAQMD - South Coast Air Quality Management District

Table 5-7. SCE Electricity Carbon Intensity Factors

Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Energy Delivered					
	2018	2019	2020	Average	Units
Total Energy Delivery ¹	87,143,000	84,654,000	85,399,000	--	MWh
from renewables	31,720,052	32,253,174	29,206,458	--	MWh
from non-renewables	55,422,948	52,400,826	56,192,542	--	MWh
% of Total Energy From Renewables ²	36.4%	38.1%	34.2%	--	%
% of Total Energy From Non-Renewables	64%	62%	66%	--	%
CO ₂ e Intensity Factor per Total Energy Delivered ³	513	393	512	453	lb CO ₂ e/MWh delivered
CO ₂ e Intensity Factor per Total Non-Renewable Energy ⁴	807	635	778	707	lb CO ₂ e/MWh delivered

Estimated Intensity Factors for Total Energy Delivered ⁵					
2020 RPS (33%) ⁶	540.4	425.4	521.3	495.71	lb CO ₂ e/MWh delivered
2025 RPS (47.2%) ⁶	425.9	335.2	410.8	390.65	lb CO ₂ e/MWh delivered
2026 RPS (50%) ⁶	403.3	317.4	389.1	369.94	lb CO ₂ e/MWh delivered

Conversion Factors:

2,204.62 lb/MT

Notes:

¹ The total energy delivered is the net generation for the data year. Values shown are the total system sales for each year, and were obtained from SCE's Financial Statistical Reports. Available: <https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2019-financial-statistical-report.pdf> and <https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2020-financial-statistical-report.pdf>. Accessed: March 2022.

² The percentages of energy from renewable sources for 2018, 2019, and 2020 were obtained from SCE's 2020 Sustainability Report. Available: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>. Accessed: March 2022.

³ 2018, 2019, and 2020 SCE carbon intensities obtained from SCE's 2020 Sustainability Report. Available: <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>. Accessed: March 2022.

⁴ The emissions metric presented here is calculated based on the total CO₂e emissions divided by the energy delivered from non-renewable sources.

⁵ The intensity factors for default RPS assumption are estimated by multiplying the percentage of energy delivered from non-renewable energy by the CO₂e emissions per total non-renewable energy metric calculated above. The estimate provided here assumes that renewable energy sources do not result in any CO₂e emissions.

⁶ RPS for 2020 and 2026 based on California Senate Bill (SB) 100. RPS for 2025 determined by linearly interpolating between the 2020 RPS (33%) and the 2026 RPS (50%), as listed in SB 100. Available: https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100. Accessed: December 2021.

Abbreviations:

CEC - California Energy Commission

CO₂e - carbon dioxide equivalents

lbs - pounds

MWh - megawatt-hour

RPS - Renewable Portfolio Standard

SCE - Southern California Edison

Table 5-8. Greenhouse Gas Emission Factors for Passenger Cars
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Region	Calendar Year	EMFAC Output ^{1,2}				GHG Emission Factors ³			
		VMT (miles/day)	CO ₂ Emissions (tons per day)	CH ₄ Emissions (tons per day)	N ₂ O Emissions (tons per day)	CO ₂ (tons per mile)	CH ₄ (tons per mile)	N ₂ O (tons per mile)	CO ₂ e (tons per mile)
South Coast	2025	38,904,655	11,924	0.35	0.33	3.07E-04	9.11E-09	8.61E-09	3.09E-04
	2045	47,393,631	10,917	0.17	0.30	2.30E-04	3.65E-09	6.26E-09	2.32E-04
Mojave Desert	2025	26,007,882	7,845.10	0.25	0.24	3.02E-04	9.46E-09	9.06E-09	3.05E-04
	2045	31,819,197	7,115	0.11	0.20	2.24E-04	3.56E-09	6.24E-09	2.26E-04

Conversion Factor:

365 days/year

Notes:

¹ Emission factors for passenger car vehicle classes derived from EMFAC2017 (v1.0.3). Available: <https://arb.ca.gov/emfac/emissions-inventory/>. Accessed: December 2021.

² Passenger car vehicles include LDA, LDT1, LDT2, and MDV vehicle classes.

³ GHG emission factors use the Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials of 1, 25, and 298 for carbon dioxide, methane, and nitrous oxide, respectively.

Abbreviations:

CH₄ - methane

CO₂ - carbon dioxide

CO₂e - carbon dioxide equivalents

EMFAC - Emission Factor model

GHG - greenhouse gas

LDA - light-duty automotive

LDT - light-duty truck

MDV - medium-duty vehicle

N₂O - nitrous oxide

Table 5-9. De Minimis Levels

Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Pollutant	De Minimis Level ¹ (tons/year)	
	South Coast Air Basin ²	Mojave Desert Air Basin ³
Ozone (VOCs or NO _x)	10 (nonattainment -extreme)	25 (nonattainment - severe)
CO	100	100
SO ₂ or NO ₂	100	100
PM ₁₀	100	100 (nonattainment – moderate)
PM _{2.5}	70 (nonattainment - serious)	100

Notes:

¹ USEPA De Minimis thresholds are available here: <https://www.epa.gov/general-conformity/de-minimis-tables>. Accessed: October 2021.

² The South Coast Air Basin attainment status is available here: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf>. Accessed: March 2022.

³ The Mojave Desert Air Basin attainment status is available here: <https://www.mdaqmd.ca.gov/home/showpublisheddocument/1267/636337468837000000>. Accessed: March 2022.

Abbreviations:

CO - carbon monoxide

NO_x - oxides of nitrogen (NO + NO₂)

PM₁₀ - particulate matter less than 10 microns in diameter

PM_{2.5} - particulate matter less than 2.5 microns in diameter

SO_x - sulfur oxide compounds

VOC - volatile organic compounds

Table 6-1. Federal Attainment Status for South Coast Air Basin and Mojave Desert Air Basin

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Pollutant	Federal Classification	
	South Coast Air Basin ¹	Mojave Desert Air Basin ²
Ozone	Nonattainment - Extreme	Nonattainment - Severe
Carbon Monoxide	Attainment - Maintenance	Unclassified/Attainment
NO ₂	Unclassifiable/Attainment (1-hour)	Unclassified/Attainment
	Attainment – Maintenance (Annual)	
SO ₂	Unclassifiable/Attainment	Unclassified/Attainment
PM ₁₀	Attainment - Maintenance	Nonattainment - Moderate
PM _{2.5}	Nonattainment - Serious	Unclassified/Attainment

Notes:

¹ The South Coast Air Basin attainment status is available here: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf>. Accessed: March 2022.

² The Mojave Desert Air Basin attainment status is available here: <https://www.mdaqmd.ca.gov/home/showpublisheddocument/1267/636337468837000000>. Accessed: March 2022.

Abbreviations:

CO - carbon monoxide

NO_x - oxides of nitrogen (NO + NO₂)PM₁₀ - particulate matter less than 10 microns in diameterPM_{2.5} - particulate matter less than 2.5 microns in diameterSO_x - sulfur oxide compounds

VOC - volatile organic compounds

Table 6-2. Existing Mobile On-Road Emissions for San Bernardino County
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Region	Criteria Pollutant Emissions (tons/day)						Greenhouse Gas Emissions ² (metric tons CO ₂ e/day)
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	
San Bernardino County – South Coast	3.6	20.8	64.0	0.2	2.6	1.2	17,314
San Bernardino County – Mojave Desert	3.1	17.4	48.6	0.1	1.9	0.9	12,874
Total Daily Emissions	6.6	38.2	112.6	0.3	4.5	2.1	30,189

Notes:

¹ The criteria air pollutant and greenhouse gas emissions are obtained from EMFAC2017 for San Bernardino County - South Coast and San Bernardino County - Mojave Desert in 2020. A newer version of EMFAC, EMFAC2021, was released in January 2021, however it has not been approved by USEPA.

²GHG emissions use the Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials of 1, 25, and 298 for carbon dioxide, methane, and nitrous oxide, respectively.

Abbreviations:

CO - carbon monoxide

CO₂e - carbon dioxide equivalents

EMFAC - Emission FACTor model

NO_x - oxides of nitrogen (NO + NO₂)

PM₁₀ - particulate matter less than 10 microns in diameter

PM_{2.5} - particulate matter less than 2.5 microns in diameter

SO_x - sulfur oxide compounds

USEPA - United States Environmental Protection Agency

VOC - volatile organic compounds

Table 6-3. Local Ambient Air Quality Data near Rancho Cucamonga Passenger Station
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Pollutant	2018	2019	2020
Ozone (O ₃) ¹			
Maximum Concentration 1-hr period, ppm	0.133	0.131	0.158
Maximum Concentration 8-hr period, ppm	0.111	0.107	0.123
Days greater than California 1-hr Standard	25	31	82
Days greater than California 8-hr Standard	54	54	118
Days greater than Federal 8-hr Standard	52	52	116
Carbon Monoxide (CO) ¹			
Maximum Concentration 1-hr period, ppm	1.7	1.5	1.5
Maximum Concentration 8-hr period, ppm	1.2	1.1	1.1
Number of Exceedances, California 8-hr Standard	0	0	0
Number of Exceedances, Federal 1-hr Standard	0	0	0
Nitrogen Dioxide (NO ₂) ¹			
Maximum Concentration 1-hr period, ppb	59.0	58.0	55.0
Annual Arithmetic Mean (AAM), ppb	14.7	14.0	13.9
Exceed Federal 1-hr Standard?	No	No	No
Exceed California Annual Standard?	No	No	No
Sulfur Dioxide (SO ₂) ²			
Maximum Concentration 1-hr period, ppb	2.9	2.4	2.5
Maximum Concentration 24-hr period, ppb	0.9	0.9	0.9
Number of Exceedances, National 24-hr Standard	0	0	0
Respirable Particulate Matter (PM ₁₀) ¹			
Maximum Concentration 24-hr period, µg/m ³	157	126	175
Annual Arithmetic Mean (AAM), µg/m ³	33.4	29.0	33.5
Number of Exceedances, California 24-hr Standard	*	*	*
Exceed California Annual Standard?	Yes	Yes	Yes
Number of Exceedances, Federal 24-hr Standard	*	*	1
Fine Particulate Matter (PM _{2.5}) ³			
Maximum Concentration 24-hr period, µg/m ³	60.4	57.7	59.2
Annual Arithmetic Mean (AAM), µg/m ³	14.5	12.8	15.1
Exceed California Annual Standard?	Yes	Yes	Yes
Number of Exceedances, Federal 24-hr Standard	7	6	14
Exceed Federal Annual Standard?	Yes	Yes	Yes

Notes:

¹ Data presented is for the Upland air quality monitoring station.

² Data presented is for the Fontana air quality monitoring station.

³ Data presented is for the Ontario air quality monitoring station.

Sources:

Ozone, PM₁₀, PM_{2.5} data obtained from CARB iDAM: Air Quality Data Statistics. Available at:

<https://www.arb.ca.gov/adam/select8/sc8start.php>.

SO₂, NO₂, and CO data obtained from EPA AirData. Available at: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>.

Abbreviations:

µg/m³ - micrograms per cubic meter

hr - hour

ppb - parts per billion

ppm - parts per million

Table 6-4. Local Ambient Air Quality Data near Hesperia Passenger Station
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Pollutant	2018	2019	2020
Ozone (O ₃) ¹			
Maximum Concentration 1-hr period, ppm	0.113	0.108	0.118
Maximum Concentration 8-hr period, ppm	0.100	0.088	0.094
Days greater than California 1-hr Standard	9	9	9
Days greater than California 8-hr Standard	73	52	48
Days greater than Federal 8-hr Standard	71	47	46
Carbon Monoxide (CO) ²			
Maximum Concentration 1-hr period, ppm	1.4	1.5	1.6
Maximum Concentration 8-hr period, ppm	1.1	1.1	1.4
Number of Exceedances, California 8-hr Standard	0	0	0
Number of Exceedances, Federal 1-hr Standard	0	0	0
Nitrogen Dioxide (NO ₂) ²			
Maximum Concentration 1-hr period, ppb	51.0	56.0	59.0
Annual Arithmetic Mean (AAM), ppb	11.5	11.4	12.5
Exceed Federal 1-hr Standard?	No	No	No
Exceed California Annual Standard?	No	No	No
Sulfur Dioxide (SO ₂) ²			
Maximum Concentration 1-hr period, ppb	9.9	4.3	3.6
Maximum Concentration 24-hr period, ppb	2.7	3.4	2.2
Number of Exceedances, National 24-hr Standard	0	0	0
Respirable Particulate Matter (PM ₁₀) ¹			
Maximum Concentration 24-hr period, µg/m ³	139	158	224
Annual Arithmetic Mean (AAM), µg/m ³	27.8	24.5	28.2
Number of Exceedances, California 24-hr Standard	*	*	*
Exceed California Annual Standard?	Yes	Yes	Yes
Number of Exceedances, Federal 24-hr Standard	0	1	1
Fine Particulate Matter (PM _{2.5}) ²			
Maximum Concentration 24-hr period, µg/m ³	32.7	17.8	48.4
Annual Arithmetic Mean (AAM), µg/m ³	7.9	7.0	9.7
Exceed California Annual Standard?	No	No	No
Number of Exceedances, Federal 24-hr Standard	0	0	4
Exceed Federal Annual Standard?	No	No	No

Notes:

¹ Data presented is for the Hesperia-Olive Street air quality monitoring station.

² Data presented is for the Victorville-14306 Park Avenue air quality monitoring station.

Sources:

Ozone, PM₁₀, PM_{2.5} data obtained from CARB iDAM: Air Quality Data Statistics. Available at:

<https://www.arb.ca.gov/adam/select8/sc8start.php>.

SO₂, NO₂, and CO data obtained from EPA AirData. Available at: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>.

Abbreviations:

µg/m³ - micrograms per cubic meter

hr - hour

ppb - parts per billion

ppm - parts per million

Table 7-1. Criteria Air Pollutant Emissions for Project Construction in the South Coast Air Basin

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Year	Source ¹	Maximum Annual Mitigated Emission Estimates (tpy)					
		VOC ²	NO _x	CO	SO ₂	PM ₁₀ ³	PM _{2.5} ³
2022	On-site	1.05	4.84	44.67	0.09	1.98	0.47
	Off-site	0.13	2.73	1.28	0.01	0.57	0.18
	Total	1.18	7.57	45.95	0.10	2.55	0.65
	Exceedance? ⁴	No	No	No	No	No	No
2023	On-site	1.45	6.66	57.77	0.12	1.42	0.57
	Off-site	0.13	3.23	1.54	0.02	0.83	0.25
	Total	1.58	9.89	59.31	0.13	2.26	0.82
	Exceedance? ⁴	No	No	No	No	No	No
2024	On-site	1.03	4.36	36.96	0.07	1.12	0.44
	Off-site	0.10	3.20	1.31	0.02	0.71	0.22
	Total	1.14	7.56	38.27	0.09	1.83	0.66
	Exceedance? ⁴	No	No	No	No	No	No
2025	On-site	0.01	0.06	0.47	0.001	0.11	0.02
	Off-site	0.003	0.10	0.04	0.0005	0.02	0.01
	Total	0.01	0.16	0.50	0.001	0.13	0.02
	Exceedance? ⁴	No	No	No	No	No	No
De Minimis Threshold ⁵		10	10	100	100	100	70

Notes:

¹ On-site emissions are from off-road construction equipment and fugitive dust emissions from material movement that occur along the rail alignment for the Build Alternative shown in Figure 3-1. Off-site emissions are from worker, vendor, and hauling trips.

² For purposes of this analysis VOC emissions are assumed to be equal to ROG.

³ PM emissions are estimated as a sum of exhaust, tire wear, brake wear, and fugitive emissions. Watering of the site is assumed to take place twice daily, resulting in a 55% reduction in fugitive PM per CalEEMod® default assumptions.

⁴ Evaluation of exceedance of the federal annual de minimis threshold by project emissions.

⁵ 40 CFR 93.153 (b)(1). Federal annual emission thresholds based on attainment status of the National Ambient Air Quality Standards within the air district.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

CO - carbon monoxide

NO_x - oxides of nitrogen (NO + NO₂)

PM_{2.5} - particulate matter less than 2.5 microns in diameter

PM₁₀ - particulate matter less than 10 microns in diameter

ROG - reactive organic compounds

SCAQMD - South Coast Air Quality Management District

SO₂ - sulfur dioxide

tpy - tons per year

VOC - volatile organic compounds

Table 7-2. Criteria Air Pollutant Emissions for Project Construction in the Mojave Desert Air Basin
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Year	Source ¹	Maximum Annual Mitigated Emission Estimates (tpy)					
		VOC ²	NO _x	CO	SO ₂	PM ₁₀ ³	PM _{2.5} ³
2022	On-site	0.54	2.51	23.31	0.05	0.30	0.11
	Off-site	0.05	0.83	0.52	0.005	0.24	0.07
	Total	0.60	3.34	23.84	0.05	0.54	0.18
	Exceedance? ⁴	No	No	No	No	No	No
2023	On-site	1.46	6.80	61.25	0.12	1.72	0.60
	Off-site	0.14	3.88	1.75	0.02	0.92	0.28
	Total	1.60	10.68	63.00	0.14	2.65	0.88
	Exceedance? ⁴	No	No	No	No	No	No
2024	On-site	1.41	6.49	57.00	0.11	1.81	0.70
	Off-site	0.14	4.61	1.79	0.02	0.96	0.30
	Total	1.55	11.10	58.78	0.14	2.78	1.00
	Exceedance? ⁴	No	No	No	No	No	No
2025	On-site	0.23	1.09	9.05	0.02	0.60	0.17
	Off-site	0.02	0.44	0.18	0.00	0.11	0.03
	Total	0.25	1.52	9.23	0.02	0.71	0.20
	Exceedance? ⁴	No	No	No	No	No	No
De Minimis Threshold ⁵		25	25	100	100	100	100

Notes:

¹ On-site emissions are from off-road construction equipment and fugitive dust emissions from material movement that occur along the rail alignment for the Build Alternative shown in Figure 3-1. Off-site emissions are from worker, vendor, and hauling trips.

² For purposes of this analysis VOC emissions are assumed to be equal to ROG.

³ PM emissions are estimated as a sum of exhaust, tire wear, brake wear, and fugitive emissions. Watering of the site is assumed to take place twice daily, resulting in a 55% reduction in fugitive PM per CalEEMod® default assumptions.

⁴ Evaluation of exceedance of the federal annual de minimis threshold by project emissions.

⁵ 40 CFR 93.153 (b)(1). Federal annual emission thresholds based on attainment status of the National Ambient Air Quality Standards within the air district.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

CO - carbon monoxide

MDAQMD - Mojave Desert Air Quality Management District

NO_x - oxides of nitrogen (NO + NO₂)

PM_{2.5} - particulate matter less than 2.5 microns in diameter

PM₁₀ - particulate matter less than 10 microns in diameter

ROG - reactive organic compounds

SO₂ - sulfur dioxide

tpy - tons per year

VOC - volatile organic compounds

Table 7-3. Operational GHG Emissions in South Coast Air Basin

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Calendar Year¹	2025	2045	
Train Trips per Day ²	46	90	
Train Trip Length ²	19	19	(mi)
Electricity Required to Power Trains	53,213	104,112	(MWh/year)
Carbon Intensity of Electricity ³	390.65	0	(lb CO ₂ e/MWh)
GHG Emissions from Electricity Generation	9,429	0	(MT CO ₂ e/year)
Passenger Car VMT Reductions ⁴	32,401,311	64,569,303	(miles/year)
Passenger Car EF ⁵	3.09E-04	2.32E-04	(ton CO ₂ e/mile)
Avoided Passenger Car Tailpipe GHG Emissions	9,091	13,608	(MT CO ₂ e/year)
Total Net Annual GHG Emissions due to the Project	338	-13,608	(MT CO ₂ e/year)

Conversion Factors and Constants:

49 miles, total segment length
 19 miles, South Coast portion of railway
 569,163 BTU/train mile traveled²
 3,412 BTU/kWh
 1,000 kWh/MWh
 2,204.62 lb/MT
 365 days/year
 0.907185 MT/ton

Notes:

¹ Emissions are calculated for 2025, the first year of full project operation, and 2045, the project horizon year.

² The number of trips per day, trip lengths, and electricity required per train mile traveled were all provided by the proponent and external consultants.

³ The carbon intensities in 2025 and 2045 are based on the carbon intensity of SCE's current power mix, and adjusted in order to account for RPS. It is assumed that 47.2% of provided electricity will be renewable by 2025, and that 100% of provided electricity will be renewable based on California Senate Bill (SB) 100. SCE carbon intensities shown are calculated in **Table 5-7**.

⁴ Estimated VMT reductions for each subarea in each calendar year as provided by an external traffic consultant.

⁵ CO₂e emission factors shown are calculated in **Table 5-8**.

Abbreviations:

BTU - British thermal unit
 kWh - kilowatt hour
 lb - pound
 mi - mile
 MT - metric ton

MWh - megawatt hour
 RPS - Renewable Portfolio Standards
 SCE - Southern California Edison
 VMT - vehicle miles travelled

Table 7-4. Operational GHG Emissions in Mojave Desert Air Basin

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Calendar Year¹	2025	2045	
Train Trips per Day ²	46	90	
Train Trip Length ²	30	30	(mi)
Electricity Required to Power Trains	134,020	214,387	(MWh/year)
Carbon Intensity of Electricity ³	390.65	0	(lb CO ₂ e/MWh)
GHG Emissions from Electricity Generation	23,748	0	(MT CO ₂ e/year)
Passenger Car VMT Reductions ⁴	51,159,965	101,951,532	(miles/year)
Passenger Car EF ⁵	3.05E-04	2.26E-04	(ton CO ₂ e/mile)
Avoided Passenger Car Tailpipe GHG Emissions	14,136	20,861	(MT CO ₂ e/year)
Total Net Annual GHG Emissions due to the Project	9,612	-20,861	(MT CO ₂ e/year)

Conversion Factors and Constants:

49 miles, total segment length
 30 miles, Mojave Desert portion of railway
 569,163 BTU/train mile traveled²
 3,412 BTU/kWh
 1,000 kWh/MWh
 2,204.62 lb/MT
 50,000 MWh/year, additional electricity for Hesperia substation
 365 days/year
 0.907185 MT/ton

Notes:

¹ Emissions are calculated for 2025, the first year of full project operation, and 2045, the project horizon year.

² The number of trips per day, trip lengths, and electricity required per train mile traveled were all provided by the proponent and external consultants.

³ The carbon intensities in 2025 and 2045 are based on the carbon intensity of SCE's current power mix, and adjusted in order to account for RPS. It is assumed that 47.2% of provided electricity will be renewable by 2025, and that 100% of provided electricity will be renewable by 2045 based on California Senate Bill (SB) 100. SCE carbon intensities shown are calculated in **Table 5-7**.

⁴ Estimated VMT reductions for each subarea in each calendar year as provided by an external traffic consultant.

⁵ CO₂e emission factors shown are calculated in **Table 5-8**.

Abbreviations:

BTU - British thermal unit

kWh - kilowatt hour

lb - pound

mi - mile

MT - metric ton

MWh - megawatt hour

RPS - Renewable Portfolio Standards

SCE - Southern California Edison

VMT - vehicle miles travelled

Table 7-5. Carbon Monoxide Concentrations for 2025 Opening Year

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Intersections	CO Concentration ¹ (ppm)											
	A.M. Peak Hour				P.M. Peak Hour				8-hour			
	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge
Highway 395/Joshua Street	1.9	1.8	1.8	1.7	2.1	1.9	1.9	1.8	1.5	1.3	1.3	1.2
Fourth Street/I-15 Southbound Ramps	1.8	1.7	1.7	1.6	2.0	1.9	1.8	1.7	1.5	1.4	1.3	1.3
Fourth Street/I-15 Northbound Ramps	1.8	1.7	1.7	1.6	1.9	1.8	1.7	1.7	1.4	1.3	1.3	1.2
Milliken Avenue/Foothill Boulevard	1.7	1.7	1.6	1.6	2.1	1.9	1.8	1.8	1.5	1.4	1.3	1.3
Milliken Avenue/Fourth Street	1.8	1.7	1.7	1.6	2.1	1.9	1.8	1.8	1.5	1.4	1.3	1.3
Milliken Avenue/I-10 Westbound Ramps	1.7	1.6	1.6	1.6	2.0	1.8	1.8	1.7	1.5	1.3	1.3	1.3
Milliken Avenue/I-10 Eastbound Ramps	1.7	1.6	1.6	1.6	2.0	1.9	1.8	1.7	1.5	1.4	1.3	1.3
Maximum CO Concentration	1.9	1.8	1.8	1.7	2.1	1.9	1.9	1.8	1.5	1.4	1.3	1.3
CAAQS Threshold ²	20.0								9.0			
Above CAAQS Threshold?	No	No	No	No	No	No	No	No	No	No	No	No
NAAQS Threshold ²	35.0								9.0			
Above NAAQS Threshold?	No	No	No	No	No	No	No	No	No	No	No	No

Notes:

¹ Obtained from the the screening CALINE4 modeling analysis in **Appendix C**.

² Statewide Ambient Air Quality Significance Determination Thresholds (CAAQS) and National Air Quality Significance Determination Thresholds (NAAQS). Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. Accessed: March 2022.

Abbreviations:

A.M. – ante meridiem (before noon)
 CAAQS - California Ambient Air Quality Standards
 CO - carbon monoxide
 EB - Eastbound
 LOS - Level of Service
 NAAQS - National Ambient Air Quality Standards

NB - Northbound
 P.M. – post meridiem (after noon)
 ppm - parts per million
 SB - Southbound
 WB - Westbound

Table 7-6. Carbon Monoxide Concentrations for 2045 Horizon Year with Mitigation

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Intersections	CO Concentration ¹ (ppm)											
	A.M. Peak Hour				P.M. Peak Hour				8-hour			
	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge	Roadway Edge	25 Feet from Roadway Edge	50 Feet from Roadway Edge	100 Feet from Roadway Edge
Highway 395/Joshua Street	2.0	1.8	1.8	1.7	2.1	1.9	1.9	1.8	1.4	1.3	1.3	1.2
Foothill Boulevard/I-15 Northbound Ramps	1.8	1.7	1.7	1.6	2.1	1.9	1.8	1.7	1.5	1.4	1.3	1.3
Fourth Street/I-15 Southbound Ramps	1.7	1.7	1.6	1.6	1.9	1.8	1.7	1.7	1.4	1.3	1.3	1.2
Fourth Street/I-15 Northbound Ramps	1.7	1.6	1.6	1.6	1.9	1.7	1.7	1.7	1.3	1.3	1.2	1.2
Milliken Avenue/Foothill Boulevard	1.7	1.6	1.6	1.6	2.0	1.8	1.8	1.7	1.4	1.3	1.3	1.2
Milliken Avenue/Fourth Street	1.7	1.7	1.6	1.6	2.1	1.9	1.8	1.8	1.5	1.4	1.3	1.3
Milliken Avenue/Azusa Court (access to Metrolink station)	1.7	1.6	1.6	1.6	1.9	1.7	1.7	1.6	1.4	1.3	1.2	1.2
Milliken Avenue/7th Street (access to Metrolink station)	1.7	1.6	1.6	1.6	1.9	1.7	1.7	1.6	1.4	1.3	1.2	1.2
Milliken Avenue/I-10 Westbound Ramps	1.7	1.7	1.6	1.6	2.1	1.9	1.8	1.7	1.5	1.4	1.3	1.3
Maximum CO Concentration	2.0	1.8	1.8	1.7	2.1	1.9	1.9	1.8	1.5	1.4	1.3	1.3
CAAQS Threshold ²	20.0								9.0			
Above CAAQS Threshold?	No	No	No	No	No	No	No	No	No	No	No	No
NAAQS Threshold ²	35.0								9.0			
Above NAAQS Threshold?	No	No	No	No	No	No	No	No	No	No	No	No

Notes:

¹ Obtained from the the screening CALINE4 modeling analysis in **Appendix C**.

² Statewide Ambient Air Quality Significance Determination Thresholds (CAAQS) and National Air Quality Significance Determination Thresholds (NAAQS). Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. Accessed: March 2022.

Abbreviations:

A.M. – ante meridiem (before noon)

CAAQS - California Ambient Air Quality Standards

CO - carbon monoxide

EB - Eastbound

LOS - Level of Service

NAAQS - National Ambient Air Quality Standards

NB - Northbound

P.M. – post meridiem (after noon)

ppm - parts per million

SB - Southbound

WB - Westbound

DRAFT

Appendix A

Cajon Pass High-Speed Rail Project - Construction of Segment 1 - San Bernardino-Mojave Desert County, Annual

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

Cajon Pass High-Speed Rail Project - Construction of Segment 1
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	389.70	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project landuse for segment 1 construction, assessed using client provided KML data.
- Construction Phase - Site specific phase duration
- Off-road Equipment - Project specific construction equipment
- Off-road Equipment - Project specific construction equipment
- Off-road Equipment - Project specific construction equipment
- Off-road Equipment - Project specific construction equipment
- Off-road Equipment - Project specific construction equipment
- Off-road Equipment - Project specific construction equipment
- Trips and VMT - Project specific trips
- Demolition - Project specific demolition debris

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

Grading - Project specific acreage

Vehicle Trips - Construction only emission calculation.

Vehicle Emission Factors - Construction only

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Project specific equipment

Area Mitigation - Construction only

Fleet Mix - Construction only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_EF_Residential_Exterior	250	0
tblAreaCoating	Area_EF_Residential_Interior	250	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

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

[illegible]

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	6,200.00	680.00
tblConstructionPhase	NumDays	400.00	106.00
tblConstructionPhase	NumDays	620.00	446.00
tblConstructionPhase	NumDays	440.00	26.00
tblConstructionPhase	NumDays	240.00	106.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	479,920.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.00	389.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblRoadDust	MobileAverageVehicleWeight	2.4	0
tblRoadDust	RoadSiltLoading	0.1	0
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

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

tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripNumber	30.00	3.00
tblTripsAndVMT	WorkerTripNumber	15.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	13.00
tblTripsAndVMT	WorkerTripNumber	43.00	2.00
tblTripsAndVMT	WorkerTripNumber	50.00	5.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.1098	9.3078	8.8788	0.0260	0.3149	0.3884	0.7033	0.0619	0.3694	0.4313	0.0000	2,291.211 4	2,291.211 4	0.5295	0.0266	2,312.368 2
2023	1.5168	13.7586	12.4152	0.0429	1.2446	0.5055	1.7501	0.4049	0.4763	0.8812	0.0000	3,849.347 5	3,849.347 5	0.8269	0.1350	3,910.261 4
2024	0.9179	8.7759	7.3821	0.0293	1.2553	0.2878	1.5431	0.4238	0.2685	0.6922	0.0000	2,662.720 1	2,662.720 1	0.5645	0.1301	2,715.608 1
Maximum	1.5168	13.7586	12.4152	0.0429	1.2553	0.5055	1.7501	0.4238	0.4763	0.8812	0.0000	3,849.347 5	3,849.347 5	0.8269	0.1350	3,910.261 4

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3059	1.7116	12.3377	0.0260	0.2038	0.0422	0.2460	0.0450	0.0420	0.0870	0.0000	2,291.208 9	2,291.208 9	0.5295	0.0266	2,312.365 7
2023	0.4569	3.7071	17.5409	0.0429	0.7539	0.0696	0.8235	0.2359	0.0689	0.3047	0.0000	3,849.344 0	3,849.344 0	0.8269	0.1350	3,910.257 9
2024	0.2974	2.9894	10.7571	0.0293	0.7323	0.0495	0.7817	0.2370	0.0488	0.2858	0.0000	2,662.718 0	2,662.718 0	0.5645	0.1301	2,715.606 0
Maximum	0.4569	3.7071	17.5409	0.0429	0.7539	0.0696	0.8235	0.2370	0.0689	0.3047	0.0000	3,849.344 0	3,849.344 0	0.8269	0.1350	3,910.257 9

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.09	73.59	-41.71	0.00	39.96	86.35	53.68	41.84	85.67	66.20	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2022	5-31-2022	4.2101	0.8157
2	6-1-2022	8-31-2022	2.9966	0.5749
3	9-1-2022	11-30-2022	2.3580	0.4516
4	12-1-2022	2-28-2023	2.1874	0.4329
5	3-1-2023	5-31-2023	3.1881	0.7667
6	6-1-2023	8-31-2023	4.5749	1.3044
7	9-1-2023	11-30-2023	4.5461	1.3112
8	12-1-2023	2-29-2024	4.3965	1.3229
9	3-1-2024	5-31-2024	3.6813	1.1765
10	6-1-2024	8-31-2024	2.3088	0.8751
11	9-1-2024	9-30-2024	0.7529	0.2854
		Highest	4.5749	1.3229

Unmitigated Operational

[illegible]

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2022	7/1/2022	6	106	
2	Site Preparation	Site Preparation	3/1/2022	7/1/2022	6	106	
3	Building Construction	Building Construction	3/1/2022	5/1/2024	6	680	

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

4	Paving	Paving	4/1/2023	5/1/2023	6	26
5	Grading	Grading	5/1/2023	10/1/2024	6	446

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 724.75****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	6.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	3	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	4.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20

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Building Construction	Generator Sets	5	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	4.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	4.00	132	0.36
Paving	Rollers	3	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	8	4.00	402	0.38
Grading	Off-Highway Trucks	4	4.00	402	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	3.00	0.00	1,845.00	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	2.00	2.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	13.00	17.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	5.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	20	5.00	17.00	59,990.00	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2021	0.0000	0.2021	0.0306	0.0000	0.0306	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1715	1.3717	1.3909	3.8800e-003		0.0582	0.0582		0.0552	0.0552	0.0000	339.4295	339.4295	0.0892	0.0000	341.6593
Total	0.1715	1.3717	1.3909	3.8800e-003	0.2021	0.0582	0.2603	0.0306	0.0552	0.0858	0.0000	339.4295	339.4295	0.0892	0.0000	341.6593

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3200e-003	0.0766	0.0250	2.9000e-004	7.9500e-003	6.7000e-004	8.6200e-003	2.1900e-003	6.4000e-004	2.8200e-003	0.0000	28.2983	28.2983	1.1800e-003	4.4800e-003	29.6638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	1.0000e-003	0.0122	4.0000e-005	4.1500e-003	2.0000e-005	4.1700e-003	1.1000e-003	2.0000e-005	1.1200e-003	0.0000	3.2899	3.2899	7.0000e-005	8.0000e-005	3.3162
Total	3.4300e-003	0.0776	0.0372	3.3000e-004	0.0121	6.9000e-004	0.0128	3.2900e-003	6.6000e-004	3.9400e-003	0.0000	31.5881	31.5881	1.2500e-003	4.5600e-003	32.9800

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0910	0.0000	0.0910	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0456	0.1975	1.9820	3.8800e-003		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	339.4291	339.4291	0.0892	0.0000	341.6589
Total	0.0456	0.1975	1.9820	3.8800e-003	0.0910	6.0800e-003	0.0970	0.0138	6.0800e-003	0.0199	0.0000	339.4291	339.4291	0.0892	0.0000	341.6589

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3200e-003	0.0766	0.0250	2.9000e-004	7.9500e-003	6.7000e-004	8.6200e-003	2.1900e-003	6.4000e-004	2.8200e-003	0.0000	28.2983	28.2983	1.1800e-003	4.4800e-003	29.6638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	1.0000e-003	0.0122	4.0000e-005	4.1500e-003	2.0000e-005	4.1700e-003	1.1000e-003	2.0000e-005	1.1200e-003	0.0000	3.2899	3.2899	7.0000e-005	8.0000e-005	3.3162
Total	3.4300e-003	0.0776	0.0372	3.3000e-004	0.0121	6.9000e-004	0.0128	3.2900e-003	6.6000e-004	3.9400e-003	0.0000	31.5881	31.5881	1.2500e-003	4.5600e-003	32.9800

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0928	0.7270	0.6527	2.2700e-003		0.0280	0.0280		0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764
Total	0.0928	0.7270	0.6527	2.2700e-003	0.0000	0.0280	0.0280	0.0000	0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764

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3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0140	3.3300e-003	7.0000e-005	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.8000e-004	0.0000	6.4754	6.4754	1.7000e-004	9.5000e-004	6.7640
Worker	7.4000e-004	6.7000e-004	8.1600e-003	2.0000e-005	2.7700e-003	1.0000e-005	2.7800e-003	7.3000e-004	1.0000e-005	7.5000e-004	0.0000	2.1933	2.1933	4.0000e-005	6.0000e-005	2.2108
Total	1.1900e-003	0.0147	0.0115	9.0000e-005	5.1800e-003	2.1000e-004	5.3900e-003	1.4300e-003	2.0000e-004	1.6300e-003	0.0000	8.6686	8.6686	2.1000e-004	1.0100e-003	8.9747

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.1201	1.0666	2.2700e-003		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762
Total	0.0277	0.1201	1.0666	2.2700e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762

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3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0140	3.3300e-003	7.0000e-005	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.8000e-004	0.0000	6.4754	6.4754	1.7000e-004	9.5000e-004	6.7640
Worker	7.4000e-004	6.7000e-004	8.1600e-003	2.0000e-005	2.7700e-003	1.0000e-005	2.7800e-003	7.3000e-004	1.0000e-005	7.5000e-004	0.0000	2.1933	2.1933	4.0000e-005	6.0000e-005	2.2108
Total	1.1900e-003	0.0147	0.0115	9.0000e-005	5.1800e-003	2.1000e-004	5.3900e-003	1.4300e-003	2.0000e-004	1.6300e-003	0.0000	8.6686	8.6686	2.1000e-004	1.0100e-003	8.9747

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.8196	6.8113	6.5848	0.0177		0.2970	0.2970		0.2834	0.2834	0.0000	1,540.6230	1,540.6230	0.3701	0.0000	1,549.8748
Total	0.8196	6.8113	6.5848	0.0177		0.2970	0.2970		0.2834	0.2834	0.0000	1,540.6230	1,540.6230	0.3701	0.0000	1,549.8748

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-003	0.2949	0.0702	1.4000e-003	0.0509	4.1500e-003	0.0551	0.0147	3.9700e-003	0.0187	0.0000	136.5632	136.5632	3.6700e-003	0.0201	142.6491
Worker	0.0119	0.0107	0.1315	3.8000e-004	0.0446	2.3000e-004	0.0448	0.0118	2.1000e-004	0.0121	0.0000	35.3713	35.3713	7.1000e-004	8.9000e-004	35.6539
Total	0.0213	0.3056	0.2017	1.7800e-003	0.0955	4.3800e-003	0.0999	0.0265	4.1800e-003	0.0307	0.0000	171.9345	171.9345	4.3800e-003	0.0210	178.3030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2067	0.9961	9.0387	0.0177		0.0272	0.0272		0.0272	0.0272	0.0000	1,540.6211	1,540.6211	0.3701	0.0000	1,549.8730
Total	0.2067	0.9961	9.0387	0.0177		0.0272	0.0272		0.0272	0.0272	0.0000	1,540.6211	1,540.6211	0.3701	0.0000	1,549.8730

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-003	0.2949	0.0702	1.4000e-003	0.0509	4.1500e-003	0.0551	0.0147	3.9700e-003	0.0187	0.0000	136.5632	136.5632	3.6700e-003	0.0201	142.6491
Worker	0.0119	0.0107	0.1315	3.8000e-004	0.0446	2.3000e-004	0.0448	0.0118	2.1000e-004	0.0121	0.0000	35.3713	35.3713	7.1000e-004	8.9000e-004	35.6539
Total	0.0213	0.3056	0.2017	1.7800e-003	0.0955	4.3800e-003	0.0999	0.0265	4.1800e-003	0.0307	0.0000	171.9345	171.9345	4.3800e-003	0.0210	178.3030

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.9160	7.3289	7.7230	0.0210		0.3101	0.3101		0.2959	0.2959	0.0000	1,828.4238	1,828.4238	0.4371	0.0000	1,839.3513
Total	0.9160	7.3289	7.7230	0.0210		0.3101	0.3101		0.2959	0.2959	0.0000	1,828.4238	1,828.4238	0.4371	0.0000	1,839.3513

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7100e-003	0.2635	0.0668	1.6000e-003	0.0604	2.4800e-003	0.0629	0.0174	2.3800e-003	0.0198	0.0000	155.4547	155.4547	4.0200e-003	0.0228	162.3622
Worker	0.0131	0.0111	0.1424	4.4000e-004	0.0529	2.5000e-004	0.0532	0.0141	2.3000e-004	0.0143	0.0000	40.8559	40.8559	7.5000e-004	9.6000e-004	41.1617
Total	0.0188	0.2746	0.2092	2.0400e-003	0.1133	2.7300e-003	0.1161	0.0315	2.6100e-003	0.0341	0.0000	196.3105	196.3105	4.7700e-003	0.0238	203.5239

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2452	1.1817	10.7228	0.0210		0.0323	0.0323		0.0323	0.0323	0.0000	1,828.4216	1,828.4216	0.4371	0.0000	1,839.3491
Total	0.2452	1.1817	10.7228	0.0210		0.0323	0.0323		0.0323	0.0323	0.0000	1,828.4216	1,828.4216	0.4371	0.0000	1,839.3491

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7100e-003	0.2635	0.0668	1.6000e-003	0.0604	2.4800e-003	0.0629	0.0174	2.3800e-003	0.0198	0.0000	155.4547	155.4547	4.0200e-003	0.0228	162.3622
Worker	0.0131	0.0111	0.1424	4.4000e-004	0.0529	2.5000e-004	0.0532	0.0141	2.3000e-004	0.0143	0.0000	40.8559	40.8559	7.5000e-004	9.6000e-004	41.1617
Total	0.0188	0.2746	0.2092	2.0400e-003	0.1133	2.7300e-003	0.1161	0.0315	2.6100e-003	0.0341	0.0000	196.3105	196.3105	4.7700e-003	0.0238	203.5239

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2965	2.3001	2.5802	7.0600e-003		0.0934	0.0934		0.0890	0.0890	0.0000	615.4661	615.4661	0.1465	0.0000	619.1283
Total	0.2965	2.3001	2.5802	7.0600e-003		0.0934	0.0934		0.0890	0.0890	0.0000	615.4661	615.4661	0.1465	0.0000	619.1283

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3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8500e-003	0.0898	0.0219	5.3000e-004	0.0203	8.2000e-004	0.0212	5.8600e-003	7.9000e-004	6.6500e-003	0.0000	51.6038	51.6038	1.3100e-003	7.5800e-003	53.8958
Worker	4.1100e-003	3.3000e-003	0.0445	1.4000e-004	0.0178	8.0000e-005	0.0179	4.7300e-003	8.0000e-005	4.8000e-003	0.0000	13.4573	13.4573	2.3000e-004	3.0000e-004	13.5521
Total	5.9600e-003	0.0931	0.0664	6.7000e-004	0.0381	9.0000e-004	0.0391	0.0106	8.7000e-004	0.0115	0.0000	65.0611	65.0611	1.5400e-003	7.8800e-003	67.4479

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0825	0.3977	3.6086	7.0600e-003		0.0109	0.0109		0.0109	0.0109	0.0000	615.4653	615.4653	0.1465	0.0000	619.1276
Total	0.0825	0.3977	3.6086	7.0600e-003		0.0109	0.0109		0.0109	0.0109	0.0000	615.4653	615.4653	0.1465	0.0000	619.1276

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3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8500e-003	0.0898	0.0219	5.3000e-004	0.0203	8.2000e-004	0.0212	5.8600e-003	7.9000e-004	6.6500e-003	0.0000	51.6038	51.6038	1.3100e-003	7.5800e-003	53.8958
Worker	4.1100e-003	3.3000e-003	0.0445	1.4000e-004	0.0178	8.0000e-005	0.0179	4.7300e-003	8.0000e-005	4.8000e-003	0.0000	13.4573	13.4573	2.3000e-004	3.0000e-004	13.5521
Total	5.9600e-003	0.0931	0.0664	6.7000e-004	0.0381	9.0000e-004	0.0391	0.0106	8.7000e-004	0.0115	0.0000	65.0611	65.0611	1.5400e-003	7.8800e-003	67.4479

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.1839	0.2276	5.1000e-004		8.3500e-003	8.3500e-003		7.7400e-003	7.7400e-003	0.0000	44.6314	44.6314	0.0136	0.0000	44.9721
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0219	0.1839	0.2276	5.1000e-004		8.3500e-003	8.3500e-003		7.7400e-003	7.7400e-003	0.0000	44.6314	44.6314	0.0136	0.0000	44.9721

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3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	6.4600e-003	1.6400e-003	4.0000e-005	1.4800e-003	6.0000e-005	1.5400e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	3.8102	3.8102	1.0000e-004	5.6000e-004	3.9795
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5238	0.5238	1.0000e-005	1.0000e-005	0.5277
Total	3.1000e-004	6.6000e-003	3.4700e-003	5.0000e-005	2.1600e-003	6.0000e-005	2.2200e-003	6.1000e-004	6.0000e-005	6.7000e-004	0.0000	4.3340	4.3340	1.1000e-004	5.7000e-004	4.5072

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1600e-003	0.0267	0.3008	5.1000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.6313	44.6313	0.0136	0.0000	44.9721
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1600e-003	0.0267	0.3008	5.1000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.6313	44.6313	0.0136	0.0000	44.9721

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	6.4600e-003	1.6400e-003	4.0000e-005	1.4800e-003	6.0000e-005	1.5400e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	3.8102	3.8102	1.0000e-004	5.6000e-004	3.9795
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5238	0.5238	1.0000e-005	1.0000e-005	0.5277
Total	3.1000e-004	6.6000e-003	3.4700e-003	5.0000e-005	2.1600e-003	6.0000e-005	2.2200e-003	6.1000e-004	6.0000e-005	6.7000e-004	0.0000	4.3340	4.3340	1.1000e-004	5.7000e-004	4.5072

3.6 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8923	0.0000	0.8923	0.3073	0.0000	0.3073	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5233	4.4772	3.7449	0.0121		0.1702	0.1702		0.1566	0.1566	0.0000	1,060.8273	1,060.8273	0.3431	0.0000	1,069.4047
Total	0.5233	4.4772	3.7449	0.0121	0.8923	0.1702	1.0625	0.3073	0.1566	0.4639	0.0000	1,060.8273	1,060.8273	0.3431	0.0000	1,069.4047

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3.6 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0293	1.3072	0.4252	6.0700e-003	0.1825	0.0123	0.1948	0.0501	0.0118	0.0619	0.0000	599.6111	599.6111	0.0253	0.0950	628.5643
Vendor	3.8400e-003	0.1773	0.0450	1.0800e-003	0.0407	1.6700e-003	0.0423	0.0117	1.6000e-003	0.0133	0.0000	104.6329	104.6329	2.7100e-003	0.0154	109.2823
Worker	3.3900e-003	2.8800e-003	0.0369	1.1000e-004	0.0137	7.0000e-005	0.0138	3.6400e-003	6.0000e-005	3.7000e-003	0.0000	10.5766	10.5766	1.9000e-004	2.5000e-004	10.6558
Total	0.0365	1.4874	0.5070	7.2600e-003	0.2369	0.0140	0.2509	0.0655	0.0134	0.0789	0.0000	714.8206	714.8206	0.0282	0.1107	748.5023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4015	0.0000	0.4015	0.1383	0.0000	0.1383	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1500	0.7301	5.7977	0.0121		0.0197	0.0197		0.0197	0.0197	0.0000	1,060.8261	1,060.8261	0.3431	0.0000	1,069.4034
Total	0.1500	0.7301	5.7977	0.0121	0.4015	0.0197	0.4212	0.1383	0.0197	0.1580	0.0000	1,060.8261	1,060.8261	0.3431	0.0000	1,069.4034

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3.6 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0293	1.3072	0.4252	6.0700e-003	0.1825	0.0123	0.1948	0.0501	0.0118	0.0619	0.0000	599.6111	599.6111	0.0253	0.0950	628.5643
Vendor	3.8400e-003	0.1773	0.0450	1.0800e-003	0.0407	1.6700e-003	0.0423	0.0117	1.6000e-003	0.0133	0.0000	104.6329	104.6329	2.7100e-003	0.0154	109.2823
Worker	3.3900e-003	2.8800e-003	0.0369	1.1000e-004	0.0137	7.0000e-005	0.0138	3.6400e-003	6.0000e-005	3.7000e-003	0.0000	10.5766	10.5766	1.9000e-004	2.5000e-004	10.6558
Total	0.0365	1.4874	0.5070	7.2600e-003	0.2369	0.0140	0.2509	0.0655	0.0134	0.0789	0.0000	714.8206	714.8206	0.0282	0.1107	748.5023

3.6 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9510	0.0000	0.9510	0.3396	0.0000	0.3396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5750	4.7046	4.1690	0.0136		0.1779	0.1779		0.1637	0.1637	0.0000	1,192.4055	1,192.4055	0.3857	0.0000	1,202.0467
Total	0.5750	4.7046	4.1690	0.0136	0.9510	0.1779	1.1289	0.3396	0.1637	0.5033	0.0000	1,192.4055	1,192.4055	0.3857	0.0000	1,202.0467

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

3.6 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0326	1.4735	0.4787	6.7000e-003	0.2051	0.0137	0.2187	0.0563	0.0131	0.0694	0.0000	662.1683	662.1683	0.0276	0.1049	694.1327
Vendor	4.1700e-003	0.2018	0.0493	1.1900e-003	0.0457	1.8500e-003	0.0476	0.0132	1.7700e-003	0.0150	0.0000	115.9858	115.9858	2.9400e-003	0.0170	121.1372
Worker	3.5500e-003	2.8500e-003	0.0385	1.2000e-004	0.0154	7.0000e-005	0.0155	4.0900e-003	7.0000e-005	4.1500e-003	0.0000	11.6334	11.6334	2.0000e-004	2.6000e-004	11.7153
Total	0.0404	1.6781	0.5665	8.0100e-003	0.2662	0.0156	0.2818	0.0736	0.0149	0.0885	0.0000	789.7874	789.7874	0.0308	0.1222	826.9852

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4279	0.0000	0.4279	0.1528	0.0000	0.1528	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1685	0.8205	6.5155	0.0136		0.0221	0.0221		0.0221	0.0221	0.0000	1,192.4041	1,192.4041	0.3857	0.0000	1,202.0453
Total	0.1685	0.8205	6.5155	0.0136	0.4279	0.0221	0.4501	0.1528	0.0221	0.1749	0.0000	1,192.4041	1,192.4041	0.3857	0.0000	1,202.0453

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0326	1.4735	0.4787	6.7000e-003	0.2051	0.0137	0.2187	0.0563	0.0131	0.0694	0.0000	662.1683	662.1683	0.0276	0.1049	694.1327
Vendor	4.1700e-003	0.2018	0.0493	1.1900e-003	0.0457	1.8500e-003	0.0476	0.0132	1.7700e-003	0.0150	0.0000	115.9858	115.9858	2.9400e-003	0.0170	121.1372
Worker	3.5500e-003	2.8500e-003	0.0385	1.2000e-004	0.0154	7.0000e-005	0.0155	4.0900e-003	7.0000e-005	4.1500e-003	0.0000	11.6334	11.6334	2.0000e-004	2.6000e-004	11.7153
Total	0.0404	1.6781	0.5665	8.0100e-003	0.2662	0.0156	0.2818	0.0736	0.0149	0.0885	0.0000	789.7874	789.7874	0.0308	0.1222	826.9852

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

Unmitigated

[illegible]

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

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

Cajon Pass High-Speed Rail Project - Construction of Segment 2

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	283.39	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project related landuse

Construction Phase - Project specific schedule

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Trips and VMT - Project specific trips and VMT

Demolition -

Grading - Project specific acreage

Vehicle Trips - Construction only

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

Consumer Products - Construction only

Area Coating - construction only

Landscape Equipment - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	38.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	4,650.00	549.00
tblConstructionPhase	NumDays	300.00	106.00
tblConstructionPhase	NumDays	465.00	393.00
tblConstructionPhase	NumDays	330.00	498.00
tblConstructionPhase	NumDays	180.00	106.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0

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

tblGrading	MaterialImported	0.00	69,980.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.00	283.39
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00

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

tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	2,809.00	2,809.04
tblTripsAndVMT	HaulingTripNumber	8,748.00	8,747.50
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	21.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripNumber	30.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	43.00	2.00
tblTripsAndVMT	WorkerTripNumber	48.00	3.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00

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2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.9242	7.8466	7.5119	0.0220	0.4219	0.3265	0.7484	0.0782	0.3088	0.3870	0.0000	1,945.216 7	1,945.216 7	0.4621	0.0278	1,965.043 2
2023	1.5980	13.4821	13.4040	0.0405	0.8991	0.5409	1.4400	0.2927	0.5091	0.8017	0.0000	3,581.179 8	3,581.179 8	0.8611	0.0590	3,620.299 8
2024	0.8360	7.0756	6.6266	0.0224	0.9754	0.2615	1.2368	0.3624	0.2431	0.6055	0.0000	1,991.246 7	1,991.246 7	0.5183	0.0415	2,016.573 6
Maximum	1.5980	13.4821	13.4040	0.0405	0.9754	0.5409	1.4400	0.3624	0.5091	0.8017	0.0000	3,581.179 8	3,581.179 8	0.8611	0.0590	3,620.299 8

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2603	1.4937	10.4192	0.0220	0.2526	0.0363	0.2889	0.0525	0.0361	0.0886	0.0000	1,945.214 6	1,945.214 6	0.4621	0.0278	1,965.041 1
2023	0.4633	2.7391	18.7463	0.0405	0.5295	0.0633	0.5928	0.1665	0.0630	0.2294	0.0000	3,581.176 1	3,581.176 1	0.8611	0.0590	3,620.296 0
2024	0.2543	1.6756	9.7460	0.0224	0.5076	0.0361	0.5437	0.1823	0.0359	0.2182	0.0000	1,991.244 7	1,991.244 7	0.5183	0.0415	2,016.571 6
Maximum	0.4633	2.7391	18.7463	0.0405	0.5295	0.0633	0.5928	0.1823	0.0630	0.2294	0.0000	3,581.176 1	3,581.176 1	0.8611	0.0590	3,620.296 0

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.88	79.20	-41.28	0.00	43.84	87.98	58.38	45.27	87.29	70.12	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	4.9795	0.9947
2	10-1-2022	12-31-2022	3.7727	0.7446
3	1-1-2023	3-31-2023	2.7599	0.5569
4	4-1-2023	6-30-2023	2.7855	0.5581
5	7-1-2023	9-30-2023	4.7751	1.0325
6	10-1-2023	12-31-2023	4.7873	1.0447
7	1-1-2024	3-31-2024	4.1460	0.9667
8	4-1-2024	6-30-2024	1.8589	0.4690
9	7-1-2024	9-30-2024	1.8557	0.4691
		Highest	4.9795	1.0447

Unmitigated Operational

[illegible]

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2022	11/1/2022	6	106	
2	Site Preparation	Site Preparation	7/1/2022	11/1/2022	6	106	
3	Building Construction	Building Construction	7/1/2022	4/1/2024	6	549	

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

4	Paving	Paving	7/1/2022	2/1/2024	6	498
5	Grading	Grading	7/1/2023	10/1/2024	6	393

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 589.5****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	6.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	3	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	4.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29

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

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	5	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	2.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	3	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	2.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	8	4.00	402	0.38
Grading	Off-Highway Trucks	4	4.00	402	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Scrapers	1	6.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	5.00	0.00	2,809.04	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	26	17.00	21.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	5.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	19	3.00	16.00	8,747.50	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3077	0.0000	0.3077	0.0466	0.0000	0.0466	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1715	1.3717	1.3909	3.8800e-003		0.0582	0.0582		0.0552	0.0552	0.0000	339.4295	339.4295	0.0892	0.0000	341.6593
Total	0.1715	1.3717	1.3909	3.8800e-003	0.3077	0.0582	0.3659	0.0466	0.0552	0.1018	0.0000	339.4295	339.4295	0.0892	0.0000	341.6593

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5300e-003	0.1167	0.0380	4.4000e-004	0.0121	1.0200e-003	0.0131	3.3300e-003	9.7000e-004	4.3000e-003	0.0000	43.0993	43.0993	1.8000e-003	6.8300e-003	45.1790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	5.3800e-003	0.1184	0.0584	5.0000e-004	0.0190	1.0600e-003	0.0201	5.1700e-003	1.0000e-003	6.1700e-003	0.0000	48.5824	48.5824	1.9100e-003	6.9700e-003	50.7059

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1385	0.0000	0.1385	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0456	0.1975	1.9820	3.8800e-003		6.0800e-003	6.0800e-003		6.0800e-003	6.0800e-003	0.0000	339.4291	339.4291	0.0892	0.0000	341.6589
Total	0.0456	0.1975	1.9820	3.8800e-003	0.1385	6.0800e-003	0.1446	0.0210	6.0800e-003	0.0271	0.0000	339.4291	339.4291	0.0892	0.0000	341.6589

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5300e-003	0.1167	0.0380	4.4000e-004	0.0121	1.0200e-003	0.0131	3.3300e-003	9.7000e-004	4.3000e-003	0.0000	43.0993	43.0993	1.8000e-003	6.8300e-003	45.1790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	5.3800e-003	0.1184	0.0584	5.0000e-004	0.0190	1.0600e-003	0.0201	5.1700e-003	1.0000e-003	6.1700e-003	0.0000	48.5824	48.5824	1.9100e-003	6.9700e-003	50.7059

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0928	0.7270	0.6527	2.2700e-003		0.0280	0.0280		0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764
Total	0.0928	0.7270	0.6527	2.2700e-003	0.0000	0.0280	0.0280	0.0000	0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764

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3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.1201	1.0666	2.2700e-003		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762
Total	0.0277	0.1201	1.0666	2.2700e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5161	4.3406	4.1218	0.0110		0.1908	0.1908		0.1817	0.1817	0.0000	956.1794	956.1794	0.2322	0.0000	961.9852
Total	0.5161	4.3406	4.1218	0.0110		0.1908	0.1908		0.1817	0.1817	0.0000	956.1794	956.1794	0.2322	0.0000	961.9852

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9800e-003	0.2188	0.0521	1.0400e-003	0.0378	3.0800e-003	0.0409	0.0109	2.9500e-003	0.0138	0.0000	101.3457	101.3457	2.7300e-003	0.0149	105.8622
Worker	9.3700e-003	8.4300e-003	0.1033	3.0000e-004	0.0350	1.8000e-004	0.0352	9.3000e-003	1.6000e-004	9.4700e-003	0.0000	27.7880	27.7880	5.6000e-004	7.0000e-004	28.0100
Total	0.0164	0.2273	0.1554	1.3400e-003	0.0728	3.2600e-003	0.0761	0.0202	3.1100e-003	0.0233	0.0000	129.1337	129.1337	3.2900e-003	0.0156	133.8722

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1285	0.6170	5.6246	0.0110		0.0169	0.0169		0.0169	0.0169	0.0000	956.1782	956.1782	0.2322	0.0000	961.9841
Total	0.1285	0.6170	5.6246	0.0110		0.0169	0.0169		0.0169	0.0169	0.0000	956.1782	956.1782	0.2322	0.0000	961.9841

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9800e-003	0.2188	0.0521	1.0400e-003	0.0378	3.0800e-003	0.0409	0.0109	2.9500e-003	0.0138	0.0000	101.3457	101.3457	2.7300e-003	0.0149	105.8622
Worker	9.3700e-003	8.4300e-003	0.1033	3.0000e-004	0.0350	1.8000e-004	0.0352	9.3000e-003	1.6000e-004	9.4700e-003	0.0000	27.7880	27.7880	5.6000e-004	7.0000e-004	28.0100
Total	0.0164	0.2273	0.1554	1.3400e-003	0.0728	3.2600e-003	0.0761	0.0202	3.1100e-003	0.0233	0.0000	129.1337	129.1337	3.2900e-003	0.0156	133.8722

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.9594	7.7762	8.0447	0.0217		0.3318	0.3318		0.3158	0.3158	0.0000	1,888.9155	1,888.9155	0.4567	0.0000	1,900.3321
Total	0.9594	7.7762	8.0447	0.0217		0.3318	0.3318		0.3158	0.3158	0.0000	1,888.9155	1,888.9155	0.4567	0.0000	1,900.3321

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0500e-003	0.3254	0.0826	1.9700e-003	0.0746	3.0700e-003	0.0777	0.0215	2.9400e-003	0.0245	0.0000	192.0322	192.0322	4.9700e-003	0.0282	200.5651
Worker	0.0171	0.0145	0.1862	5.8000e-004	0.0692	3.3000e-004	0.0695	0.0184	3.0000e-004	0.0187	0.0000	53.4269	53.4269	9.8000e-004	1.2600e-003	53.8268
Total	0.0242	0.3400	0.2687	2.5500e-003	0.1438	3.4000e-003	0.1472	0.0399	3.2400e-003	0.0431	0.0000	245.4591	245.4591	5.9500e-003	0.0295	254.3919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2536	1.2184	11.1067	0.0217		0.0334	0.0334		0.0334	0.0334	0.0000	1,888.9132	1,888.9132	0.4567	0.0000	1,900.3299
Total	0.2536	1.2184	11.1067	0.0217		0.0334	0.0334		0.0334	0.0334	0.0000	1,888.9132	1,888.9132	0.4567	0.0000	1,900.3299

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0500e-003	0.3254	0.0826	1.9700e-003	0.0746	3.0700e-003	0.0777	0.0215	2.9400e-003	0.0245	0.0000	192.0322	192.0322	4.9700e-003	0.0282	200.5651
Worker	0.0171	0.0145	0.1862	5.8000e-004	0.0692	3.3000e-004	0.0695	0.0184	3.0000e-004	0.0187	0.0000	53.4269	53.4269	9.8000e-004	1.2600e-003	53.8268
Total	0.0242	0.3400	0.2687	2.5500e-003	0.1438	3.4000e-003	0.1472	0.0399	3.2400e-003	0.0431	0.0000	245.4591	245.4591	5.9500e-003	0.0295	254.3919

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2334	1.8347	2.0213	5.4800e-003		0.0752	0.0752		0.0715	0.0715	0.0000	478.3816	478.3816	0.1152	0.0000	481.2608
Total	0.2334	1.8347	2.0213	5.4800e-003		0.0752	0.0752		0.0715	0.0715	0.0000	478.3816	478.3816	0.1152	0.0000	481.2608

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

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7200e-003	0.0835	0.0204	4.9000e-004	0.0189	7.7000e-004	0.0197	5.4500e-003	7.3000e-004	6.1800e-003	0.0000	47.9612	47.9612	1.2200e-003	7.0500e-003	50.0914
Worker	4.0500e-003	3.2500e-003	0.0438	1.4000e-004	0.0175	8.0000e-005	0.0176	4.6500e-003	7.0000e-005	4.7300e-003	0.0000	13.2404	13.2404	2.2000e-004	2.9000e-004	13.3336
Total	5.7700e-003	0.0867	0.0642	6.3000e-004	0.0364	8.5000e-004	0.0373	0.0101	8.0000e-004	0.0109	0.0000	61.2016	61.2016	1.4400e-003	7.3400e-003	63.4250

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0642	0.3085	2.8123	5.4800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	478.3810	478.3810	0.1152	0.0000	481.2602
Total	0.0642	0.3085	2.8123	5.4800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	478.3810	478.3810	0.1152	0.0000	481.2602

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

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7200e-003	0.0835	0.0204	4.9000e-004	0.0189	7.7000e-004	0.0197	5.4500e-003	7.3000e-004	6.1800e-003	0.0000	47.9612	47.9612	1.2200e-003	7.0500e-003	50.0914
Worker	4.0500e-003	3.2500e-003	0.0438	1.4000e-004	0.0175	8.0000e-005	0.0176	4.6500e-003	7.0000e-005	4.7300e-003	0.0000	13.2404	13.2404	2.2000e-004	2.9000e-004	13.3336
Total	5.7700e-003	0.0867	0.0642	6.3000e-004	0.0364	8.5000e-004	0.0373	0.0101	8.0000e-004	0.0109	0.0000	61.2016	61.2016	1.4400e-003	7.3400e-003	63.4250

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1172	0.9863	1.0868	2.6400e-003		0.0442	0.0442		0.0411	0.0411	0.0000	231.4253	231.4253	0.0700	0.0000	233.1761
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1172	0.9863	1.0868	2.6400e-003		0.0442	0.0442		0.0411	0.0411	0.0000	231.4253	231.4253	0.0700	0.0000	233.1761

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

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6600e-003	0.0521	0.0124	2.5000e-004	9.0000e-003	7.3000e-004	9.7300e-003	2.5900e-003	7.0000e-004	3.3000e-003	0.0000	24.1299	24.1299	6.5000e-004	3.5500e-003	25.2053
Worker	1.1000e-003	9.9000e-004	0.0122	4.0000e-005	4.1200e-003	2.0000e-005	4.1400e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.2692	3.2692	7.0000e-005	8.0000e-005	3.2953
Total	2.7600e-003	0.0531	0.0246	2.9000e-004	0.0131	7.5000e-004	0.0139	3.6800e-003	7.2000e-004	4.4100e-003	0.0000	27.3991	27.3991	7.2000e-004	3.6300e-003	28.5006

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0319	0.1381	1.4864	2.6400e-003		4.2500e-003	4.2500e-003		4.2500e-003	4.2500e-003	0.0000	231.4251	231.4251	0.0700	0.0000	233.1758
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0319	0.1381	1.4864	2.6400e-003		4.2500e-003	4.2500e-003		4.2500e-003	4.2500e-003	0.0000	231.4251	231.4251	0.0700	0.0000	233.1758

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3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6600e-003	0.0521	0.0124	2.5000e-004	9.0000e-003	7.3000e-004	9.7300e-003	2.5900e-003	7.0000e-004	3.3000e-003	0.0000	24.1299	24.1299	6.5000e-004	3.5500e-003	25.2053
Worker	1.1000e-003	9.9000e-004	0.0122	4.0000e-005	4.1200e-003	2.0000e-005	4.1400e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.2692	3.2692	7.0000e-005	8.0000e-005	3.2953
Total	2.7600e-003	0.0531	0.0246	2.9000e-004	0.0131	7.5000e-004	0.0139	3.6800e-003	7.2000e-004	4.4100e-003	0.0000	27.3991	27.3991	7.2000e-004	3.6300e-003	28.5006

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2188	1.7631	2.1277	5.2200e-003		0.0774	0.0774		0.0719	0.0719	0.0000	457.2035	457.2035	0.1382	0.0000	460.6587
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2188	1.7631	2.1277	5.2200e-003		0.0774	0.0774		0.0719	0.0719	0.0000	457.2035	457.2035	0.1382	0.0000	460.6587

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3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6800e-003	0.0775	0.0197	4.7000e-004	0.0178	7.3000e-004	0.0185	5.1200e-003	7.0000e-004	5.8200e-003	0.0000	45.7220	45.7220	1.1800e-003	6.7200e-003	47.7536
Worker	2.0200e-003	1.7100e-003	0.0219	7.0000e-005	8.1400e-003	4.0000e-005	8.1800e-003	2.1600e-003	4.0000e-005	2.2000e-003	0.0000	6.2855	6.2855	1.1000e-004	1.5000e-004	6.3326
Total	3.7000e-003	0.0792	0.0416	5.4000e-004	0.0259	7.7000e-004	0.0267	7.2800e-003	7.4000e-004	8.0200e-003	0.0000	52.0075	52.0075	1.2900e-003	6.8700e-003	54.0862

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0629	0.2727	2.9351	5.2200e-003		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003	0.0000	457.2029	457.2029	0.1382	0.0000	460.6582
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0629	0.2727	2.9351	5.2200e-003		8.3900e-003	8.3900e-003		8.3900e-003	8.3900e-003	0.0000	457.2029	457.2029	0.1382	0.0000	460.6582

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3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6800e-003	0.0775	0.0197	4.7000e-004	0.0178	7.3000e-004	0.0185	5.1200e-003	7.0000e-004	5.8200e-003	0.0000	45.7220	45.7220	1.1800e-003	6.7200e-003	47.7536
Worker	2.0200e-003	1.7100e-003	0.0219	7.0000e-005	8.1400e-003	4.0000e-005	8.1800e-003	2.1600e-003	4.0000e-005	2.2000e-003	0.0000	6.2855	6.2855	1.1000e-004	1.5000e-004	6.3326
Total	3.7000e-003	0.0792	0.0416	5.4000e-004	0.0259	7.7000e-004	0.0267	7.2800e-003	7.4000e-004	8.0200e-003	0.0000	52.0075	52.0075	1.2900e-003	6.8700e-003	54.0862

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	7.0400e-003	1.7200e-003	4.0000e-005	1.5900e-003	6.0000e-005	1.6600e-003	4.6000e-004	6.0000e-005	5.2000e-004	0.0000	4.0474	4.0474	1.0000e-004	5.9000e-004	4.2271
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.2000e-004	7.1800e-003	3.5500e-003	5.0000e-005	2.3200e-003	6.0000e-005	2.3900e-003	6.5000e-004	6.0000e-005	7.2000e-004	0.0000	4.5995	4.5995	1.1000e-004	6.0000e-004	4.7831

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	7.0400e-003	1.7200e-003	4.0000e-005	1.5900e-003	6.0000e-005	1.6600e-003	4.6000e-004	6.0000e-005	5.2000e-004	0.0000	4.0474	4.0474	1.0000e-004	5.9000e-004	4.2271
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.2000e-004	7.1800e-003	3.5500e-003	5.0000e-005	2.3200e-003	6.0000e-005	2.3900e-003	6.5000e-004	6.0000e-005	7.2000e-004	0.0000	4.5995	4.5995	1.1000e-004	6.0000e-004	4.7831

3.6 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6721	0.0000	0.6721	0.2294	0.0000	0.2294	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3841	3.2359	2.8206	8.9400e-003		0.1248	0.1248		0.1148	0.1148	0.0000	785.0398	785.0398	0.2539	0.0000	791.3872
Total	0.3841	3.2359	2.8206	8.9400e-003	0.6721	0.1248	0.7968	0.2294	0.1148	0.3442	0.0000	785.0398	785.0398	0.2539	0.0000	791.3872

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6200e-003	0.1617	0.0526	7.5000e-004	0.0226	1.5200e-003	0.0241	6.2000e-003	1.4600e-003	7.6600e-003	0.0000	74.1860	74.1860	3.1300e-003	0.0118	77.7682
Vendor	2.7000e-003	0.1248	0.0317	7.6000e-004	0.0286	1.1800e-003	0.0298	8.2500e-003	1.1300e-003	9.3800e-003	0.0000	73.6241	73.6241	1.9000e-003	0.0108	76.8955
Worker	1.5200e-003	1.2900e-003	0.0165	5.0000e-005	6.1400e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003	0.0000	4.7444	4.7444	9.0000e-005	1.1000e-004	4.7799
Total	7.8400e-003	0.2878	0.1008	1.5600e-003	0.0573	2.7300e-003	0.0601	0.0161	2.6200e-003	0.0187	0.0000	152.5545	152.5545	5.1200e-003	0.0227	159.4436

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3024	0.0000	0.3024	0.1032	0.0000	0.1032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1110	0.5410	4.2935	8.9400e-003		0.0146	0.0146		0.0146	0.0146	0.0000	785.0388	785.0388	0.2539	0.0000	791.3863
Total	0.1110	0.5410	4.2935	8.9400e-003	0.3024	0.0146	0.3170	0.1032	0.0146	0.1178	0.0000	785.0388	785.0388	0.2539	0.0000	791.3863

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3.6 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6200e-003	0.1617	0.0526	7.5000e-004	0.0226	1.5200e-003	0.0241	6.2000e-003	1.4600e-003	7.6600e-003	0.0000	74.1860	74.1860	3.1300e-003	0.0118	77.7682
Vendor	2.7000e-003	0.1248	0.0317	7.6000e-004	0.0286	1.1800e-003	0.0298	8.2500e-003	1.1300e-003	9.3800e-003	0.0000	73.6241	73.6241	1.9000e-003	0.0108	76.8955
Worker	1.5200e-003	1.2900e-003	0.0165	5.0000e-005	6.1400e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003	0.0000	4.7444	4.7444	9.0000e-005	1.1000e-004	4.7799
Total	7.8400e-003	0.2878	0.1008	1.5600e-003	0.0573	2.7300e-003	0.0601	0.0161	2.6200e-003	0.0187	0.0000	152.5545	152.5545	5.1200e-003	0.0227	159.4436

3.6 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8505	0.0000	0.8505	0.3275	0.0000	0.3275	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5661	4.5638	4.1984	0.0134		0.1750	0.1750		0.1610	0.1610	0.0000	1,180.2978	1,180.2978	0.3817	0.0000	1,189.8411
Total	0.5661	4.5638	4.1984	0.0134	0.8505	0.1750	1.0254	0.3275	0.1610	0.4884	0.0000	1,180.2978	1,180.2978	0.3817	0.0000	1,189.8411

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3.6 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4000e-003	0.2438	0.0792	1.1100e-003	0.0339	2.2600e-003	0.0362	9.3200e-003	2.1600e-003	0.0115	0.0000	109.5823	109.5823	4.5700e-003	0.0174	114.8721
Vendor	3.9200e-003	0.1900	0.0464	1.1200e-003	0.0430	1.7400e-003	0.0448	0.0124	1.6700e-003	0.0141	0.0000	109.1631	109.1631	2.7700e-003	0.0160	114.0115
Worker	2.1300e-003	1.7100e-003	0.0231	7.0000e-005	9.2400e-003	4.0000e-005	9.2800e-003	2.4500e-003	4.0000e-005	2.4900e-003	0.0000	6.9800	6.9800	1.2000e-004	1.6000e-004	7.0292
Total	0.0115	0.4355	0.1487	2.3000e-003	0.0862	4.0400e-003	0.0902	0.0242	3.8700e-003	0.0280	0.0000	225.7255	225.7255	7.4600e-003	0.0336	235.9129

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3827	0.0000	0.3827	0.1474	0.0000	0.1474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1668	0.8132	6.4539	0.0134		0.0219	0.0219		0.0219	0.0219	0.0000	1,180.2964	1,180.2964	0.3817	0.0000	1,189.8397
Total	0.1668	0.8132	6.4539	0.0134	0.3827	0.0219	0.4046	0.1474	0.0219	0.1693	0.0000	1,180.2964	1,180.2964	0.3817	0.0000	1,189.8397

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4000e-003	0.2438	0.0792	1.1100e-003	0.0339	2.2600e-003	0.0362	9.3200e-003	2.1600e-003	0.0115	0.0000	109.5823	109.5823	4.5700e-003	0.0174	114.8721
Vendor	3.9200e-003	0.1900	0.0464	1.1200e-003	0.0430	1.7400e-003	0.0448	0.0124	1.6700e-003	0.0141	0.0000	109.1631	109.1631	2.7700e-003	0.0160	114.0115
Worker	2.1300e-003	1.7100e-003	0.0231	7.0000e-005	9.2400e-003	4.0000e-005	9.2800e-003	2.4500e-003	4.0000e-005	2.4900e-003	0.0000	6.9800	6.9800	1.2000e-004	1.6000e-004	7.0292
Total	0.0115	0.4355	0.1487	2.3000e-003	0.0862	4.0400e-003	0.0902	0.0242	3.8700e-003	0.0280	0.0000	225.7255	225.7255	7.4600e-003	0.0336	235.9129

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

6.2 Area by SubCategory

Unmitigated

[illegible]

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Cajon Pass High-Speed Rail Project - Construction of Segment 2 - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Cajon Pass High-Speed Rail Project - Construction of Segment 3 - San Bernardino-Mojave Desert County, Annual

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

Cajon Pass High-Speed Rail Project - Construction of Segment 3
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	468.42	144,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project specific landuse
- Construction Phase - Project specific schedule
- Off-road Equipment -
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Trips and VMT - Project specific trips and VMT
- Demolition -

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

Grading - Project specific landuse

Architectural Coating - Project specific coating

Vehicle Trips - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	72,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	216,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	0.00	8,640.00
tblAreaCoating	Area_Nonresidential_Exterior	72000	0
tblAreaCoating	Area_Nonresidential_Interior	216000	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	40.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	500.00	499.00
tblConstructionPhase	NumDays	300.00	106.00
tblConstructionPhase	NumDays	775.00	706.00
tblConstructionPhase	NumDays	7,750.00	419.00

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

tblConstructionPhase	NumDays	550.00	523.00
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialExported	0.00	29,505.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LandUseSquareFeet	0.00	144,000.00
tblLandUse	LotAcreage	0.00	468.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	5,131.00	5,131.65
tblTripsAndVMT	HaulingTripNumber	3,688.00	3,688.10
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	18.00
tblTripsAndVMT	VendorTripNumber	24.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00

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

tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripNumber	43.00	3.00
tblTripsAndVMT	WorkerTripNumber	15.00	2.00
tblTripsAndVMT	WorkerTripNumber	53.00	7.00
tblTripsAndVMT	WorkerTripNumber	46.00	3.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00

2.0 Emissions Summary**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0939	0.7416	0.6641	2.3600e-003	5.1800e-003	0.0282	0.0334	1.4300e-003	0.0260	0.0274	0.0000	207.6363	207.6363	0.0646	1.0100e-003	209.5512
2023	1.3239	10.8690	11.0473	0.0333	1.1006	0.4332	1.5338	0.2523	0.4072	0.6595	0.0000	2,937.2217	2,937.2217	0.7509	0.0349	2,966.3824
2024	2.2800	18.1171	19.4356	0.0593	1.6222	0.6983	2.3205	0.4394	0.6546	1.0940	0.0000	5,239.6027	5,239.6027	1.3535	0.0647	5,292.7137
2025	0.6873	5.2162	5.5628	0.0193	1.0391	0.1874	1.2265	0.2855	0.1731	0.4586	0.0000	1,712.1358	1,712.1358	0.4883	0.0249	1,731.7519
Maximum	2.2800	18.1171	19.4356	0.0593	1.6222	0.6983	2.3205	0.4394	0.6546	1.0940	0.0000	5,239.6027	5,239.6027	1.3535	0.0647	5,292.7137

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

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0289	0.1348	1.0781	2.3600e-003	5.1800e-003	3.9100e-003	9.0900e-003	1.4300e-003	3.9000e-003	5.3300e-003	0.0000	207.6361	207.6361	0.0646	1.0100e-003	209.5509
2023	0.3843	2.0997	15.7798	0.0333	0.5634	0.0524	0.6158	0.1326	0.0522	0.1848	0.0000	2,937.2185	2,937.2185	0.7509	0.0349	2,966.3792
2024	0.6847	3.7881	28.0252	0.0593	0.8576	0.0936	0.9513	0.2335	0.0933	0.3268	0.0000	5,239.5971	5,239.5971	1.3535	0.0647	5,292.7080
2025	0.2266	1.3283	8.6456	0.0193	0.5172	0.0312	0.5483	0.1424	0.0310	0.1734	0.0000	1,712.1340	1,712.1340	0.4883	0.0249	1,731.7501
Maximum	0.6847	3.7881	28.0252	0.0593	0.8576	0.0936	0.9513	0.2335	0.0933	0.3268	0.0000	5,239.5971	5,239.5971	1.3535	0.0647	5,292.7080

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.80	78.96	-45.82	0.00	48.41	86.56	58.46	47.89	85.69	69.17	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.6210	0.1212
2	10-1-2022	12-31-2022	0.2162	0.0423
4	4-1-2023	6-30-2023	0.5280	0.0984
5	7-1-2023	9-30-2023	5.8448	1.1864
6	10-1-2023	12-31-2023	5.8549	1.1965
7	1-1-2024	3-31-2024	5.4391	1.1847
8	4-1-2024	6-30-2024	5.4291	1.1747
9	7-1-2024	9-30-2024	5.4888	1.1876

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

10	10-1-2024	12-31-2024	3.9963	0.8977
11	1-1-2025	3-31-2025	2.4764	0.6440
12	4-1-2025	6-30-2025	1.6819	0.4436
13	7-1-2025	9-30-2025	1.7004	0.4485
		Highest	5.8549	1.1965

2.2 Overall Operational

Unmitigated Operational

[illegible]

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2022	11/1/2022	6	106	
2	Architectural Coating	Architectural Coating	7/1/2022	6/30/2022	5	0	
3	Building Construction	Building Construction	6/1/2023	10/1/2024	6	419	

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

4	Demolition	Demolition	7/1/2023	2/1/2025	6	499
5	Grading	Grading	7/1/2023	10/1/2025	6	706
6	Paving	Paving	7/1/2023	3/1/2025	6	523

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 1059****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,640 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	5	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	8	4.00	402	0.38

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

Grading	Off-Highway Trucks	6	4.00	402	0.38
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	6.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Off-Highway Trucks	4	4.00	402	0.38
Building Construction	Off-Highway Trucks	4	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	2.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	3	5.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	2.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	17	3.00	0.00	5,131.65	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	2.00	2.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	21	7.00	18.00	3,688.10	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	3.00	7.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	5.00	16.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating			0.00	0.00	10.80	7.30				

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0928	0.7270	0.6527	2.2700e-003		0.0280	0.0280		0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764
Total	0.0928	0.7270	0.6527	2.2700e-003	0.0000	0.0280	0.0280	0.0000	0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0140	3.3300e-003	7.0000e-005	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.8000e-004	0.0000	6.4754	6.4754	1.7000e-004	9.5000e-004	6.7640
Worker	7.4000e-004	6.7000e-004	8.1600e-003	2.0000e-005	2.7700e-003	1.0000e-005	2.7800e-003	7.3000e-004	1.0000e-005	7.5000e-004	0.0000	2.1933	2.1933	4.0000e-005	6.0000e-005	2.2108
Total	1.1900e-003	0.0147	0.0115	9.0000e-005	5.1800e-003	2.1000e-004	5.3900e-003	1.4300e-003	2.0000e-004	1.6300e-003	0.0000	8.6686	8.6686	2.1000e-004	1.0100e-003	8.9747

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.1201	1.0666	2.2700e-003		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762
Total	0.0277	0.1201	1.0666	2.2700e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0140	3.3300e-003	7.0000e-005	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.8000e-004	0.0000	6.4754	6.4754	1.7000e-004	9.5000e-004	6.7640
Worker	7.4000e-004	6.7000e-004	8.1600e-003	2.0000e-005	2.7700e-003	1.0000e-005	2.7800e-003	7.3000e-004	1.0000e-005	7.5000e-004	0.0000	2.1933	2.1933	4.0000e-005	6.0000e-005	2.2108
Total	1.1900e-003	0.0147	0.0115	9.0000e-005	5.1800e-003	2.1000e-004	5.3900e-003	1.4300e-003	2.0000e-004	1.6300e-003	0.0000	8.6686	8.6686	2.1000e-004	1.0100e-003	8.9747

Unmitigated Construction On-Site

[illegible]

Unmitigated Construction Off-Site

[illegible]

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

3.3 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4141	3.2785	3.4964	9.6500e-003		0.1384	0.1384		0.1319	0.1319	0.0000	841.7955	841.7955	0.2044	0.0000	846.9066
Total	0.4141	3.2785	3.4964	9.6500e-003		0.1384	0.1384		0.1319	0.1319	0.0000	841.7955	841.7955	0.2044	0.0000	846.9066

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0636	0.0161	3.9000e-004	0.0146	6.0000e-004	0.0152	4.2100e-003	5.7000e-004	4.7800e-003	0.0000	37.5448	37.5448	9.7000e-004	5.5200e-003	39.2131
Worker	1.7700e-003	1.5000e-003	0.0193	6.0000e-005	7.1600e-003	3.0000e-005	7.2000e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	5.5301	5.5301	1.0000e-004	1.3000e-004	5.5714
Total	3.1500e-003	0.0651	0.0354	4.5000e-004	0.0218	6.3000e-004	0.0224	6.1100e-003	6.0000e-004	6.7100e-003	0.0000	43.0748	43.0748	1.0700e-003	5.6500e-003	44.7845

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	0.5230	4.9156	9.6500e-003		0.0149	0.0149		0.0149	0.0149	0.0000	841.7945	841.7945	0.2044	0.0000	846.9056
Total	0.1126	0.5230	4.9156	9.6500e-003		0.0149	0.0149		0.0149	0.0149	0.0000	841.7945	841.7945	0.2044	0.0000	846.9056

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0636	0.0161	3.9000e-004	0.0146	6.0000e-004	0.0152	4.2100e-003	5.7000e-004	4.7800e-003	0.0000	37.5448	37.5448	9.7000e-004	5.5200e-003	39.2131
Worker	1.7700e-003	1.5000e-003	0.0193	6.0000e-005	7.1600e-003	3.0000e-005	7.2000e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	5.5301	5.5301	1.0000e-004	1.3000e-004	5.5714
Total	3.1500e-003	0.0651	0.0354	4.5000e-004	0.0218	6.3000e-004	0.0224	6.1100e-003	6.0000e-004	6.7100e-003	0.0000	43.0748	43.0748	1.0700e-003	5.6500e-003	44.7845

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5144	3.9439	4.4771	0.0124		0.1598	0.1598		0.1521	0.1521	0.0000	1,085.8405	1,085.8405	0.2626	0.0000	1,092.4065
Total	0.5144	3.9439	4.4771	0.0124		0.1598	0.1598		0.1521	0.1521	0.0000	1,085.8405	1,085.8405	0.2626	0.0000	1,092.4065

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3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7200e-003	0.0831	0.0203	4.9000e-004	0.0188	7.6000e-004	0.0196	5.4300e-003	7.3000e-004	6.1500e-003	0.0000	47.7589	47.7589	1.2100e-003	7.0200e-003	49.8800
Worker	2.1300e-003	1.7100e-003	0.0231	7.0000e-005	9.2400e-003	4.0000e-005	9.2800e-003	2.4500e-003	4.0000e-005	2.4900e-003	0.0000	6.9800	6.9800	1.2000e-004	1.6000e-004	7.0292
Total	3.8500e-003	0.0848	0.0434	5.6000e-004	0.0281	8.0000e-004	0.0289	7.8800e-003	7.7000e-004	8.6400e-003	0.0000	54.7389	54.7389	1.3300e-003	7.1800e-003	56.9092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1452	0.6744	6.3392	0.0124		0.0192	0.0192		0.0192	0.0192	0.0000	1,085.8392	1,085.8392	0.2626	0.0000	1,092.4052
Total	0.1452	0.6744	6.3392	0.0124		0.0192	0.0192		0.0192	0.0192	0.0000	1,085.8392	1,085.8392	0.2626	0.0000	1,092.4052

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

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7200e-003	0.0831	0.0203	4.9000e-004	0.0188	7.6000e-004	0.0196	5.4300e-003	7.3000e-004	6.1500e-003	0.0000	47.7589	47.7589	1.2100e-003	7.0200e-003	49.8800
Worker	2.1300e-003	1.7100e-003	0.0231	7.0000e-005	9.2400e-003	4.0000e-005	9.2800e-003	2.4500e-003	4.0000e-005	2.4900e-003	0.0000	6.9800	6.9800	1.2000e-004	1.6000e-004	7.0292
Total	3.8500e-003	0.0848	0.0434	5.6000e-004	0.0281	8.0000e-004	0.0289	7.8800e-003	7.7000e-004	8.6400e-003	0.0000	54.7389	54.7389	1.3300e-003	7.1800e-003	56.9092

3.5 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1769	0.0000	0.1769	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3460	2.6428	2.9842	8.0700e-003		0.1110	0.1110		0.1057	0.1057	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083
Total	0.3460	2.6428	2.9842	8.0700e-003	0.1769	0.1110	0.2879	0.0268	0.1057	0.1325	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083

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3.5 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4600e-003	0.0556	0.0214	2.4000e-004	6.9600e-003	4.7000e-004	7.4300e-003	1.9100e-003	4.5000e-004	2.3600e-003	0.0000	23.6881	23.6881	9.9000e-004	3.7500e-003	24.8314
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.2900e-003	0.0165	5.0000e-005	6.1400e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003	0.0000	4.7444	4.7444	9.0000e-005	1.1000e-004	4.7799
Total	2.9800e-003	0.0568	0.0379	2.9000e-004	0.0131	5.0000e-004	0.0136	3.5400e-003	4.8000e-004	4.0200e-003	0.0000	28.4325	28.4325	1.0800e-003	3.8600e-003	29.6112

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0796	0.0000	0.0796	0.0121	0.0000	0.0121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0940	0.4073	4.1757	8.0700e-003		0.0125	0.0125		0.0125	0.0125	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075
Total	0.0940	0.4073	4.1757	8.0700e-003	0.0796	0.0125	0.0921	0.0121	0.0125	0.0246	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075

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3.5 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4600e-003	0.0556	0.0214	2.4000e-004	6.9600e-003	4.7000e-004	7.4300e-003	1.9100e-003	4.5000e-004	2.3600e-003	0.0000	23.6881	23.6881	9.9000e-004	3.7500e-003	24.8314
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.2900e-003	0.0165	5.0000e-005	6.1400e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003	0.0000	4.7444	4.7444	9.0000e-005	1.1000e-004	4.7799
Total	2.9800e-003	0.0568	0.0379	2.9000e-004	0.0131	5.0000e-004	0.0136	3.5400e-003	4.8000e-004	4.0200e-003	0.0000	28.4325	28.4325	1.0800e-003	3.8600e-003	29.6112

3.5 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3538	0.0000	0.3538	0.0536	0.0000	0.0536	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6679	4.9128	5.9377	0.0161		0.1988	0.1988		0.1891	0.1891	0.0000	1,408.8424	1,408.8424	0.3554	0.0000	1,417.7276
Total	0.6679	4.9128	5.9377	0.0161	0.3538	0.1988	0.5526	0.0536	0.1891	0.2427	0.0000	1,408.8424	1,408.8424	0.3554	0.0000	1,417.7276

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3.5 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9100e-003	0.1114	0.0428	4.7000e-004	0.0139	9.3000e-004	0.0149	3.8300e-003	8.9000e-004	4.7200e-003	0.0000	46.5577	46.5577	1.9100e-003	7.3800e-003	48.8041
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.2800e-003	0.0307	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2600e-003	5.0000e-005	3.3200e-003	0.0000	9.2870	9.2870	1.6000e-004	2.1000e-004	9.3524
Total	5.7500e-003	0.1137	0.0735	5.7000e-004	0.0262	9.9000e-004	0.0272	7.0900e-003	9.4000e-004	8.0400e-003	0.0000	55.8447	55.8447	2.0700e-003	7.5900e-003	58.1565

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1592	0.0000	0.1592	0.0241	0.0000	0.0241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1880	0.8146	8.3514	0.0161		0.0251	0.0251		0.0251	0.0251	0.0000	1,408.8407	1,408.8407	0.3554	0.0000	1,417.7259
Total	0.1880	0.8146	8.3514	0.0161	0.1592	0.0251	0.1843	0.0241	0.0251	0.0492	0.0000	1,408.8407	1,408.8407	0.3554	0.0000	1,417.7259

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3.5 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9100e-003	0.1114	0.0428	4.7000e-004	0.0139	9.3000e-004	0.0149	3.8300e-003	8.9000e-004	4.7200e-003	0.0000	46.5577	46.5577	1.9100e-003	7.3800e-003	48.8041
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.2800e-003	0.0307	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2600e-003	5.0000e-005	3.3200e-003	0.0000	9.2870	9.2870	1.6000e-004	2.1000e-004	9.3524
Total	5.7500e-003	0.1137	0.0735	5.7000e-004	0.0262	9.9000e-004	0.0272	7.0900e-003	9.4000e-004	8.0400e-003	0.0000	55.8447	55.8447	2.0700e-003	7.5900e-003	58.1565

3.5 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0315	0.0000	0.0315	4.7800e-003	0.0000	4.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0565	0.3887	0.5247	1.4400e-003		0.0150	0.0150		0.0143	0.0143	0.0000	125.5968	125.5968	0.0316	0.0000	126.3864
Total	0.0565	0.3887	0.5247	1.4400e-003	0.0315	0.0150	0.0466	4.7800e-003	0.0143	0.0191	0.0000	125.5968	125.5968	0.0316	0.0000	126.3864

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

3.5 Demolition - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-004	9.8500e-003	3.8100e-003	4.0000e-005	1.2400e-003	8.0000e-005	1.3200e-003	3.4000e-004	8.0000e-005	4.2000e-004	0.0000	4.0638	4.0638	1.7000e-004	6.4000e-004	4.2598
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	2.5400e-003	1.0000e-005	1.1000e-003	0.0000	1.1000e-003	2.9000e-004	0.0000	3.0000e-004	0.0000	0.8078	0.8078	1.0000e-005	2.0000e-005	0.8132
Total	5.0000e-004	0.0100	6.3500e-003	5.0000e-005	2.3400e-003	8.0000e-005	2.4200e-003	6.3000e-004	8.0000e-005	7.2000e-004	0.0000	4.8716	4.8716	1.8000e-004	6.6000e-004	5.0731

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	2.1500e-003	0.0000	2.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0168	0.0726	0.7447	1.4400e-003		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	125.5967	125.5967	0.0316	0.0000	126.3863
Total	0.0168	0.0726	0.7447	1.4400e-003	0.0142	2.2400e-003	0.0164	2.1500e-003	2.2400e-003	4.3900e-003	0.0000	125.5967	125.5967	0.0316	0.0000	126.3863

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

3.5 Demolition - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-004	9.8500e-003	3.8100e-003	4.0000e-005	1.2400e-003	8.0000e-005	1.3200e-003	3.4000e-004	8.0000e-005	4.2000e-004	0.0000	4.0638	4.0638	1.7000e-004	6.4000e-004	4.2598
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	2.5400e-003	1.0000e-005	1.1000e-003	0.0000	1.1000e-003	2.9000e-004	0.0000	3.0000e-004	0.0000	0.8078	0.8078	1.0000e-005	2.0000e-005	0.8132
Total	5.0000e-004	0.0100	6.3500e-003	5.0000e-005	2.3400e-003	8.0000e-005	2.4200e-003	6.3000e-004	8.0000e-005	7.2000e-004	0.0000	4.8716	4.8716	1.8000e-004	6.6000e-004	5.0731

3.6 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8000	0.0000	0.8000	0.1909	0.0000	0.1909	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4215	3.4978	3.1149	0.0100		0.1330	0.1330		0.1224	0.1224	0.0000	881.7753	881.7753	0.2852	0.0000	888.9049
Total	0.4215	3.4978	3.1149	0.0100	0.8000	0.1330	0.9330	0.1909	0.1224	0.3133	0.0000	881.7753	881.7753	0.2852	0.0000	888.9049

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.4000e-004	0.0282	0.0109	1.2000e-004	3.5400e-003	2.4000e-004	3.7800e-003	9.7000e-004	2.3000e-004	1.2000e-003	0.0000	12.0351	12.0351	5.0000e-004	1.9100e-003	12.6159
Vendor	3.0400e-003	0.1404	0.0356	8.5000e-004	0.0322	1.3200e-003	0.0335	9.2800e-003	1.2700e-003	0.0106	0.0000	82.8271	82.8271	2.1400e-003	0.0122	86.5075
Worker	3.5500e-003	3.0100e-003	0.0386	1.2000e-004	0.0143	7.0000e-005	0.0144	3.8100e-003	6.0000e-005	3.8700e-003	0.0000	11.0702	11.0702	2.0000e-004	2.6000e-004	11.1530
Total	7.3300e-003	0.1716	0.0850	1.0900e-003	0.0501	1.6300e-003	0.0517	0.0141	1.5600e-003	0.0156	0.0000	105.9323	105.9323	2.8400e-003	0.0143	110.2764

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3600	0.0000	0.3600	0.0859	0.0000	0.0859	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1245	0.5994	4.8188	0.0100		0.0164	0.0164		0.0164	0.0164	0.0000	881.7743	881.7743	0.2852	0.0000	888.9039
Total	0.1245	0.5994	4.8188	0.0100	0.3600	0.0164	0.3764	0.0859	0.0164	0.1023	0.0000	881.7743	881.7743	0.2852	0.0000	888.9039

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.4000e-004	0.0282	0.0109	1.2000e-004	3.5400e-003	2.4000e-004	3.7800e-003	9.7000e-004	2.3000e-004	1.2000e-003	0.0000	12.0351	12.0351	5.0000e-004	1.9100e-003	12.6159
Vendor	3.0400e-003	0.1404	0.0356	8.5000e-004	0.0322	1.3200e-003	0.0335	9.2800e-003	1.2700e-003	0.0106	0.0000	82.8271	82.8271	2.1400e-003	0.0122	86.5075
Worker	3.5500e-003	3.0100e-003	0.0386	1.2000e-004	0.0143	7.0000e-005	0.0144	3.8100e-003	6.0000e-005	3.8700e-003	0.0000	11.0702	11.0702	2.0000e-004	2.6000e-004	11.1530
Total	7.3300e-003	0.1716	0.0850	1.0900e-003	0.0501	1.6300e-003	0.0517	0.0141	1.5600e-003	0.0156	0.0000	105.9323	105.9323	2.8400e-003	0.0143	110.2764

3.6 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0363	0.0000	1.0363	0.3208	0.0000	0.3208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8249	6.5331	6.1666	0.0201		0.2470	0.2470		0.2273	0.2273	0.0000	1,763.9271	1,763.9271	0.5705	0.0000	1,778.1894
Total	0.8249	6.5331	6.1666	0.0201	1.0363	0.2470	1.2834	0.3208	0.2273	0.5481	0.0000	1,763.9271	1,763.9271	0.5705	0.0000	1,778.1894

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3.6 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4800e-003	0.0566	0.0217	2.4000e-004	7.0700e-003	4.7000e-004	7.5500e-003	1.9400e-003	4.5000e-004	2.4000e-003	0.0000	23.6543	23.6543	9.7000e-004	3.7500e-003	24.7956
Vendor	5.8700e-003	0.2843	0.0695	1.6800e-003	0.0644	2.6100e-003	0.0670	0.0186	2.4900e-003	0.0211	0.0000	163.3977	163.3977	4.1500e-003	0.0240	170.6549
Worker	6.6200e-003	5.3200e-003	0.0717	2.3000e-004	0.0287	1.3000e-004	0.0288	7.6100e-003	1.2000e-004	7.7400e-003	0.0000	21.6696	21.6696	3.6000e-004	4.8000e-004	21.8223
Total	0.0140	0.3462	0.1629	2.1500e-003	0.1001	3.2100e-003	0.1034	0.0281	3.0600e-003	0.0312	0.0000	208.7216	208.7216	5.4800e-003	0.0282	217.2728

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4664	0.0000	0.4664	0.1444	0.0000	0.1444	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2489	1.1988	9.6376	0.0201		0.0328	0.0328		0.0328	0.0328	0.0000	1,763.9250	1,763.9250	0.5705	0.0000	1,778.1873
Total	0.2489	1.1988	9.6376	0.0201	0.4664	0.0328	0.4991	0.1444	0.0328	0.1771	0.0000	1,763.9250	1,763.9250	0.5705	0.0000	1,778.1873

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3.6 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4800e-003	0.0566	0.0217	2.4000e-004	7.0700e-003	4.7000e-004	7.5500e-003	1.9400e-003	4.5000e-004	2.4000e-003	0.0000	23.6543	23.6543	9.7000e-004	3.7500e-003	24.7956
Vendor	5.8700e-003	0.2843	0.0695	1.6800e-003	0.0644	2.6100e-003	0.0670	0.0186	2.4900e-003	0.0211	0.0000	163.3977	163.3977	4.1500e-003	0.0240	170.6549
Worker	6.6200e-003	5.3200e-003	0.0717	2.3000e-004	0.0287	1.3000e-004	0.0288	7.6100e-003	1.2000e-004	7.7400e-003	0.0000	21.6696	21.6696	3.6000e-004	4.8000e-004	21.8223
Total	0.0140	0.3462	0.1629	2.1500e-003	0.1001	3.2100e-003	0.1034	0.0281	3.0600e-003	0.0312	0.0000	208.7216	208.7216	5.4800e-003	0.0282	217.2728

3.6 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9174	0.0000	0.9174	0.2554	0.0000	0.2554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5813	4.2330	4.4928	0.0150		0.1573	0.1573		0.1447	0.1447	0.0000	1,319.5966	1,319.5966	0.4268	0.0000	1,330.2662
Total	0.5813	4.2330	4.4928	0.0150	0.9174	0.1573	1.0747	0.2554	0.1447	0.4001	0.0000	1,319.5966	1,319.5966	0.4268	0.0000	1,330.2662

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3.6 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-003	0.0420	0.0162	1.8000e-004	5.2900e-003	3.5000e-004	5.6500e-003	1.4500e-003	3.4000e-004	1.7900e-003	0.0000	17.3284	17.3284	7.1000e-004	2.7500e-003	18.1643
Vendor	4.2700e-003	0.2113	0.0507	1.2300e-003	0.0482	1.9500e-003	0.0501	0.0139	1.8600e-003	0.0158	0.0000	119.9033	119.9033	3.0100e-003	0.0176	125.2245
Worker	4.6300e-003	3.5300e-003	0.0497	1.7000e-004	0.0215	9.0000e-005	0.0216	5.7000e-003	9.0000e-005	5.7800e-003	0.0000	15.8202	15.8202	2.4000e-004	3.3000e-004	15.9259
Total	0.0100	0.2568	0.1166	1.5800e-003	0.0749	2.3900e-003	0.0773	0.0210	2.2900e-003	0.0233	0.0000	153.0519	153.0519	3.9600e-003	0.0207	159.3147

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4128	0.0000	0.4128	0.1149	0.0000	0.1149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1863	0.8972	7.2128	0.0150		0.0245	0.0245		0.0245	0.0245	0.0000	1,319.5950	1,319.5950	0.4268	0.0000	1,330.2646
Total	0.1863	0.8972	7.2128	0.0150	0.4128	0.0245	0.4374	0.1149	0.0245	0.1395	0.0000	1,319.5950	1,319.5950	0.4268	0.0000	1,330.2646

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3.6 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-003	0.0420	0.0162	1.8000e-004	5.2900e-003	3.5000e-004	5.6500e-003	1.4500e-003	3.4000e-004	1.7900e-003	0.0000	17.3284	17.3284	7.1000e-004	2.7500e-003	18.1643
Vendor	4.2700e-003	0.2113	0.0507	1.2300e-003	0.0482	1.9500e-003	0.0501	0.0139	1.8600e-003	0.0158	0.0000	119.9033	119.9033	3.0100e-003	0.0176	125.2245
Worker	4.6300e-003	3.5300e-003	0.0497	1.7000e-004	0.0215	9.0000e-005	0.0216	5.7000e-003	9.0000e-005	5.7800e-003	0.0000	15.8202	15.8202	2.4000e-004	3.3000e-004	15.9259
Total	0.0100	0.2568	0.1166	1.5800e-003	0.0749	2.3900e-003	0.0773	0.0210	2.2900e-003	0.0233	0.0000	153.0519	153.0519	3.9600e-003	0.0207	159.3147

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1237	1.0294	1.2343	2.8600e-003		0.0468	0.0468		0.0434	0.0434	0.0000	250.4252	250.4252	0.0761	0.0000	252.3285
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1237	1.0294	1.2343	2.8600e-003		0.0468	0.0468		0.0434	0.0434	0.0000	250.4252	250.4252	0.0761	0.0000	252.3285

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3.7 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-003	0.1248	0.0317	7.6000e-004	0.0286	1.1800e-003	0.0298	8.2500e-003	1.1300e-003	9.3800e-003	0.0000	73.6241	73.6241	1.9000e-003	0.0108	76.8955
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	5.2400e-003	0.1269	0.0592	8.5000e-004	0.0389	1.2300e-003	0.0401	0.0110	1.1800e-003	0.0121	0.0000	81.5313	81.5313	2.0400e-003	0.0110	84.8620

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0345	0.1495	1.6522	2.8600e-003		4.6000e-003	4.6000e-003		4.6000e-003	4.6000e-003	0.0000	250.4249	250.4249	0.0761	0.0000	252.3282
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0345	0.1495	1.6522	2.8600e-003		4.6000e-003	4.6000e-003		4.6000e-003	4.6000e-003	0.0000	250.4249	250.4249	0.0761	0.0000	252.3282

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3.7 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-003	0.1248	0.0317	7.6000e-004	0.0286	1.1800e-003	0.0298	8.2500e-003	1.1300e-003	9.3800e-003	0.0000	73.6241	73.6241	1.9000e-003	0.0108	76.8955
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	5.2400e-003	0.1269	0.0592	8.5000e-004	0.0389	1.2300e-003	0.0401	0.0110	1.1800e-003	0.0121	0.0000	81.5313	81.5313	2.0400e-003	0.0110	84.8620

3.7 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2394	1.9261	2.4616	5.7100e-003		0.0853	0.0853		0.0791	0.0791	0.0000	500.9668	500.9668	0.1522	0.0000	504.7712
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2394	1.9261	2.4616	5.7100e-003		0.0853	0.0853		0.0791	0.0791	0.0000	500.9668	500.9668	0.1522	0.0000	504.7712

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3.7 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2200e-003	0.2527	0.0618	1.4900e-003	0.0572	2.3200e-003	0.0595	0.0165	2.2200e-003	0.0187	0.0000	145.2424	145.2424	3.6900e-003	0.0213	151.6933
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	9.9500e-003	0.2565	0.1129	1.6600e-003	0.0777	2.4100e-003	0.0801	0.0219	2.3100e-003	0.0243	0.0000	160.7207	160.7207	3.9500e-003	0.0217	167.2806

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0690	0.2991	3.3043	5.7100e-003		9.2000e-003	9.2000e-003		9.2000e-003	9.2000e-003	0.0000	500.9662	500.9662	0.1522	0.0000	504.7706
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0690	0.2991	3.3043	5.7100e-003		9.2000e-003	9.2000e-003		9.2000e-003	9.2000e-003	0.0000	500.9662	500.9662	0.1522	0.0000	504.7706

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3.7 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2200e-003	0.2527	0.0618	1.4900e-003	0.0572	2.3200e-003	0.0595	0.0165	2.2200e-003	0.0187	0.0000	145.2424	145.2424	3.6900e-003	0.0213	151.6933
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	9.9500e-003	0.2565	0.1129	1.6600e-003	0.0777	2.4100e-003	0.0801	0.0219	2.3100e-003	0.0243	0.0000	160.7207	160.7207	3.9500e-003	0.0217	167.2806

3.7 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0375	0.2856	0.4045	9.5000e-004		0.0123	0.0123		0.0114	0.0114	0.0000	82.9346	82.9346	0.0252	0.0000	83.5640
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0375	0.2856	0.4045	9.5000e-004		0.0123	0.0123		0.0114	0.0114	0.0000	82.9346	82.9346	0.0252	0.0000	83.5640

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

3.7 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0416	9.9800e-003	2.4000e-004	9.4800e-003	3.8000e-004	9.8600e-003	2.7300e-003	3.7000e-004	3.1000e-003	0.0000	23.5838	23.5838	5.9000e-004	3.4600e-003	24.6305
Worker	7.3000e-004	5.6000e-004	7.8500e-003	3.0000e-005	3.3900e-003	1.0000e-005	3.4100e-003	9.0000e-004	1.0000e-005	9.1000e-004	0.0000	2.5005	2.5005	4.0000e-005	5.0000e-005	2.5172
Total	1.5700e-003	0.0421	0.0178	2.7000e-004	0.0129	3.9000e-004	0.0133	3.6300e-003	3.8000e-004	4.0100e-003	0.0000	26.0843	26.0843	6.3000e-004	3.5100e-003	27.1476

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.0495	0.5472	9.5000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	82.9345	82.9345	0.0252	0.0000	83.5639
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0114	0.0495	0.5472	9.5000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	82.9345	82.9345	0.0252	0.0000	83.5639

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0416	9.9800e-003	2.4000e-004	9.4800e-003	3.8000e-004	9.8600e-003	2.7300e-003	3.7000e-004	3.1000e-003	0.0000	23.5838	23.5838	5.9000e-004	3.4600e-003	24.6305
Worker	7.3000e-004	5.6000e-004	7.8500e-003	3.0000e-005	3.3900e-003	1.0000e-005	3.4100e-003	9.0000e-004	1.0000e-005	9.1000e-004	0.0000	2.5005	2.5005	4.0000e-005	5.0000e-005	2.5172
Total	1.5700e-003	0.0421	0.0178	2.7000e-004	0.0129	3.9000e-004	0.0133	3.6300e-003	3.8000e-004	4.0100e-003	0.0000	26.0843	26.0843	6.3000e-004	3.5100e-003	27.1476

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

6.2 Area by SubCategory

Unmitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail**7.1 Mitigation Measures Water**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

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

Cajon Pass High-Speed Rail Project - Construction of Segment 4a

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	288.48	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project related Landuse
- Construction Phase - Project specific schedule
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Trips and VMT - Project specific trips
- Demolition -
- Grading - Project specific material usage
- Vehicle Trips - Construction only

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

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Area Mitigation - Construction only

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	46.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	158.00
tblConstructionPhase	NumDays	180.00	158.00
tblConstructionPhase	NumDays	465.00	499.00
tblConstructionPhase	NumDays	4,650.00	314.00
tblConstructionPhase	NumDays	330.00	185.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0

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tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	621,755.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.00	288.48
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00

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

tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	19.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripLength	10.80	35.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	63.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	43.00	2.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.6521	14.4976	13.7484	0.0468	1.8804	0.5329	2.4133	0.3516	0.5009	0.8526	0.0000	4,189.308 9	4,189.308 9	0.9566	0.1320	4,252.563 4
2024	1.5392	14.2533	12.6018	0.0490	1.2492	0.4699	1.7191	0.3202	0.4386	0.7588	0.0000	4,436.629 7	4,436.629 7	0.9690	0.1989	4,520.126 0
2025	0.0838	0.7954	0.6782	3.1200e-003	0.5980	0.0229	0.6210	0.0820	0.0212	0.1032	0.0000	285.8523	285.8523	0.0622	0.0164	292.2852
Maximum	1.6521	14.4976	13.7484	0.0490	1.8804	0.5329	2.4133	0.3516	0.5009	0.8526	0.0000	4,436.629 7	4,436.629 7	0.9690	0.1989	4,520.126 0

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.5062	3.8431	19.6854	0.0468	1.0283	0.0763	1.1046	0.2086	0.0756	0.2841	0.0000	4,189.304 9	4,189.304 9	0.9566	0.1320	4,252.559 4
2024	0.5048	4.7674	18.4684	0.0490	0.8192	0.0823	0.9015	0.2152	0.0812	0.2964	0.0000	4,436.625 9	4,436.625 9	0.9690	0.1989	4,520.122 3
2025	0.0309	0.3481	1.0525	3.1200e-003	0.2896	5.4600e-003	0.2950	0.0426	5.3700e-003	0.0479	0.0000	285.8521	285.8521	0.0622	0.0164	292.2850
Maximum	0.5062	4.7674	19.6854	0.0490	1.0283	0.0823	1.1046	0.2152	0.0812	0.2964	0.0000	4,436.625 9	4,436.625 9	0.9690	0.1989	4,520.122 3

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	68.19	69.68	-45.06	0.00	42.67	84.00	51.59	38.15	83.12	63.35	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2023	9-30-2023	8.0651	2.1381
2	10-1-2023	12-31-2023	8.1103	2.1832
3	1-1-2024	3-31-2024	5.2123	1.5777
4	4-1-2024	6-30-2024	4.9809	1.4971
5	7-1-2024	9-30-2024	2.7479	1.0445
6	10-1-2024	12-31-2024	2.7556	1.0722
7	1-1-2025	3-31-2025	0.8609	0.3708
		Highest	8.1103	2.1832

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

2.2 Overall Operational

Unmitigated Operational

[illegible]

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2023	1/1/2024	6	158	
2	Site Preparation	Site Preparation	7/1/2023	1/1/2024	6	158	
3	Grading	Grading	7/1/2023	2/1/2025	6	499	

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

4	Building Construction	Building Construction	7/1/2023	7/1/2024	6	314
5	Paving	Paving	7/1/2023	2/1/2024	6	185

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 935.63****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	5	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	10	4.00	402	0.38
Grading	Off-Highway Trucks	6	4.00	402	0.38

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

Grading	Rubber Tired Dozers	1	2.00	247	0.40
Grading	Scrapers	2	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	6	8.00	84	0.74
Building Construction	Off-Highway Trucks	6	4.00	402	0.38
Building Construction	Off-Highway Trucks	6	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	2.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	3	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	2.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	17	5.00	0.00	8,187.00	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	25	8.00	19.00	77,719.00	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	28	10.00	15.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	7.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8913	0.0000	0.8913	0.1350	0.0000	0.1350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3460	2.6428	2.9842	8.0700e-003		0.1110	0.1110		0.1057	0.1057	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083
Total	0.3460	2.6428	2.9842	8.0700e-003	0.8913	0.1110	1.0023	0.1350	0.1057	0.2407	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083

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

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3800e-003	0.2799	0.1077	1.2100e-003	0.0351	2.3800e-003	0.0375	9.6400e-003	2.2800e-003	0.0119	0.0000	119.3472	119.3472	4.9600e-003	0.0189	125.1071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	9.9200e-003	0.2820	0.1352	1.3000e-003	0.0453	2.4300e-003	0.0477	0.0124	2.3300e-003	0.0147	0.0000	127.2544	127.2544	5.1000e-003	0.0191	133.0736

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4011	0.0000	0.4011	0.0607	0.0000	0.0607	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0940	0.4073	4.1757	8.0700e-003		0.0125	0.0125		0.0125	0.0125	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075
Total	0.0940	0.4073	4.1757	8.0700e-003	0.4011	0.0125	0.4136	0.0607	0.0125	0.0733	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3800e-003	0.2799	0.1077	1.2100e-003	0.0351	2.3800e-003	0.0375	9.6400e-003	2.2800e-003	0.0119	0.0000	119.3472	119.3472	4.9600e-003	0.0189	125.1071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	9.9200e-003	0.2820	0.1352	1.3000e-003	0.0453	2.4300e-003	0.0477	0.0124	2.3300e-003	0.0147	0.0000	127.2544	127.2544	5.1000e-003	0.0191	133.0736

3.2 Demolition - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.6800e-003	0.0000	5.6800e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1300e-003	0.0157	0.0189	5.0000e-005		6.3000e-004	6.3000e-004		6.0000e-004	6.0000e-004	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151
Total	2.1300e-003	0.0157	0.0189	5.0000e-005	5.6800e-003	6.3000e-004	6.3100e-003	8.6000e-004	6.0000e-004	1.4600e-003	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151

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

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7900e-003	6.9000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7470	0.7470	3.0000e-005	1.2000e-004	0.7831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0493	0.0493	0.0000	0.0000	0.0496
Total	7.0000e-005	1.8000e-003	8.5000e-004	1.0000e-005	2.9000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.7963	0.7963	3.0000e-005	1.2000e-004	0.8327

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5500e-003	0.0000	2.5500e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	2.5900e-003	0.0266	5.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151
Total	6.0000e-004	2.5900e-003	0.0266	5.0000e-005	2.5500e-003	8.0000e-005	2.6300e-003	3.9000e-004	8.0000e-005	4.7000e-004	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7900e-003	6.9000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7470	0.7470	3.0000e-005	1.2000e-004	0.7831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0493	0.0493	0.0000	0.0000	0.0496
Total	7.0000e-005	1.8000e-003	8.5000e-004	1.0000e-005	2.9000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.7963	0.7963	3.0000e-005	1.2000e-004	0.8327

3.3 Site Preparation - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1305	0.9608	0.9496	3.3600e-003		0.0363	0.0363		0.0334	0.0334	0.0000	294.9144	294.9144	0.0954	0.0000	297.2990
Total	0.1305	0.9608	0.9496	3.3600e-003	0.0000	0.0363	0.0363	0.0000	0.0334	0.0334	0.0000	294.9144	294.9144	0.0954	0.0000	297.2990

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

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0234	5.9400e-003	1.4000e-004	5.3700e-003	2.2000e-004	5.5900e-003	1.5500e-003	2.1000e-004	1.7600e-003	0.0000	13.8045	13.8045	3.6000e-004	2.0300e-003	14.4179
Worker	2.0300e-003	1.7200e-003	0.0220	7.0000e-005	8.1900e-003	4.0000e-005	8.2300e-003	2.1800e-003	4.0000e-005	2.2100e-003	0.0000	6.3258	6.3258	1.2000e-004	1.5000e-004	6.3732
Total	2.5400e-003	0.0251	0.0280	2.1000e-004	0.0136	2.6000e-004	0.0138	3.7300e-003	2.5000e-004	3.9700e-003	0.0000	20.1303	20.1303	4.8000e-004	2.1800e-003	20.7911

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.1779	1.5797	3.3600e-003		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	294.9141	294.9141	0.0954	0.0000	297.2986
Total	0.0411	0.1779	1.5797	3.3600e-003	0.0000	5.4700e-003	5.4700e-003	0.0000	5.4700e-003	5.4700e-003	0.0000	294.9141	294.9141	0.0954	0.0000	297.2986

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

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0234	5.9400e-003	1.4000e-004	5.3700e-003	2.2000e-004	5.5900e-003	1.5500e-003	2.1000e-004	1.7600e-003	0.0000	13.8045	13.8045	3.6000e-004	2.0300e-003	14.4179
Worker	2.0300e-003	1.7200e-003	0.0220	7.0000e-005	8.1900e-003	4.0000e-005	8.2300e-003	2.1800e-003	4.0000e-005	2.2100e-003	0.0000	6.3258	6.3258	1.2000e-004	1.5000e-004	6.3732
Total	2.5400e-003	0.0251	0.0280	2.1000e-004	0.0136	2.6000e-004	0.0138	3.7300e-003	2.5000e-004	3.9700e-003	0.0000	20.1303	20.1303	4.8000e-004	2.1800e-003	20.7911

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2000e-004	5.7200e-003	5.9900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.0000e-004	2.0000e-004	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943
Total	8.2000e-004	5.7200e-003	5.9900e-003	2.0000e-005	0.0000	2.1000e-004	2.1000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943

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

3.3 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.5000e-004	4.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0867	0.0867	0.0000	1.0000e-005	0.0906
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0394	0.0394	0.0000	0.0000	0.0397
Total	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1262	0.1262	0.0000	1.0000e-005	0.1303

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-004	1.1300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943
Total	2.6000e-004	1.1300e-003	0.0101	2.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943

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

3.3 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.5000e-004	4.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0867	0.0867	0.0000	1.0000e-005	0.0906
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0394	0.0394	0.0000	0.0000	0.0397
Total	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1262	0.1262	0.0000	1.0000e-005	0.1303

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6580	0.0000	0.6580	0.1252	0.0000	0.1252	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4781	3.9832	3.4990	0.0115		0.1491	0.1491		0.1372	0.1372	0.0000	1,007.1902	1,007.1902	0.3258	0.0000	1,015.3338
Total	0.4781	3.9832	3.4990	0.0115	0.6580	0.1491	0.8071	0.1252	0.1372	0.2624	0.0000	1,007.1902	1,007.1902	0.3258	0.0000	1,015.3338

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0254	1.1316	0.3681	5.2500e-003	0.1580	0.0107	0.1686	0.0434	0.0102	0.0536	0.0000	519.0780	519.0780	0.0219	0.0823	544.1426
Vendor	3.2100e-003	0.1482	0.0376	9.0000e-004	0.0340	1.4000e-003	0.0354	9.8000e-003	1.3400e-003	0.0111	0.0000	87.4286	87.4286	2.2600e-003	0.0129	91.3134
Worker	4.0600e-003	3.4400e-003	0.0441	1.4000e-004	0.0164	8.0000e-005	0.0165	4.3500e-003	7.0000e-005	4.4200e-003	0.0000	12.6516	12.6516	2.3000e-004	3.0000e-004	12.7463
Total	0.0326	1.2832	0.4498	6.2900e-003	0.2084	0.0121	0.2205	0.0576	0.0116	0.0692	0.0000	619.1582	619.1582	0.0244	0.0954	648.2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2961	0.0000	0.2961	0.0563	0.0000	0.0563	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1420	0.6752	5.4598	0.0115		0.0187	0.0187		0.0187	0.0187	0.0000	1,007.1890	1,007.1890	0.3258	0.0000	1,015.3326
Total	0.1420	0.6752	5.4598	0.0115	0.2961	0.0187	0.3148	0.0563	0.0187	0.0750	0.0000	1,007.1890	1,007.1890	0.3258	0.0000	1,015.3326

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0254	1.1316	0.3681	5.2500e-003	0.1580	0.0107	0.1686	0.0434	0.0102	0.0536	0.0000	519.0780	519.0780	0.0219	0.0823	544.1426
Vendor	3.2100e-003	0.1482	0.0376	9.0000e-004	0.0340	1.4000e-003	0.0354	9.8000e-003	1.3400e-003	0.0111	0.0000	87.4286	87.4286	2.2600e-003	0.0129	91.3134
Worker	4.0600e-003	3.4400e-003	0.0441	1.4000e-004	0.0164	8.0000e-005	0.0165	4.3500e-003	7.0000e-005	4.4200e-003	0.0000	12.6516	12.6516	2.3000e-004	3.0000e-004	12.7463
Total	0.0326	1.2832	0.4498	6.2900e-003	0.2084	0.0121	0.2205	0.0576	0.0116	0.0692	0.0000	619.1582	619.1582	0.0244	0.0954	648.2023

3.4 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7762	0.0000	0.7762	0.1901	0.0000	0.1901	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9333	7.4041	6.9183	0.0229		0.2757	0.2757		0.2537	0.2537	0.0000	2,014.7619	2,014.7619	0.6516	0.0000	2,031.0522
Total	0.9333	7.4041	6.9183	0.0229	0.7762	0.2757	1.0519	0.1901	0.2537	0.4438	0.0000	2,014.7619	2,014.7619	0.6516	0.0000	2,031.0522

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0503	2.2701	0.7376	0.0103	0.3160	0.0210	0.3370	0.0868	0.0201	0.1069	0.0000	1,020.160 9	1,020.160 9	0.0426	0.1617	1,069.406 4
Vendor	6.2000e-003	0.3001	0.0733	1.7700e-003	0.0680	2.7500e-003	0.0707	0.0196	2.6300e-003	0.0222	0.0000	172.4754	172.4754	4.3800e-003	0.0253	180.1358
Worker	7.5700e-003	6.0800e-003	0.0819	2.6000e-004	0.0328	1.5000e-004	0.0329	8.7000e-003	1.4000e-004	8.8400e-003	0.0000	24.7653	24.7653	4.2000e-004	5.5000e-004	24.9398
Total	0.0641	2.5763	0.8928	0.0124	0.4167	0.0239	0.4406	0.1151	0.0229	0.1380	0.0000	1,217.401 5	1,217.401 5	0.0474	0.1876	1,274.481 9

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3493	0.0000	0.3493	0.0856	0.0000	0.0856	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2839	1.3503	10.9195	0.0229		0.0374	0.0374		0.0374	0.0374	0.0000	2,014.759 5	2,014.759 5	0.6516	0.0000	2,031.049 8
Total	0.2839	1.3503	10.9195	0.0229	0.3493	0.0374	0.3867	0.0856	0.0374	0.1230	0.0000	2,014.759 5	2,014.759 5	0.6516	0.0000	2,031.049 8

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0503	2.2701	0.7376	0.0103	0.3160	0.0210	0.3370	0.0868	0.0201	0.1069	0.0000	1,020.160 9	1,020.160 9	0.0426	0.1617	1,069.406 4
Vendor	6.2000e-003	0.3001	0.0733	1.7700e-003	0.0680	2.7500e-003	0.0707	0.0196	2.6300e-003	0.0222	0.0000	172.4754	172.4754	4.3800e-003	0.0253	180.1358
Worker	7.5700e-003	6.0800e-003	0.0819	2.6000e-004	0.0328	1.5000e-004	0.0329	8.7000e-003	1.4000e-004	8.8400e-003	0.0000	24.7653	24.7653	4.2000e-004	5.5000e-004	24.9398
Total	0.0641	2.5763	0.8928	0.0124	0.4167	0.0239	0.4406	0.1151	0.0229	0.1380	0.0000	1,217.401 5	1,217.401 5	0.0474	0.1876	1,274.481 9

3.4 Grading - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5609	0.0000	0.5609	0.0718	0.0000	0.0718	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0782	0.5678	0.5994	2.0500e-003		0.0208	0.0208		0.0192	0.0192	0.0000	179.5827	179.5827	0.0581	0.0000	181.0348
Total	0.0782	0.5678	0.5994	2.0500e-003	0.5609	0.0208	0.5817	0.0718	0.0192	0.0909	0.0000	179.5827	179.5827	0.0581	0.0000	181.0348

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

3.4 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4500e-003	0.2006	0.0657	9.0000e-004	0.0282	1.8700e-003	0.0300	7.7400e-003	1.7900e-003	9.5300e-003	0.0000	89.0353	89.0353	3.6900e-003	0.0141	93.3325
Vendor	5.4000e-004	0.0266	6.3800e-003	1.5000e-004	6.0600e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.3000e-004	1.9800e-003	0.0000	15.0800	15.0800	3.8000e-004	2.2100e-003	15.7493
Worker	6.3000e-004	4.8000e-004	6.7600e-003	2.0000e-005	2.9200e-003	1.0000e-005	2.9400e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.1542	2.1542	3.0000e-005	5.0000e-005	2.1686
Total	5.6200e-003	0.2277	0.0788	1.0700e-003	0.0372	2.1300e-003	0.0393	0.0103	2.0300e-003	0.0123	0.0000	106.2695	106.2695	4.1000e-003	0.0164	111.2504

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2524	0.0000	0.2524	0.0323	0.0000	0.0323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.1204	0.9737	2.0500e-003		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	179.5825	179.5825	0.0581	0.0000	181.0345
Total	0.0253	0.1204	0.9737	2.0500e-003	0.2524	3.3400e-003	0.2557	0.0323	3.3400e-003	0.0356	0.0000	179.5825	179.5825	0.0581	0.0000	181.0345

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4500e-003	0.2006	0.0657	9.0000e-004	0.0282	1.8700e-003	0.0300	7.7400e-003	1.7900e-003	9.5300e-003	0.0000	89.0353	89.0353	3.6900e-003	0.0141	93.3325
Vendor	5.4000e-004	0.0266	6.3800e-003	1.5000e-004	6.0600e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.3000e-004	1.9800e-003	0.0000	15.0800	15.0800	3.8000e-004	2.2100e-003	15.7493
Worker	6.3000e-004	4.8000e-004	6.7600e-003	2.0000e-005	2.9200e-003	1.0000e-005	2.9400e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.1542	2.1542	3.0000e-005	5.0000e-005	2.1686
Total	5.6200e-003	0.2277	0.0788	1.0700e-003	0.0372	2.1300e-003	0.0393	0.0103	2.0300e-003	0.0123	0.0000	106.2695	106.2695	4.1000e-003	0.0164	111.2504

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5325	4.2565	4.5223	0.0122		0.1809	0.1809		0.1726	0.1726	0.0000	1,066.1288	1,066.1288	0.2548	0.0000	1,072.4986
Total	0.5325	4.2565	4.5223	0.0122		0.1809	0.1809		0.1726	0.1726	0.0000	1,066.1288	1,066.1288	0.2548	0.0000	1,072.4986

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1170	0.0297	7.1000e-004	0.0268	1.1000e-003	0.0279	7.7300e-003	1.0600e-003	8.7900e-003	0.0000	69.0226	69.0226	1.7800e-003	0.0101	72.0896
Worker	5.0700e-003	4.3000e-003	0.0551	1.7000e-004	0.0205	1.0000e-004	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.8145	15.8145	2.9000e-004	3.7000e-004	15.9329
Total	7.6100e-003	0.1213	0.0848	8.8000e-004	0.0473	1.2000e-003	0.0485	0.0132	1.1500e-003	0.0143	0.0000	84.8371	84.8371	2.0700e-003	0.0105	88.0225

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.1276	1,066.1276	0.2548	0.0000	1,072.4974
Total	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.1276	1,066.1276	0.2548	0.0000	1,072.4974

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1170	0.0297	7.1000e-004	0.0268	1.1000e-003	0.0279	7.7300e-003	1.0600e-003	8.7900e-003	0.0000	69.0226	69.0226	1.7800e-003	0.0101	72.0896
Worker	5.0700e-003	4.3000e-003	0.0551	1.7000e-004	0.0205	1.0000e-004	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.8145	15.8145	2.9000e-004	3.7000e-004	15.9329
Total	7.6100e-003	0.1213	0.0848	8.8000e-004	0.0473	1.2000e-003	0.0485	0.0132	1.1500e-003	0.0143	0.0000	84.8371	84.8371	2.0700e-003	0.0105	88.0225

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5122	3.9696	4.4902	0.0122		0.1618	0.1618		0.1541	0.1541	0.0000	1,066.3578	1,066.3578	0.2537	0.0000	1,072.7011
Total	0.5122	3.9696	4.4902	0.0122		0.1618	0.1618		0.1541	0.1541	0.0000	1,066.3578	1,066.3578	0.2537	0.0000	1,072.7011

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1185	0.0289	7.0000e-004	0.0268	1.0900e-003	0.0279	7.7300e-003	1.0400e-003	8.7700e-003	0.0000	68.0824	68.0824	1.7300e-003	0.0100	71.1062
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	7.1800e-003	0.1223	0.0801	8.7000e-004	0.0473	1.1800e-003	0.0485	0.0132	1.1300e-003	0.0143	0.0000	83.5607	83.5607	1.9900e-003	0.0103	86.6936

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.3566	1,066.3566	0.2537	0.0000	1,072.6998
Total	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.3566	1,066.3566	0.2537	0.0000	1,072.6998

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1185	0.0289	7.0000e-004	0.0268	1.0900e-003	0.0279	7.7300e-003	1.0400e-003	8.7700e-003	0.0000	68.0824	68.0824	1.7300e-003	0.0100	71.1062
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	7.1800e-003	0.1223	0.0801	8.7000e-004	0.0473	1.1800e-003	0.0485	0.0132	1.1300e-003	0.0143	0.0000	83.5607	83.5607	1.9900e-003	0.0103	86.6936

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1101	0.8872	1.0707	2.6200e-003		0.0390	0.0390		0.0362	0.0362	0.0000	230.0671	230.0671	0.0696	0.0000	231.8058
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1101	0.8872	1.0707	2.6200e-003		0.0390	0.0390		0.0362	0.0362	0.0000	230.0671	230.0671	0.0696	0.0000	231.8058

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0546	0.0139	3.3000e-004	0.0125	5.1000e-004	0.0130	3.6100e-003	4.9000e-004	4.1000e-003	0.0000	32.2105	32.2105	8.3000e-004	4.7300e-003	33.6418
Worker	1.0100e-003	8.6000e-004	0.0110	3.0000e-005	4.1000e-003	2.0000e-005	4.1200e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.1629	3.1629	6.0000e-005	7.0000e-005	3.1866
Total	2.1900e-003	0.0555	0.0249	3.6000e-004	0.0166	5.3000e-004	0.0172	4.7000e-003	5.1000e-004	5.2100e-003	0.0000	35.3734	35.3734	8.9000e-004	4.8000e-003	36.8284

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.1372	1.4770	2.6200e-003		4.2200e-003	4.2200e-003		4.2200e-003	4.2200e-003	0.0000	230.0669	230.0669	0.0696	0.0000	231.8056
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.1372	1.4770	2.6200e-003		4.2200e-003	4.2200e-003		4.2200e-003	4.2200e-003	0.0000	230.0669	230.0669	0.0696	0.0000	231.8056

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0546	0.0139	3.3000e-004	0.0125	5.1000e-004	0.0130	3.6100e-003	4.9000e-004	4.1000e-003	0.0000	32.2105	32.2105	8.3000e-004	4.7300e-003	33.6418
Worker	1.0100e-003	8.6000e-004	0.0110	3.0000e-005	4.1000e-003	2.0000e-005	4.1200e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.1629	3.1629	6.0000e-005	7.0000e-005	3.1866
Total	2.1900e-003	0.0555	0.0249	3.6000e-004	0.0166	5.3000e-004	0.0172	4.7000e-003	5.1000e-004	5.2100e-003	0.0000	35.3734	35.3734	8.9000e-004	4.8000e-003	36.8284

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.8600e-003	2.4100e-003	6.0000e-005	2.2300e-003	9.0000e-005	2.3200e-003	6.4000e-004	9.0000e-005	7.3000e-004	0.0000	5.6663	5.6663	1.4000e-004	8.3000e-004	5.9180
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.7000e-004	0.0100	4.2400e-003	7.0000e-005	2.9600e-003	9.0000e-005	3.0500e-003	8.3000e-004	9.0000e-005	9.3000e-004	0.0000	6.2184	6.2184	1.5000e-004	8.4000e-004	6.4740

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.8600e-003	2.4100e-003	6.0000e-005	2.2300e-003	9.0000e-005	2.3200e-003	6.4000e-004	9.0000e-005	7.3000e-004	0.0000	5.6663	5.6663	1.4000e-004	8.3000e-004	5.9180
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.7000e-004	0.0100	4.2400e-003	7.0000e-005	2.9600e-003	9.0000e-005	3.0500e-003	8.3000e-004	9.0000e-005	9.3000e-004	0.0000	6.2184	6.2184	1.5000e-004	8.4000e-004	6.4740

Cajon Pass High-Speed Rail Project - Construction of Segment 4a - San Bernardino-Mojave Desert County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

6.2 Area by SubCategory

Unmitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail**7.1 Mitigation Measures Water**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 4a - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 4a - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Cajon Pass High-Speed Rail Project - Construction of Segment 4a - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Cajon Pass High-Speed Rail Project - Construction of Segment 4b - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cajon Pass High-Speed Rail Project - Construction of Segment 4b****San Bernardino-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	288.48	0.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project related Landuse

Construction Phase - Project specific schedule

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Trips and VMT - Project specific trips

Demolition -

Grading - Project specific material usage

Vehicle Trips - Construction only

Cajon Pass High-Speed Rail Project - Construction of Segment 4b - San Bernardino-South Coast County, Annual

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

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Area Mitigation - Construction only

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	46.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Cajon Pass High-Speed Rail Project - Construction of Segment 4b - San Bernardino-South Coast County, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	4,650.00	314.00
tblConstructionPhase	NumDays	300.00	158.00
tblConstructionPhase	NumDays	465.00	499.00
tblConstructionPhase	NumDays	330.00	185.00
tblConstructionPhase	NumDays	180.00	158.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	1.98E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0

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

tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	621,755.00
tblLandUse	LotAcreage	0.00	288.48
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00

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

tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	19.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	63.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	43.00	2.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.6521	14.4976	13.7484	0.0468	1.8609	0.5329	2.3938	0.3486	0.5009	0.8496	0.0000	4,189.308 9	4,189.308 9	0.9566	0.1320	4,252.563 4
2024	1.5392	14.2533	12.6018	0.0490	1.2406	0.4699	1.7105	0.3189	0.4386	0.7575	0.0000	4,436.629 7	4,436.629 7	0.9690	0.1989	4,520.126 0
2025	0.0838	0.7954	0.6782	3.1200e-003	0.5895	0.0229	0.6125	0.0807	0.0212	0.1019	0.0000	285.8523	285.8523	0.0622	0.0164	292.2852
Maximum	1.6521	14.4976	13.7484	0.0490	1.8609	0.5329	2.3938	0.3486	0.5009	0.8496	0.0000	4,436.629 7	4,436.629 7	0.9690	0.1989	4,520.126 0

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.5062	3.8431	19.6854	0.0468	1.0195	0.0763	1.0958	0.2072	0.0756	0.2828	0.0000	4,189.304 9	4,189.304 9	0.9566	0.1320	4,252.559 4
2024	0.5048	4.7674	18.4684	0.0490	0.8153	0.0823	0.8976	0.2146	0.0812	0.2958	0.0000	4,436.625 9	4,436.625 9	0.9690	0.1989	4,520.122 3
2025	0.0309	0.3481	1.0525	3.1200e-003	0.2857	5.4600e-003	0.2912	0.0420	5.3700e-003	0.0474	0.0000	285.8521	285.8521	0.0622	0.0164	292.2850
Maximum	0.5062	4.7674	19.6854	0.0490	1.0195	0.0823	1.0958	0.2146	0.0812	0.2958	0.0000	4,436.625 9	4,436.625 9	0.9690	0.1989	4,520.122 3

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	68.19	69.68	-45.06	0.00	42.55	84.00	51.56	38.02	83.12	63.38	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2023	9-30-2023	8.0651	2.1381
2	10-1-2023	12-31-2023	8.1103	2.1832
3	1-1-2024	3-31-2024	5.2123	1.5777
4	4-1-2024	6-30-2024	4.9809	1.4971
5	7-1-2024	9-30-2024	2.7479	1.0445
6	10-1-2024	12-31-2024	2.7556	1.0722
7	1-1-2025	3-31-2025	0.8609	0.3708
		Highest	8.1103	2.1832

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2023	1/1/2024	6	158	
2	Site Preparation	Site Preparation	7/1/2023	1/1/2024	6	158	
3	Grading	Grading	7/1/2023	2/1/2025	6	499	

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4	Building Construction	Building Construction	7/1/2023	7/1/2024	6	314
5	Paving	Paving	7/1/2023	2/1/2024	6	185

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 935.63****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	5	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	10	4.00	402	0.38
Grading	Off-Highway Trucks	6	4.00	402	0.38

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Grading	Rubber Tired Dozers	1	2.00	247	0.40
Grading	Scrapers	2	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	6	8.00	84	0.74
Building Construction	Off-Highway Trucks	6	4.00	402	0.38
Building Construction	Off-Highway Trucks	6	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	2.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	3	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	2.00	97	0.37

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	17	5.00	0.00	8,187.00	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	25	8.00	19.00	77,719.00	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	28	10.00	15.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	7.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8803	0.0000	0.8803	0.1333	0.0000	0.1333	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3460	2.6428	2.9842	8.0700e-003		0.1110	0.1110		0.1057	0.1057	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083
Total	0.3460	2.6428	2.9842	8.0700e-003	0.8803	0.1110	0.9913	0.1333	0.1057	0.2390	0.0000	704.2548	704.2548	0.1781	0.0000	708.7083

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3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3800e-003	0.2799	0.1077	1.2100e-003	0.0351	2.3800e-003	0.0375	9.6400e-003	2.2800e-003	0.0119	0.0000	119.3472	119.3472	4.9600e-003	0.0189	125.1071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	9.9200e-003	0.2820	0.1352	1.3000e-003	0.0453	2.4300e-003	0.0477	0.0124	2.3300e-003	0.0147	0.0000	127.2544	127.2544	5.1000e-003	0.0191	133.0736

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3961	0.0000	0.3961	0.0600	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0940	0.4073	4.1757	8.0700e-003		0.0125	0.0125		0.0125	0.0125	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075
Total	0.0940	0.4073	4.1757	8.0700e-003	0.3961	0.0125	0.4087	0.0600	0.0125	0.0725	0.0000	704.2539	704.2539	0.1781	0.0000	708.7075

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3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3800e-003	0.2799	0.1077	1.2100e-003	0.0351	2.3800e-003	0.0375	9.6400e-003	2.2800e-003	0.0119	0.0000	119.3472	119.3472	4.9600e-003	0.0189	125.1071
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5400e-003	2.1500e-003	0.0276	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7600e-003	0.0000	7.9073	7.9073	1.4000e-004	1.9000e-004	7.9665
Total	9.9200e-003	0.2820	0.1352	1.3000e-003	0.0453	2.4300e-003	0.0477	0.0124	2.3300e-003	0.0147	0.0000	127.2544	127.2544	5.1000e-003	0.0191	133.0736

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.6100e-003	0.0000	5.6100e-003	8.5000e-004	0.0000	8.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1300e-003	0.0157	0.0189	5.0000e-005		6.3000e-004	6.3000e-004		6.0000e-004	6.0000e-004	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151
Total	2.1300e-003	0.0157	0.0189	5.0000e-005	5.6100e-003	6.3000e-004	6.2400e-003	8.5000e-004	6.0000e-004	1.4500e-003	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151

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3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7900e-003	6.9000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7470	0.7470	3.0000e-005	1.2000e-004	0.7831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0493	0.0493	0.0000	0.0000	0.0496
Total	7.0000e-005	1.8000e-003	8.5000e-004	1.0000e-005	2.9000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.7963	0.7963	3.0000e-005	1.2000e-004	0.8327

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5200e-003	0.0000	2.5200e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	2.5900e-003	0.0266	5.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151
Total	6.0000e-004	2.5900e-003	0.0266	5.0000e-005	2.5200e-003	8.0000e-005	2.6000e-003	3.8000e-004	8.0000e-005	4.6000e-004	0.0000	4.4868	4.4868	1.1300e-003	0.0000	4.5151

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3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.7900e-003	6.9000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7470	0.7470	3.0000e-005	1.2000e-004	0.7831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0493	0.0493	0.0000	0.0000	0.0496
Total	7.0000e-005	1.8000e-003	8.5000e-004	1.0000e-005	2.9000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.7963	0.7963	3.0000e-005	1.2000e-004	0.8327

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1305	0.9608	0.9496	3.3600e-003		0.0363	0.0363		0.0334	0.0334	0.0000	294.9144	294.9144	0.0954	0.0000	297.2990
Total	0.1305	0.9608	0.9496	3.3600e-003	0.0000	0.0363	0.0363	0.0000	0.0334	0.0334	0.0000	294.9144	294.9144	0.0954	0.0000	297.2990

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3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0234	5.9400e-003	1.4000e-004	5.3700e-003	2.2000e-004	5.5900e-003	1.5500e-003	2.1000e-004	1.7600e-003	0.0000	13.8045	13.8045	3.6000e-004	2.0300e-003	14.4179
Worker	2.0300e-003	1.7200e-003	0.0220	7.0000e-005	8.1900e-003	4.0000e-005	8.2300e-003	2.1800e-003	4.0000e-005	2.2100e-003	0.0000	6.3258	6.3258	1.2000e-004	1.5000e-004	6.3732
Total	2.5400e-003	0.0251	0.0280	2.1000e-004	0.0136	2.6000e-004	0.0138	3.7300e-003	2.5000e-004	3.9700e-003	0.0000	20.1303	20.1303	4.8000e-004	2.1800e-003	20.7911

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.1779	1.5797	3.3600e-003		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	294.9141	294.9141	0.0954	0.0000	297.2986
Total	0.0411	0.1779	1.5797	3.3600e-003	0.0000	5.4700e-003	5.4700e-003	0.0000	5.4700e-003	5.4700e-003	0.0000	294.9141	294.9141	0.0954	0.0000	297.2986

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3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0234	5.9400e-003	1.4000e-004	5.3700e-003	2.2000e-004	5.5900e-003	1.5500e-003	2.1000e-004	1.7600e-003	0.0000	13.8045	13.8045	3.6000e-004	2.0300e-003	14.4179
Worker	2.0300e-003	1.7200e-003	0.0220	7.0000e-005	8.1900e-003	4.0000e-005	8.2300e-003	2.1800e-003	4.0000e-005	2.2100e-003	0.0000	6.3258	6.3258	1.2000e-004	1.5000e-004	6.3732
Total	2.5400e-003	0.0251	0.0280	2.1000e-004	0.0136	2.6000e-004	0.0138	3.7300e-003	2.5000e-004	3.9700e-003	0.0000	20.1303	20.1303	4.8000e-004	2.1800e-003	20.7911

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2000e-004	5.7200e-003	5.9900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.0000e-004	2.0000e-004	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943
Total	8.2000e-004	5.7200e-003	5.9900e-003	2.0000e-005	0.0000	2.1000e-004	2.1000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.5000e-004	4.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0867	0.0867	0.0000	1.0000e-005	0.0906
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0394	0.0394	0.0000	0.0000	0.0397
Total	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1262	0.1262	0.0000	1.0000e-005	0.1303

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-004	1.1300e-003	0.0101	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943
Total	2.6000e-004	1.1300e-003	0.0101	2.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	1.8792	1.8792	6.1000e-004	0.0000	1.8943

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

3.3 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.5000e-004	4.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0867	0.0867	0.0000	1.0000e-005	0.0906
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0394	0.0394	0.0000	0.0000	0.0397
Total	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1262	0.1262	0.0000	1.0000e-005	0.1303

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6495	0.0000	0.6495	0.1239	0.0000	0.1239	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4781	3.9832	3.4990	0.0115		0.1491	0.1491		0.1372	0.1372	0.0000	1,007.1902	1,007.1902	0.3258	0.0000	1,015.3338
Total	0.4781	3.9832	3.4990	0.0115	0.6495	0.1491	0.7986	0.1239	0.1372	0.2611	0.0000	1,007.1902	1,007.1902	0.3258	0.0000	1,015.3338

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0254	1.1316	0.3681	5.2500e-003	0.1580	0.0107	0.1686	0.0434	0.0102	0.0536	0.0000	519.0780	519.0780	0.0219	0.0823	544.1426
Vendor	3.2100e-003	0.1482	0.0376	9.0000e-004	0.0340	1.4000e-003	0.0354	9.8000e-003	1.3400e-003	0.0111	0.0000	87.4286	87.4286	2.2600e-003	0.0129	91.3134
Worker	4.0600e-003	3.4400e-003	0.0441	1.4000e-004	0.0164	8.0000e-005	0.0165	4.3500e-003	7.0000e-005	4.4200e-003	0.0000	12.6516	12.6516	2.3000e-004	3.0000e-004	12.7463
Total	0.0326	1.2832	0.4498	6.2900e-003	0.2084	0.0121	0.2205	0.0576	0.0116	0.0692	0.0000	619.1582	619.1582	0.0244	0.0954	648.2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2923	0.0000	0.2923	0.0557	0.0000	0.0557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1420	0.6752	5.4598	0.0115		0.0187	0.0187		0.0187	0.0187	0.0000	1,007.1890	1,007.1890	0.3258	0.0000	1,015.3326
Total	0.1420	0.6752	5.4598	0.0115	0.2923	0.0187	0.3110	0.0557	0.0187	0.0745	0.0000	1,007.1890	1,007.1890	0.3258	0.0000	1,015.3326

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0254	1.1316	0.3681	5.2500e-003	0.1580	0.0107	0.1686	0.0434	0.0102	0.0536	0.0000	519.0780	519.0780	0.0219	0.0823	544.1426
Vendor	3.2100e-003	0.1482	0.0376	9.0000e-004	0.0340	1.4000e-003	0.0354	9.8000e-003	1.3400e-003	0.0111	0.0000	87.4286	87.4286	2.2600e-003	0.0129	91.3134
Worker	4.0600e-003	3.4400e-003	0.0441	1.4000e-004	0.0164	8.0000e-005	0.0165	4.3500e-003	7.0000e-005	4.4200e-003	0.0000	12.6516	12.6516	2.3000e-004	3.0000e-004	12.7463
Total	0.0326	1.2832	0.4498	6.2900e-003	0.2084	0.0121	0.2205	0.0576	0.0116	0.0692	0.0000	619.1582	619.1582	0.0244	0.0954	648.2023

3.4 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7676	0.0000	0.7676	0.1888	0.0000	0.1888	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9333	7.4041	6.9183	0.0229		0.2757	0.2757		0.2537	0.2537	0.0000	2,014.7619	2,014.7619	0.6516	0.0000	2,031.0522
Total	0.9333	7.4041	6.9183	0.0229	0.7676	0.2757	1.0434	0.1888	0.2537	0.4425	0.0000	2,014.7619	2,014.7619	0.6516	0.0000	2,031.0522

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3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0503	2.2701	0.7376	0.0103	0.3160	0.0210	0.3370	0.0868	0.0201	0.1069	0.0000	1,020.160 9	1,020.160 9	0.0426	0.1617	1,069.406 4
Vendor	6.2000e-003	0.3001	0.0733	1.7700e-003	0.0680	2.7500e-003	0.0707	0.0196	2.6300e-003	0.0222	0.0000	172.4754	172.4754	4.3800e-003	0.0253	180.1358
Worker	7.5700e-003	6.0800e-003	0.0819	2.6000e-004	0.0328	1.5000e-004	0.0329	8.7000e-003	1.4000e-004	8.8400e-003	0.0000	24.7653	24.7653	4.2000e-004	5.5000e-004	24.9398
Total	0.0641	2.5763	0.8928	0.0124	0.4167	0.0239	0.4406	0.1151	0.0229	0.1380	0.0000	1,217.401 5	1,217.401 5	0.0474	0.1876	1,274.481 9

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3454	0.0000	0.3454	0.0850	0.0000	0.0850	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2839	1.3503	10.9195	0.0229		0.0374	0.0374		0.0374	0.0374	0.0000	2,014.759 5	2,014.759 5	0.6516	0.0000	2,031.049 8
Total	0.2839	1.3503	10.9195	0.0229	0.3454	0.0374	0.3829	0.0850	0.0374	0.1224	0.0000	2,014.759 5	2,014.759 5	0.6516	0.0000	2,031.049 8

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3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0503	2.2701	0.7376	0.0103	0.3160	0.0210	0.3370	0.0868	0.0201	0.1069	0.0000	1,020.160 9	1,020.160 9	0.0426	0.1617	1,069.406 4
Vendor	6.2000e-003	0.3001	0.0733	1.7700e-003	0.0680	2.7500e-003	0.0707	0.0196	2.6300e-003	0.0222	0.0000	172.4754	172.4754	4.3800e-003	0.0253	180.1358
Worker	7.5700e-003	6.0800e-003	0.0819	2.6000e-004	0.0328	1.5000e-004	0.0329	8.7000e-003	1.4000e-004	8.8400e-003	0.0000	24.7653	24.7653	4.2000e-004	5.5000e-004	24.9398
Total	0.0641	2.5763	0.8928	0.0124	0.4167	0.0239	0.4406	0.1151	0.0229	0.1380	0.0000	1,217.401 5	1,217.401 5	0.0474	0.1876	1,274.481 9

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5524	0.0000	0.5524	0.0705	0.0000	0.0705	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0782	0.5678	0.5994	2.0500e-003		0.0208	0.0208		0.0192	0.0192	0.0000	179.5827	179.5827	0.0581	0.0000	181.0348
Total	0.0782	0.5678	0.5994	2.0500e-003	0.5524	0.0208	0.5732	0.0705	0.0192	0.0896	0.0000	179.5827	179.5827	0.0581	0.0000	181.0348

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3.4 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4500e-003	0.2006	0.0657	9.0000e-004	0.0282	1.8700e-003	0.0300	7.7400e-003	1.7900e-003	9.5300e-003	0.0000	89.0353	89.0353	3.6900e-003	0.0141	93.3325
Vendor	5.4000e-004	0.0266	6.3800e-003	1.5000e-004	6.0600e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.3000e-004	1.9800e-003	0.0000	15.0800	15.0800	3.8000e-004	2.2100e-003	15.7493
Worker	6.3000e-004	4.8000e-004	6.7600e-003	2.0000e-005	2.9200e-003	1.0000e-005	2.9400e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.1542	2.1542	3.0000e-005	5.0000e-005	2.1686
Total	5.6200e-003	0.2277	0.0788	1.0700e-003	0.0372	2.1300e-003	0.0393	0.0103	2.0300e-003	0.0123	0.0000	106.2695	106.2695	4.1000e-003	0.0164	111.2504

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2486	0.0000	0.2486	0.0317	0.0000	0.0317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.1204	0.9737	2.0500e-003		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	179.5825	179.5825	0.0581	0.0000	181.0345
Total	0.0253	0.1204	0.9737	2.0500e-003	0.2486	3.3400e-003	0.2519	0.0317	3.3400e-003	0.0351	0.0000	179.5825	179.5825	0.0581	0.0000	181.0345

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4500e-003	0.2006	0.0657	9.0000e-004	0.0282	1.8700e-003	0.0300	7.7400e-003	1.7900e-003	9.5300e-003	0.0000	89.0353	89.0353	3.6900e-003	0.0141	93.3325
Vendor	5.4000e-004	0.0266	6.3800e-003	1.5000e-004	6.0600e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.3000e-004	1.9800e-003	0.0000	15.0800	15.0800	3.8000e-004	2.2100e-003	15.7493
Worker	6.3000e-004	4.8000e-004	6.7600e-003	2.0000e-005	2.9200e-003	1.0000e-005	2.9400e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.1542	2.1542	3.0000e-005	5.0000e-005	2.1686
Total	5.6200e-003	0.2277	0.0788	1.0700e-003	0.0372	2.1300e-003	0.0393	0.0103	2.0300e-003	0.0123	0.0000	106.2695	106.2695	4.1000e-003	0.0164	111.2504

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5325	4.2565	4.5223	0.0122		0.1809	0.1809		0.1726	0.1726	0.0000	1,066.1288	1,066.1288	0.2548	0.0000	1,072.4986
Total	0.5325	4.2565	4.5223	0.0122		0.1809	0.1809		0.1726	0.1726	0.0000	1,066.1288	1,066.1288	0.2548	0.0000	1,072.4986

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1170	0.0297	7.1000e-004	0.0268	1.1000e-003	0.0279	7.7300e-003	1.0600e-003	8.7900e-003	0.0000	69.0226	69.0226	1.7800e-003	0.0101	72.0896
Worker	5.0700e-003	4.3000e-003	0.0551	1.7000e-004	0.0205	1.0000e-004	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.8145	15.8145	2.9000e-004	3.7000e-004	15.9329
Total	7.6100e-003	0.1213	0.0848	8.8000e-004	0.0473	1.2000e-003	0.0485	0.0132	1.1500e-003	0.0143	0.0000	84.8371	84.8371	2.0700e-003	0.0105	88.0225

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.1276	1,066.1276	0.2548	0.0000	1,072.4974
Total	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.1276	1,066.1276	0.2548	0.0000	1,072.4974

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1170	0.0297	7.1000e-004	0.0268	1.1000e-003	0.0279	7.7300e-003	1.0600e-003	8.7900e-003	0.0000	69.0226	69.0226	1.7800e-003	0.0101	72.0896
Worker	5.0700e-003	4.3000e-003	0.0551	1.7000e-004	0.0205	1.0000e-004	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.8145	15.8145	2.9000e-004	3.7000e-004	15.9329
Total	7.6100e-003	0.1213	0.0848	8.8000e-004	0.0473	1.2000e-003	0.0485	0.0132	1.1500e-003	0.0143	0.0000	84.8371	84.8371	2.0700e-003	0.0105	88.0225

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5122	3.9696	4.4902	0.0122		0.1618	0.1618		0.1541	0.1541	0.0000	1,066.3578	1,066.3578	0.2537	0.0000	1,072.7011
Total	0.5122	3.9696	4.4902	0.0122		0.1618	0.1618		0.1541	0.1541	0.0000	1,066.3578	1,066.3578	0.2537	0.0000	1,072.7011

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3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1185	0.0289	7.0000e-004	0.0268	1.0900e-003	0.0279	7.7300e-003	1.0400e-003	8.7700e-003	0.0000	68.0824	68.0824	1.7300e-003	0.0100	71.1062
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	7.1800e-003	0.1223	0.0801	8.7000e-004	0.0473	1.1800e-003	0.0485	0.0132	1.1300e-003	0.0143	0.0000	83.5607	83.5607	1.9900e-003	0.0103	86.6936

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.3566	1,066.3566	0.2537	0.0000	1,072.6998
Total	0.1427	0.6784	6.2706	0.0122		0.0188	0.0188		0.0188	0.0188	0.0000	1,066.3566	1,066.3566	0.2537	0.0000	1,072.6998

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1185	0.0289	7.0000e-004	0.0268	1.0900e-003	0.0279	7.7300e-003	1.0400e-003	8.7700e-003	0.0000	68.0824	68.0824	1.7300e-003	0.0100	71.1062
Worker	4.7300e-003	3.8000e-003	0.0512	1.7000e-004	0.0205	9.0000e-005	0.0206	5.4400e-003	9.0000e-005	5.5300e-003	0.0000	15.4783	15.4783	2.6000e-004	3.4000e-004	15.5873
Total	7.1800e-003	0.1223	0.0801	8.7000e-004	0.0473	1.1800e-003	0.0485	0.0132	1.1300e-003	0.0143	0.0000	83.5607	83.5607	1.9900e-003	0.0103	86.6936

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1101	0.8872	1.0707	2.6200e-003		0.0390	0.0390		0.0362	0.0362	0.0000	230.0671	230.0671	0.0696	0.0000	231.8058
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1101	0.8872	1.0707	2.6200e-003		0.0390	0.0390		0.0362	0.0362	0.0000	230.0671	230.0671	0.0696	0.0000	231.8058

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0546	0.0139	3.3000e-004	0.0125	5.1000e-004	0.0130	3.6100e-003	4.9000e-004	4.1000e-003	0.0000	32.2105	32.2105	8.3000e-004	4.7300e-003	33.6418
Worker	1.0100e-003	8.6000e-004	0.0110	3.0000e-005	4.1000e-003	2.0000e-005	4.1200e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.1629	3.1629	6.0000e-005	7.0000e-005	3.1866
Total	2.1900e-003	0.0555	0.0249	3.6000e-004	0.0166	5.3000e-004	0.0172	4.7000e-003	5.1000e-004	5.2100e-003	0.0000	35.3734	35.3734	8.9000e-004	4.8000e-003	36.8284

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.1372	1.4770	2.6200e-003		4.2200e-003	4.2200e-003		4.2200e-003	4.2200e-003	0.0000	230.0669	230.0669	0.0696	0.0000	231.8056
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0317	0.1372	1.4770	2.6200e-003		4.2200e-003	4.2200e-003		4.2200e-003	4.2200e-003	0.0000	230.0669	230.0669	0.0696	0.0000	231.8056

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1800e-003	0.0546	0.0139	3.3000e-004	0.0125	5.1000e-004	0.0130	3.6100e-003	4.9000e-004	4.1000e-003	0.0000	32.2105	32.2105	8.3000e-004	4.7300e-003	33.6418
Worker	1.0100e-003	8.6000e-004	0.0110	3.0000e-005	4.1000e-003	2.0000e-005	4.1200e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.1629	3.1629	6.0000e-005	7.0000e-005	3.1866
Total	2.1900e-003	0.0555	0.0249	3.6000e-004	0.0166	5.3000e-004	0.0172	4.7000e-003	5.1000e-004	5.2100e-003	0.0000	35.3734	35.3734	8.9000e-004	4.8000e-003	36.8284

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0191	0.1477	0.1904	4.7000e-004		6.3400e-003	6.3400e-003		5.8800e-003	5.8800e-003	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.8600e-003	2.4100e-003	6.0000e-005	2.2300e-003	9.0000e-005	2.3200e-003	6.4000e-004	9.0000e-005	7.3000e-004	0.0000	5.6663	5.6663	1.4000e-004	8.3000e-004	5.9180
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.7000e-004	0.0100	4.2400e-003	7.0000e-005	2.9600e-003	9.0000e-005	3.0500e-003	8.3000e-004	9.0000e-005	9.3000e-004	0.0000	6.2184	6.2184	1.5000e-004	8.4000e-004	6.4740

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.6500e-003	0.0245	0.2634	4.7000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.0409	41.0409	0.0124	0.0000	41.3508

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.8600e-003	2.4100e-003	6.0000e-005	2.2300e-003	9.0000e-005	2.3200e-003	6.4000e-004	9.0000e-005	7.3000e-004	0.0000	5.6663	5.6663	1.4000e-004	8.3000e-004	5.9180
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5521	0.5521	1.0000e-005	1.0000e-005	0.5560
Total	3.7000e-004	0.0100	4.2400e-003	7.0000e-005	2.9600e-003	9.0000e-005	3.0500e-003	8.3000e-004	9.0000e-005	9.3000e-004	0.0000	6.2184	6.2184	1.5000e-004	8.4000e-004	6.4740

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Cajon Pass High-Speed Rail Project - Construction of Segment 5 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cajon Pass High-Speed Rail Project - Construction of Segment 5****San Bernardino-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	200.84	0.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specific landuse

Construction Phase - Project specific schedule

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Trips and VMT - Project specific trips and VMT

Demolition - Project specific demolition

Grading - Project specific material usage

Vehicle Trips - Construction only

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

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Area Mitigation - Construction only

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	38.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	4,650.00	549.00
tblConstructionPhase	NumDays	300.00	106.00
tblConstructionPhase	NumDays	465.00	471.00
tblConstructionPhase	NumDays	330.00	210.00
tblConstructionPhase	NumDays	180.00	106.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	1.98E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0

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

tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	46,519.00
tblLandUse	LotAcreage	0.00	200.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00

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

tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	4,430.00	4,430.16
tblTripsAndVMT	HaulingTripNumber	5,815.00	5,814.90
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	0.00	13.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00
tblTripsAndVMT	WorkerTripNumber	43.00	3.00

2.0 Emissions Summary

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8823	7.5413	7.2103	0.0212	0.5861	0.3105	0.8966	0.1021	0.2937	0.3958	0.0000	1,877.309 4	1,877.309 4	0.4457	0.0291	1,897.122 0
2023	1.3662	11.5640	11.2675	0.0348	0.7415	0.4570	1.1985	0.2331	0.4304	0.6635	0.0000	3,073.521 2	3,073.521 2	0.7409	0.0476	3,106.227 9
2024	0.8784	7.3723	7.0573	0.0236	0.8421	0.2721	1.1142	0.3041	0.2533	0.5574	0.0000	2,093.694 2	2,093.694 2	0.5456	0.0394	2,119.074 2
Maximum	1.3662	11.5640	11.2675	0.0348	0.8421	0.4570	1.1985	0.3041	0.4304	0.6635	0.0000	3,073.521 2	3,073.521 2	0.7409	0.0476	3,106.227 9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2495	1.4721	10.0138	0.0212	0.3225	0.0351	0.3576	0.0622	0.0349	0.0971	0.0000	1,877.307 5	1,877.307 5	0.4457	0.0291	1,897.120 0
2023	0.3990	2.3621	15.9825	0.0348	0.4340	0.0543	0.4883	0.1329	0.0540	0.1869	0.0000	3,073.518 0	3,073.518 0	0.7409	0.0476	3,106.224 7
2024	0.2696	1.7368	10.4183	0.0236	0.4476	0.0378	0.4854	0.1561	0.0375	0.1937	0.0000	2,093.692 0	2,093.692 0	0.5456	0.0394	2,119.072 0
Maximum	0.3990	2.3621	15.9825	0.0348	0.4476	0.0543	0.4883	0.1561	0.0540	0.1937	0.0000	3,073.518 0	3,073.518 0	0.7409	0.0476	3,106.224 7

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.64	78.96	-42.61	0.00	44.50	87.77	58.52	45.07	87.06	70.46	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	5.4999	1.1208
2	11-1-2022	1-31-2023	3.7979	0.7706
3	2-1-2023	4-30-2023	2.4987	0.5076
4	5-1-2023	7-31-2023	3.2319	0.6865
5	8-1-2023	10-31-2023	3.7729	0.8187
6	11-1-2023	1-31-2024	3.7033	0.8248
7	2-1-2024	4-30-2024	3.4749	0.8046
8	5-1-2024	7-31-2024	1.5314	0.3893
9	8-1-2024	9-30-2024	1.0007	0.2550
		Highest	5.4999	1.1208

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	12/1/2022	6	106	
2	Site Preparation	Site Preparation	8/1/2022	12/1/2022	6	106	
3	Building Construction	Building Construction	8/1/2022	5/1/2024	6	549	

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

4	Paving	Paving	8/1/2022	4/1/2023	6	210
5	Grading	Grading	6/1/2023	12/1/2024	6	471

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 529.88****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	5	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29

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

Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	5	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	2.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	3.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	3.00	132	0.36
Paving	Rollers	3	3.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	3.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	6	4.00	402	0.38
Grading	Off-Highway Trucks	4	4.00	402	0.38
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	17	5.00	0.00	4,430.16	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	13.00	17.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	5.00	10.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	17	3.00	16.00	5,814.90	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4793	0.0000	0.4793	0.0726	0.0000	0.0726	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2477	1.9805	2.0343	5.4400e-003		0.0858	0.0858		0.0818	0.0818	0.0000	475.2755	475.2755	0.1208	0.0000	478.2956
Total	0.2477	1.9805	2.0343	5.4400e-003	0.4793	0.0858	0.5652	0.0726	0.0818	0.1544	0.0000	475.2755	475.2755	0.1208	0.0000	478.2956

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.5600e-003	0.1840	0.0599	6.9000e-004	0.0191	1.6000e-003	0.0207	5.2500e-003	1.5300e-003	6.7800e-003	0.0000	67.9619	67.9619	2.8400e-003	0.0108	71.2414
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	7.4100e-003	0.1857	0.0803	7.5000e-004	0.0260	1.6400e-003	0.0277	7.0900e-003	1.5600e-003	8.6500e-003	0.0000	73.4450	73.4450	2.9500e-003	0.0109	76.7683

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2157	0.0000	0.2157	0.0327	0.0000	0.0327	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0635	0.2750	2.8193	5.4400e-003		8.4600e-003	8.4600e-003		8.4600e-003	8.4600e-003	0.0000	475.2749	475.2749	0.1208	0.0000	478.2950
Total	0.0635	0.2750	2.8193	5.4400e-003	0.2157	8.4600e-003	0.2242	0.0327	8.4600e-003	0.0411	0.0000	475.2749	475.2749	0.1208	0.0000	478.2950

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.5600e-003	0.1840	0.0599	6.9000e-004	0.0191	1.6000e-003	0.0207	5.2500e-003	1.5300e-003	6.7800e-003	0.0000	67.9619	67.9619	2.8400e-003	0.0108	71.2414
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	7.4100e-003	0.1857	0.0803	7.5000e-004	0.0260	1.6400e-003	0.0277	7.0900e-003	1.5600e-003	8.6500e-003	0.0000	73.4450	73.4450	2.9500e-003	0.0109	76.7683

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0928	0.7270	0.6527	2.2700e-003		0.0280	0.0280		0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764
Total	0.0928	0.7270	0.6527	2.2700e-003	0.0000	0.0280	0.0280	0.0000	0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.1201	1.0666	2.2700e-003		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762
Total	0.0277	0.1201	1.0666	2.2700e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4086	3.4572	3.2386	8.8500e-003		0.1489	0.1489		0.1416	0.1416	0.0000	772.1645	772.1645	0.1899	0.0000	776.9127
Total	0.4086	3.4572	3.2386	8.8500e-003		0.1489	0.1489		0.1416	0.1416	0.0000	772.1645	772.1645	0.1899	0.0000	776.9127

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7200e-003	0.1480	0.0352	7.0000e-004	0.0256	2.0800e-003	0.0276	7.3700e-003	1.9900e-003	9.3600e-003	0.0000	68.5412	68.5412	1.8400e-003	0.0101	71.5958
Worker	5.9900e-003	5.3800e-003	0.0660	1.9000e-004	0.0224	1.1000e-004	0.0225	5.9400e-003	1.0000e-004	6.0500e-003	0.0000	17.7529	17.7529	3.6000e-004	4.5000e-004	17.8947
Total	0.0107	0.1534	0.1012	8.9000e-004	0.0480	2.1900e-003	0.0501	0.0133	2.0900e-003	0.0154	0.0000	86.2941	86.2941	2.2000e-003	0.0106	89.4905

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1040	0.5011	4.4945	8.8500e-003		0.0137	0.0137		0.0137	0.0137	0.0000	772.1636	772.1636	0.1899	0.0000	776.9118
Total	0.1040	0.5011	4.4945	8.8500e-003		0.0137	0.0137		0.0137	0.0137	0.0000	772.1636	772.1636	0.1899	0.0000	776.9118

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7200e-003	0.1480	0.0352	7.0000e-004	0.0256	2.0800e-003	0.0276	7.3700e-003	1.9900e-003	9.3600e-003	0.0000	68.5412	68.5412	1.8400e-003	0.0101	71.5958
Worker	5.9900e-003	5.3800e-003	0.0660	1.9000e-004	0.0224	1.1000e-004	0.0225	5.9400e-003	1.0000e-004	6.0500e-003	0.0000	17.7529	17.7529	3.6000e-004	4.5000e-004	17.8947
Total	0.0107	0.1534	0.1012	8.9000e-004	0.0480	2.1900e-003	0.0501	0.0133	2.0900e-003	0.0154	0.0000	86.2941	86.2941	2.2000e-003	0.0106	89.4905

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.9099	7.4091	7.5620	0.0209		0.3105	0.3105		0.2952	0.2952	0.0000	1,825.8799	1,825.8799	0.4472	0.0000	1,837.0603
Total	0.9099	7.4091	7.5620	0.0209		0.3105	0.3105		0.2952	0.2952	0.0000	1,825.8799	1,825.8799	0.4472	0.0000	1,837.0603

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7100e-003	0.2635	0.0668	1.6000e-003	0.0604	2.4800e-003	0.0629	0.0174	2.3800e-003	0.0198	0.0000	155.4547	155.4547	4.0200e-003	0.0228	162.3622
Worker	0.0131	0.0111	0.1424	4.4000e-004	0.0529	2.5000e-004	0.0532	0.0141	2.3000e-004	0.0143	0.0000	40.8559	40.8559	7.5000e-004	9.6000e-004	41.1617
Total	0.0188	0.2746	0.2092	2.0400e-003	0.1133	2.7300e-003	0.1161	0.0315	2.6100e-003	0.0341	0.0000	196.3105	196.3105	4.7700e-003	0.0238	203.5239

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2458	1.1844	10.6235	0.0209		0.0323	0.0323		0.0323	0.0323	0.0000	1,825.8777	1,825.8777	0.4472	0.0000	1,837.0582
Total	0.2458	1.1844	10.6235	0.0209		0.0323	0.0323		0.0323	0.0323	0.0000	1,825.8777	1,825.8777	0.4472	0.0000	1,837.0582

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7100e-003	0.2635	0.0668	1.6000e-003	0.0604	2.4800e-003	0.0629	0.0174	2.3800e-003	0.0198	0.0000	155.4547	155.4547	4.0200e-003	0.0228	162.3622
Worker	0.0131	0.0111	0.1424	4.4000e-004	0.0529	2.5000e-004	0.0532	0.0141	2.3000e-004	0.0143	0.0000	40.8559	40.8559	7.5000e-004	9.6000e-004	41.1617
Total	0.0188	0.2746	0.2092	2.0400e-003	0.1133	2.7300e-003	0.1161	0.0315	2.6100e-003	0.0341	0.0000	196.3105	196.3105	4.7700e-003	0.0238	203.5239

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2946	2.3237	2.5245	7.0400e-003		0.0938	0.0938		0.0891	0.0891	0.0000	614.6097	614.6097	0.1500	0.0000	618.3584
Total	0.2946	2.3237	2.5245	7.0400e-003		0.0938	0.0938		0.0891	0.0891	0.0000	614.6097	614.6097	0.1500	0.0000	618.3584

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8500e-003	0.0898	0.0219	5.3000e-004	0.0203	8.2000e-004	0.0212	5.8600e-003	7.9000e-004	6.6500e-003	0.0000	51.6038	51.6038	1.3100e-003	7.5800e-003	53.8958
Worker	4.1100e-003	3.3000e-003	0.0445	1.4000e-004	0.0178	8.0000e-005	0.0179	4.7300e-003	8.0000e-005	4.8000e-003	0.0000	13.4573	13.4573	2.3000e-004	3.0000e-004	13.5521
Total	5.9600e-003	0.0931	0.0664	6.7000e-004	0.0381	9.0000e-004	0.0391	0.0106	8.7000e-004	0.0115	0.0000	65.0611	65.0611	1.5400e-003	7.8800e-003	67.4479

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0827	0.3986	3.5752	7.0400e-003		0.0109	0.0109		0.0109	0.0109	0.0000	614.6090	614.6090	0.1500	0.0000	618.3577
Total	0.0827	0.3986	3.5752	7.0400e-003		0.0109	0.0109		0.0109	0.0109	0.0000	614.6090	614.6090	0.1500	0.0000	618.3577

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8500e-003	0.0898	0.0219	5.3000e-004	0.0203	8.2000e-004	0.0212	5.8600e-003	7.9000e-004	6.6500e-003	0.0000	51.6038	51.6038	1.3100e-003	7.5800e-003	53.8958
Worker	4.1100e-003	3.3000e-003	0.0445	1.4000e-004	0.0178	8.0000e-005	0.0179	4.7300e-003	8.0000e-005	4.8000e-003	0.0000	13.4573	13.4573	2.3000e-004	3.0000e-004	13.5521
Total	5.9600e-003	0.0931	0.0664	6.7000e-004	0.0381	9.0000e-004	0.0391	0.0106	8.7000e-004	0.0115	0.0000	65.0611	65.0611	1.5400e-003	7.8800e-003	67.4479

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1079	0.9260	1.0358	2.3900e-003		0.0424	0.0424		0.0393	0.0393	0.0000	209.9167	209.9167	0.0639	0.0000	211.5134
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1079	0.9260	1.0358	2.3900e-003		0.0424	0.0424		0.0393	0.0393	0.0000	209.9167	209.9167	0.0639	0.0000	211.5134

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7800e-003	0.0871	0.0207	4.1000e-004	0.0150	1.2300e-003	0.0163	4.3400e-003	1.1700e-003	5.5100e-003	0.0000	40.3184	40.3184	1.0800e-003	5.9400e-003	42.1152
Worker	2.3000e-003	2.0700e-003	0.0254	7.0000e-005	8.6100e-003	4.0000e-005	8.6500e-003	2.2900e-003	4.0000e-005	2.3300e-003	0.0000	6.8280	6.8280	1.4000e-004	1.7000e-004	6.8826
Total	5.0800e-003	0.0891	0.0461	4.8000e-004	0.0237	1.2700e-003	0.0249	6.6300e-003	1.2100e-003	7.8400e-003	0.0000	47.1464	47.1464	1.2200e-003	6.1100e-003	48.9977

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0289	0.1254	1.3845	2.3900e-003		3.8600e-003	3.8600e-003		3.8600e-003	3.8600e-003	0.0000	209.9165	209.9165	0.0639	0.0000	211.5132
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0289	0.1254	1.3845	2.3900e-003		3.8600e-003	3.8600e-003		3.8600e-003	3.8600e-003	0.0000	209.9165	209.9165	0.0639	0.0000	211.5132

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

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7800e-003	0.0871	0.0207	4.1000e-004	0.0150	1.2300e-003	0.0163	4.3400e-003	1.1700e-003	5.5100e-003	0.0000	40.3184	40.3184	1.0800e-003	5.9400e-003	42.1152
Worker	2.3000e-003	2.0700e-003	0.0254	7.0000e-005	8.6100e-003	4.0000e-005	8.6500e-003	2.2900e-003	4.0000e-005	2.3300e-003	0.0000	6.8280	6.8280	1.4000e-004	1.7000e-004	6.8826
Total	5.0800e-003	0.0891	0.0461	4.8000e-004	0.0237	1.2700e-003	0.0249	6.6300e-003	1.2100e-003	7.8400e-003	0.0000	47.1464	47.1464	1.2200e-003	6.1100e-003	48.9977

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0602	0.4963	0.6073	1.4200e-003		0.0222	0.0222		0.0206	0.0206	0.0000	124.0975	124.0975	0.0377	0.0000	125.0405
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0602	0.4963	0.6073	1.4200e-003		0.0222	0.0222		0.0206	0.0206	0.0000	124.0975	124.0975	0.0377	0.0000	125.0405

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0387	9.8300e-003	2.3000e-004	8.8800e-003	3.7000e-004	9.2500e-003	2.5600e-003	3.5000e-004	2.9100e-003	0.0000	22.8610	22.8610	5.9000e-004	3.3600e-003	23.8768
Worker	1.2600e-003	1.0700e-003	0.0137	4.0000e-005	5.0900e-003	2.0000e-005	5.1100e-003	1.3500e-003	2.0000e-005	1.3700e-003	0.0000	3.9285	3.9285	7.0000e-005	9.0000e-005	3.9579
Total	2.1000e-003	0.0398	0.0235	2.7000e-004	0.0140	3.9000e-004	0.0144	3.9100e-003	3.7000e-004	4.2800e-003	0.0000	26.7894	26.7894	6.6000e-004	3.4500e-003	27.8347

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0171	0.0741	0.8181	1.4200e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	124.0973	124.0973	0.0377	0.0000	125.0403
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0171	0.0741	0.8181	1.4200e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	124.0973	124.0973	0.0377	0.0000	125.0403

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0387	9.8300e-003	2.3000e-004	8.8800e-003	3.7000e-004	9.2500e-003	2.5600e-003	3.5000e-004	2.9100e-003	0.0000	22.8610	22.8610	5.9000e-004	3.3600e-003	23.8768
Worker	1.2600e-003	1.0700e-003	0.0137	4.0000e-005	5.0900e-003	2.0000e-005	5.1100e-003	1.3500e-003	2.0000e-005	1.3700e-003	0.0000	3.9285	3.9285	7.0000e-005	9.0000e-005	3.9579
Total	2.1000e-003	0.0398	0.0235	2.7000e-004	0.0140	3.9000e-004	0.0144	3.9100e-003	3.7000e-004	4.2800e-003	0.0000	26.7894	26.7894	6.6000e-004	3.4500e-003	27.8347

3.6 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5591	0.0000	0.5591	0.1822	0.0000	0.1822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3680	3.0928	2.7753	8.6700e-003		0.1188	0.1188		0.1093	0.1093	0.0000	761.1365	761.1365	0.2462	0.0000	767.2906
Total	0.3680	3.0928	2.7753	8.6700e-003	0.5591	0.1188	0.6779	0.1822	0.1093	0.2915	0.0000	761.1365	761.1365	0.2462	0.0000	767.2906

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3400e-003	0.1046	0.0340	4.9000e-004	0.0146	9.8000e-004	0.0156	4.0100e-003	9.4000e-004	4.9500e-003	0.0000	47.9608	47.9608	2.0300e-003	7.6000e-003	50.2766
Vendor	3.1500e-003	0.1454	0.0369	8.8000e-004	0.0334	1.3700e-003	0.0347	9.6200e-003	1.3100e-003	0.0109	0.0000	85.8166	85.8166	2.2200e-003	0.0126	89.6298
Worker	1.7700e-003	1.5000e-003	0.0193	6.0000e-005	7.1600e-003	3.0000e-005	7.2000e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	5.5301	5.5301	1.0000e-004	1.3000e-004	5.5714
Total	7.2600e-003	0.2515	0.0902	1.4300e-003	0.0551	2.3800e-003	0.0575	0.0155	2.2800e-003	0.0178	0.0000	139.3074	139.3074	4.3500e-003	0.0203	145.4779

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2516	0.0000	0.2516	0.0820	0.0000	0.0820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1079	0.5377	4.2181	8.6700e-003		0.0141	0.0141		0.0141	0.0141	0.0000	761.1355	761.1355	0.2462	0.0000	767.2897
Total	0.1079	0.5377	4.2181	8.6700e-003	0.2516	0.0141	0.2657	0.0820	0.0141	0.0961	0.0000	761.1355	761.1355	0.2462	0.0000	767.2897

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

3.6 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3400e-003	0.1046	0.0340	4.9000e-004	0.0146	9.8000e-004	0.0156	4.0100e-003	9.4000e-004	4.9500e-003	0.0000	47.9608	47.9608	2.0300e-003	7.6000e-003	50.2766
Vendor	3.1500e-003	0.1454	0.0369	8.8000e-004	0.0334	1.3700e-003	0.0347	9.6200e-003	1.3100e-003	0.0109	0.0000	85.8166	85.8166	2.2200e-003	0.0126	89.6298
Worker	1.7700e-003	1.5000e-003	0.0193	6.0000e-005	7.1600e-003	3.0000e-005	7.2000e-003	1.9000e-003	3.0000e-005	1.9300e-003	0.0000	5.5301	5.5301	1.0000e-004	1.3000e-004	5.5714
Total	7.2600e-003	0.2515	0.0902	1.4300e-003	0.0551	2.3800e-003	0.0575	0.0155	2.2800e-003	0.0178	0.0000	139.3074	139.3074	4.3500e-003	0.0203	145.4779

3.6 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7172	0.0000	0.7172	0.2691	0.0000	0.2691	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5668	4.5565	4.3280	0.0136		0.1738	0.1738		0.1599	0.1599	0.0000	1,198.1185	1,198.1185	0.3875	0.0000	1,207.8059
Total	0.5668	4.5565	4.3280	0.0136	0.7172	0.1738	0.8910	0.2691	0.1599	0.4289	0.0000	1,198.1185	1,198.1185	0.3875	0.0000	1,207.8059

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

3.6 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6600e-003	0.1651	0.0536	7.5000e-004	0.0230	1.5300e-003	0.0245	6.3100e-003	1.4600e-003	7.7700e-003	0.0000	74.1709	74.1709	3.1000e-003	0.0118	77.7513
Vendor	4.7900e-003	0.2318	0.0566	1.3700e-003	0.0525	2.1300e-003	0.0546	0.0151	2.0300e-003	0.0172	0.0000	133.2160	133.2160	3.3800e-003	0.0196	139.1327
Worker	2.6000e-003	2.0900e-003	0.0282	9.0000e-005	0.0113	5.0000e-005	0.0113	2.9900e-003	5.0000e-005	3.0400e-003	0.0000	8.5180	8.5180	1.4000e-004	1.9000e-004	8.5780
Total	0.0111	0.3990	0.1384	2.2100e-003	0.0867	3.7100e-003	0.0904	0.0244	3.5400e-003	0.0280	0.0000	215.9049	215.9049	6.6200e-003	0.0315	225.4620

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3227	0.0000	0.3227	0.1211	0.0000	0.1211	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1699	0.8462	6.6383	0.0136		0.0223	0.0223		0.0223	0.0223	0.0000	1,198.117 1	1,198.117 1	0.3875	0.0000	1,207.804 4
Total	0.1699	0.8462	6.6383	0.0136	0.3227	0.0223	0.3450	0.1211	0.0223	0.1433	0.0000	1,198.117 1	1,198.117 1	0.3875	0.0000	1,207.804 4

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6600e-003	0.1651	0.0536	7.5000e-004	0.0230	1.5300e-003	0.0245	6.3100e-003	1.4600e-003	7.7700e-003	0.0000	74.1709	74.1709	3.1000e-003	0.0118	77.7513
Vendor	4.7900e-003	0.2318	0.0566	1.3700e-003	0.0525	2.1300e-003	0.0546	0.0151	2.0300e-003	0.0172	0.0000	133.2160	133.2160	3.3800e-003	0.0196	139.1327
Worker	2.6000e-003	2.0900e-003	0.0282	9.0000e-005	0.0113	5.0000e-005	0.0113	2.9900e-003	5.0000e-005	3.0400e-003	0.0000	8.5180	8.5180	1.4000e-004	1.9000e-004	8.5780
Total	0.0111	0.3990	0.1384	2.2100e-003	0.0867	3.7100e-003	0.0904	0.0244	3.5400e-003	0.0280	0.0000	215.9049	215.9049	6.6200e-003	0.0315	225.4620

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 5 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 5 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Cajon Pass High-Speed Rail Project - Construction of Segment 5 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Cajon Pass High-Speed Rail Project - Construction of Segment 6 - San Bernardino-South Coast County, Annual

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

Cajon Pass High-Speed Rail Project - Construction of Segment 6

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	685.59	0.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project specific landuse
- Construction Phase - Project specific schedule
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Trips and VMT - Project specific trips and VMT
- Demolition -
- Grading - Project specific material use and landuse

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

Vehicle Trips - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Area Mitigation - Construction only

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	44.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	3,100.00	471.00
tblConstructionPhase	NumDays	200.00	106.00
tblConstructionPhase	NumDays	310.00	523.00
tblConstructionPhase	NumDays	220.00	210.00
tblConstructionPhase	NumDays	120.00	106.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	1.98E-05	0

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

tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	56,708.00
tblLandscapeEquipment	NumberSummerDays	250	0
tblLandUse	LotAcreage	0.00	685.59
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00

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

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	18,837.00	18,838.07
tblTripsAndVMT	HaulingTripNumber	7,089.00	7,088.50
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripNumber	60.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	48.00	3.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

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

tbITripsAndVMT	:	WorkerTripNumber	:	43.00	:	2.00
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2.0 Emissions Summary

Cajon Pass High-Speed Rail Project - Construction of Segment 6 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.7885	16.0579	14.0402	0.0454	2.9245	0.6191	3.5435	0.5875	0.5808	1.1683	0.0000	4,043.1428	4,043.1428	0.9823	0.0970	4,096.6133
2023	1.4757	12.5060	11.7504	0.0380	0.9600	0.4813	1.4412	0.3414	0.4508	0.7923	0.0000	3,367.0118	3,367.0118	0.8578	0.0534	3,404.3793
2024	2.2600e-003	0.0189	0.0172	6.0000e-005	0.3170	6.8000e-004	0.3177	0.0351	6.2000e-004	0.0357	0.0000	5.5158	5.5158	1.5600e-003	1.1000e-004	5.5885
Maximum	1.7885	16.0579	14.0402	0.0454	2.9245	0.6191	3.5435	0.5875	0.5808	1.1683	0.0000	4,043.1428	4,043.1428	0.9823	0.0970	4,096.6133

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5250	3.7161	19.9974	0.0454	1.4562	0.0782	1.5343	0.3034	0.0774	0.3808	0.0000	4,043.1388	4,043.1388	0.9823	0.0970	4,096.6092
2023	0.4369	2.6499	17.1524	0.0380	0.5283	0.0603	0.5886	0.1806	0.0600	0.2406	0.0000	3,367.0082	3,367.0082	0.8578	0.0534	3,404.3757
2024	7.1000e-004	4.7300e-003	0.0265	6.0000e-005	0.1428	1.0000e-004	0.1429	0.0158	1.0000e-004	0.0159	0.0000	5.5158	5.5158	1.5600e-003	1.1000e-004	5.5885
Maximum	0.5250	3.7161	19.9974	0.0454	1.4562	0.0782	1.5343	0.3034	0.0774	0.3808	0.0000	4,043.1388	4,043.1388	0.9823	0.0970	4,096.6092

Cajon Pass High-Speed Rail Project - Construction of Segment 6 - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.53	77.71	-44.05	0.00	49.37	87.41	57.27	48.15	86.67	68.07	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2022	7-31-2022	8.3840	2.0867
2	8-1-2022	10-31-2022	6.1330	1.4007
3	11-1-2022	1-31-2023	4.5871	0.9773
4	2-1-2023	4-30-2023	3.7488	0.8177
5	5-1-2023	7-31-2023	3.8696	0.8397
6	8-1-2023	10-31-2023	3.8725	0.8425
7	11-1-2023	1-31-2024	1.2129	0.2928
		Highest	8.3840	2.0867

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

Unmitigated Operational

[illegible]

Cajon Pass High-Speed Rail Project - Construction of Segment 6 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2022	9/1/2022	6	106	
2	Site Preparation	Site Preparation	5/1/2022	9/1/2022	6	106	
3	Grading	Grading	5/1/2022	1/1/2024	6	523	

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

4	Building Construction	Building Construction	5/1/2022	11/1/2023	6	471
5	Paving	Paving	5/1/2022	1/1/2023	6	210

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 588.38****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	2	6.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	8	4.00	402	0.38
Demolition	Off-Highway Trucks	3	8.00	402	0.38
Demolition	Rubber Tired Loaders	2	6.00	203	0.36
Demolition	Surfacing Equipment	1	3.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	8	4.00	402	0.38
Grading	Off-Highway Trucks	4	4.00	402	0.38

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

Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	5	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	2.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	3	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	2.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	24	5.00	0.00	18,838.07	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	19	3.00	16.00	7,088.50	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	10.00	15.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	10.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0383	0.0000	2.0383	0.3086	0.0000	0.3086	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3364	2.6983	2.6762	7.6200e-003		0.1131	0.1131		0.1068	0.1068	0.0000	666.7701	666.7701	0.1827	0.0000	671.3385
Total	0.3364	2.6983	2.6762	7.6200e-003	2.0383	0.1131	2.1513	0.3086	0.1068	0.4154	0.0000	666.7701	666.7701	0.1827	0.0000	671.3385

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	0.7824	0.2548	2.9300e-003	0.0812	6.8200e-003	0.0880	0.0223	6.5200e-003	0.0288	0.0000	288.9491	288.9491	0.0121	0.0458	302.8924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	0.0255	0.7841	0.2752	2.9900e-003	0.0881	6.8600e-003	0.0950	0.0242	6.5500e-003	0.0307	0.0000	294.4322	294.4322	0.0122	0.0459	308.4193

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9172	0.0000	0.9172	0.1389	0.0000	0.1389	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0902	0.3907	3.8660	7.6200e-003		0.0120	0.0120		0.0120	0.0120	0.0000	666.7693	666.7693	0.1827	0.0000	671.3377
Total	0.0902	0.3907	3.8660	7.6200e-003	0.9172	0.0120	0.9292	0.1389	0.0120	0.1509	0.0000	666.7693	666.7693	0.1827	0.0000	671.3377

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0236	0.7824	0.2548	2.9300e-003	0.0812	6.8200e-003	0.0880	0.0223	6.5200e-003	0.0288	0.0000	288.9491	288.9491	0.0121	0.0458	302.8924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.6600e-003	0.0204	6.0000e-005	6.9100e-003	4.0000e-005	6.9500e-003	1.8400e-003	3.0000e-005	1.8700e-003	0.0000	5.4831	5.4831	1.1000e-004	1.4000e-004	5.5269
Total	0.0255	0.7841	0.2752	2.9900e-003	0.0881	6.8600e-003	0.0950	0.0242	6.5500e-003	0.0307	0.0000	294.4322	294.4322	0.0122	0.0459	308.4193

3.3 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0928	0.7270	0.6527	2.2700e-003		0.0280	0.0280		0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764
Total	0.0928	0.7270	0.6527	2.2700e-003	0.0000	0.0280	0.0280	0.0000	0.0257	0.0257	0.0000	198.9677	198.9677	0.0644	0.0000	200.5764

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

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.1201	1.0666	2.2700e-003		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762
Total	0.0277	0.1201	1.0666	2.2700e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	198.9674	198.9674	0.0644	0.0000	200.5762

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	0.0210	4.9900e-003	1.0000e-004	3.6200e-003	3.0000e-004	3.9200e-003	1.0400e-003	2.8000e-004	1.3300e-003	0.0000	9.7131	9.7131	2.6000e-004	1.4300e-003	10.1459
Worker	1.4800e-003	1.3300e-003	0.0163	5.0000e-005	5.5300e-003	3.0000e-005	5.5600e-003	1.4700e-003	3.0000e-005	1.4900e-003	0.0000	4.3865	4.3865	9.0000e-005	1.1000e-004	4.4215
Total	2.1500e-003	0.0223	0.0213	1.5000e-004	9.1500e-003	3.3000e-004	9.4800e-003	2.5100e-003	3.1000e-004	2.8200e-003	0.0000	14.0996	14.0996	3.5000e-004	1.5400e-003	14.5675

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6314	0.0000	0.6314	0.2080	0.0000	0.2080	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5069	4.4245	3.6156	0.0113		0.1721	0.1721		0.1584	0.1584	0.0000	994.8031	994.8031	0.3217	0.0000	1,002.8466
Total	0.5069	4.4245	3.6156	0.0113	0.6314	0.1721	0.8035	0.2080	0.1584	0.3663	0.0000	994.8031	994.8031	0.3217	0.0000	1,002.8466

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1616	0.0448	6.4000e-004	0.0184	1.5300e-003	0.0199	5.0500e-003	1.4700e-003	6.5200e-003	0.0000	63.1881	63.1881	2.6800e-003	0.0100	66.2388
Vendor	7.0600e-003	0.2216	0.0527	1.0500e-003	0.0383	3.1200e-003	0.0414	0.0110	2.9800e-003	0.0140	0.0000	102.6286	102.6286	2.7600e-003	0.0151	107.2022
Worker	2.2000e-003	1.9800e-003	0.0242	7.0000e-005	8.2200e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003	0.0000	6.5177	6.5177	1.3000e-004	1.6000e-004	6.5697
Total	0.0137	0.3852	0.1218	1.7600e-003	0.0649	4.6900e-003	0.0696	0.0183	4.4900e-003	0.0228	0.0000	172.3343	172.3343	5.5700e-003	0.0253	180.0107

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2841	0.0000	0.2841	0.0936	0.0000	0.0936	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1408	0.6905	5.4628	0.0113		0.0185	0.0185		0.0185	0.0185	0.0000	994.8019	994.8019	0.3217	0.0000	1,002.8454
Total	0.1408	0.6905	5.4628	0.0113	0.2841	0.0185	0.3026	0.0936	0.0185	0.1121	0.0000	994.8019	994.8019	0.3217	0.0000	1,002.8454

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1616	0.0448	6.4000e-004	0.0184	1.5300e-003	0.0199	5.0500e-003	1.4700e-003	6.5200e-003	0.0000	63.1881	63.1881	2.6800e-003	0.0100	66.2388
Vendor	7.0600e-003	0.2216	0.0527	1.0500e-003	0.0383	3.1200e-003	0.0414	0.0110	2.9800e-003	0.0140	0.0000	102.6286	102.6286	2.7600e-003	0.0151	107.2022
Worker	2.2000e-003	1.9800e-003	0.0242	7.0000e-005	8.2200e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003	0.0000	6.5177	6.5177	1.3000e-004	1.6000e-004	6.5697
Total	0.0137	0.3852	0.1218	1.7600e-003	0.0649	4.6900e-003	0.0696	0.0183	4.4900e-003	0.0228	0.0000	172.3343	172.3343	5.5700e-003	0.0253	180.0107

3.4 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7849	0.0000	0.7849	0.2924	0.0000	0.2924	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7060	5.8295	5.2447	0.0168		0.2227	0.2227		0.2049	0.2049	0.0000	1,478.8061	1,478.8061	0.4783	0.0000	1,490.7630
Total	0.7060	5.8295	5.2447	0.0168	0.7849	0.2227	1.0076	0.2924	0.2049	0.4973	0.0000	1,478.8061	1,478.8061	0.4783	0.0000	1,490.7630

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

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3800e-003	0.1957	0.0637	9.1000e-004	0.0273	1.8400e-003	0.0292	7.5100e-003	1.7600e-003	9.2700e-003	0.0000	89.7727	89.7727	3.7900e-003	0.0142	94.1075
Vendor	5.3700e-003	0.2480	0.0629	1.5000e-003	0.0569	2.3400e-003	0.0592	0.0164	2.2400e-003	0.0186	0.0000	146.3103	146.3103	3.7800e-003	0.0215	152.8115
Worker	3.0200e-003	2.5700e-003	0.0329	1.0000e-004	0.0122	6.0000e-005	0.0123	3.2400e-003	5.0000e-005	3.3000e-003	0.0000	9.4283	9.4283	1.7000e-004	2.2000e-004	9.4989
Total	0.0128	0.4462	0.1594	2.5100e-003	0.0964	4.2400e-003	0.1006	0.0271	4.0500e-003	0.0312	0.0000	245.5112	245.5112	7.7400e-003	0.0360	256.4179

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3532	0.0000	0.3532	0.1316	0.0000	0.1316	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2092	1.0259	8.1161	0.0168		0.0275	0.0275		0.0275	0.0275	0.0000	1,478.8044	1,478.8044	0.4783	0.0000	1,490.7612
Total	0.2092	1.0259	8.1161	0.0168	0.3532	0.0275	0.3807	0.1316	0.0275	0.1590	0.0000	1,478.8044	1,478.8044	0.4783	0.0000	1,490.7612

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

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3800e-003	0.1957	0.0637	9.1000e-004	0.0273	1.8400e-003	0.0292	7.5100e-003	1.7600e-003	9.2700e-003	0.0000	89.7727	89.7727	3.7900e-003	0.0142	94.1075
Vendor	5.3700e-003	0.2480	0.0629	1.5000e-003	0.0569	2.3400e-003	0.0592	0.0164	2.2400e-003	0.0186	0.0000	146.3103	146.3103	3.7800e-003	0.0215	152.8115
Worker	3.0200e-003	2.5700e-003	0.0329	1.0000e-004	0.0122	6.0000e-005	0.0123	3.2400e-003	5.0000e-005	3.3000e-003	0.0000	9.4283	9.4283	1.7000e-004	2.2000e-004	9.4989
Total	0.0128	0.4462	0.1594	2.5100e-003	0.0964	4.2400e-003	0.1006	0.0271	4.0500e-003	0.0312	0.0000	245.5112	245.5112	7.7400e-003	0.0360	256.4179

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3167	0.0000	0.3167	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2200e-003	0.0175	0.0167	5.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	4.7409	4.7409	1.5300e-003	0.0000	4.7792
Total	2.2200e-003	0.0175	0.0167	5.0000e-005	0.3167	6.6000e-004	0.3174	0.0350	6.1000e-004	0.0356	0.0000	4.7409	4.7409	1.5300e-003	0.0000	4.7792

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.3000e-004	2.0000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2828	0.2828	1.0000e-005	4.0000e-005	0.2964
Vendor	2.0000e-005	8.0000e-004	2.0000e-004	0.0000	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4626	0.4626	1.0000e-005	7.0000e-005	0.4831
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0296	0.0296	0.0000	0.0000	0.0298
Total	4.0000e-005	1.4400e-003	5.0000e-004	0.0000	3.1000e-004	2.0000e-005	3.2000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.7749	0.7749	2.0000e-005	1.1000e-004	0.8093

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1425	0.0000	0.1425	0.0158	0.0000	0.0158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	3.2900e-003	0.0260	5.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	4.7409	4.7409	1.5300e-003	0.0000	4.7792
Total	6.7000e-004	3.2900e-003	0.0260	5.0000e-005	0.1425	9.0000e-005	0.1426	0.0158	9.0000e-005	0.0158	0.0000	4.7409	4.7409	1.5300e-003	0.0000	4.7792

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.3000e-004	2.0000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2828	0.2828	1.0000e-005	4.0000e-005	0.2964
Vendor	2.0000e-005	8.0000e-004	2.0000e-004	0.0000	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4626	0.4626	1.0000e-005	7.0000e-005	0.4831
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0296	0.0296	0.0000	0.0000	0.0298
Total	4.0000e-005	1.4400e-003	5.0000e-004	0.0000	3.1000e-004	2.0000e-005	3.2000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.7749	0.7749	2.0000e-005	1.1000e-004	0.8093

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.6356	5.3513	5.0536	0.0138		0.2303	0.2303		0.2191	0.2191	0.0000	1,207.7174	1,207.7174	0.2975	0.0000	1,215.1543
Total	0.6356	5.3513	5.0536	0.0138		0.2303	0.2303		0.2191	0.2191	0.0000	1,207.7174	1,207.7174	0.2975	0.0000	1,215.1543

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6200e-003	0.2078	0.0494	9.9000e-004	0.0359	2.9200e-003	0.0388	0.0103	2.8000e-003	0.0131	0.0000	96.2143	96.2143	2.5900e-003	0.0142	100.5021
Worker	7.3300e-003	6.5900e-003	0.0808	2.4000e-004	0.0274	1.4000e-004	0.0275	7.2700e-003	1.3000e-004	7.4000e-003	0.0000	21.7256	21.7256	4.4000e-004	5.5000e-004	21.8991
Total	0.0140	0.2143	0.1302	1.2300e-003	0.0633	3.0600e-003	0.0663	0.0176	2.9300e-003	0.0205	0.0000	117.9398	117.9398	3.0300e-003	0.0147	122.4012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1627	0.7854	7.0289	0.0138		0.0214	0.0214		0.0214	0.0214	0.0000	1,207.7160	1,207.7160	0.2975	0.0000	1,215.1528
Total	0.1627	0.7854	7.0289	0.0138		0.0214	0.0214		0.0214	0.0214	0.0000	1,207.7160	1,207.7160	0.2975	0.0000	1,215.1528

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6200e-003	0.2078	0.0494	9.9000e-004	0.0359	2.9200e-003	0.0388	0.0103	2.8000e-003	0.0131	0.0000	96.2143	96.2143	2.5900e-003	0.0142	100.5021
Worker	7.3300e-003	6.5900e-003	0.0808	2.4000e-004	0.0274	1.4000e-004	0.0275	7.2700e-003	1.3000e-004	7.4000e-003	0.0000	21.7256	21.7256	4.4000e-004	5.5000e-004	21.8991
Total	0.0140	0.2143	0.1302	1.2300e-003	0.0633	3.0600e-003	0.0663	0.0176	2.9300e-003	0.0205	0.0000	117.9398	117.9398	3.0300e-003	0.0147	122.4012

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.7443	6.0286	6.2053	0.0172		0.2523	0.2523		0.2400	0.2400	0.0000	1,501.6595	1,501.6595	0.3683	0.0000	1,510.8681
Total	0.7443	6.0286	6.2053	0.0172		0.2523	0.2523		0.2400	0.2400	0.0000	1,501.6595	1,501.6595	0.3683	0.0000	1,510.8681

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2200e-003	0.1945	0.0493	1.1800e-003	0.0446	1.8300e-003	0.0464	0.0129	1.7500e-003	0.0146	0.0000	114.7445	114.7445	2.9700e-003	0.0169	119.8432
Worker	8.4300e-003	7.1500e-003	0.0916	2.8000e-004	0.0341	1.6000e-004	0.0342	9.0400e-003	1.5000e-004	9.1900e-003	0.0000	26.2904	26.2904	4.8000e-004	6.2000e-004	26.4872
Total	0.0127	0.2016	0.1409	1.4600e-003	0.0786	1.9900e-003	0.0806	0.0219	1.9000e-003	0.0238	0.0000	141.0349	141.0349	3.4500e-003	0.0175	146.3303

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	0.9762	8.7360	0.0172		0.0266	0.0266		0.0266	0.0266	0.0000	1,501.6577	1,501.6577	0.3683	0.0000	1,510.8663
Total	0.2022	0.9762	8.7360	0.0172		0.0266	0.0266		0.0266	0.0266	0.0000	1,501.6577	1,501.6577	0.3683	0.0000	1,510.8663

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2200e-003	0.1945	0.0493	1.1800e-003	0.0446	1.8300e-003	0.0464	0.0129	1.7500e-003	0.0146	0.0000	114.7445	114.7445	2.9700e-003	0.0169	119.8432
Worker	8.4300e-003	7.1500e-003	0.0916	2.8000e-004	0.0341	1.6000e-004	0.0342	9.0400e-003	1.5000e-004	9.1900e-003	0.0000	26.2904	26.2904	4.8000e-004	6.2000e-004	26.4872
Total	0.0127	0.2016	0.1409	1.4600e-003	0.0786	1.9900e-003	0.0806	0.0219	1.9000e-003	0.0238	0.0000	141.0349	141.0349	3.4500e-003	0.0175	146.3303

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1558	1.3110	1.4445	3.5100e-003		0.0587	0.0587		0.0546	0.0546	0.0000	307.5906	307.5906	0.0931	0.0000	309.9176
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1558	1.3110	1.4445	3.5100e-003		0.0587	0.0587		0.0546	0.0546	0.0000	307.5906	307.5906	0.0931	0.0000	309.9176

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4200e-003	0.1385	0.0330	6.6000e-004	0.0239	1.9500e-003	0.0259	6.9000e-003	1.8600e-003	8.7600e-003	0.0000	64.1428	64.1428	1.7300e-003	9.4500e-003	67.0014
Worker	1.4700e-003	1.3200e-003	0.0162	5.0000e-005	5.4800e-003	3.0000e-005	5.5100e-003	1.4500e-003	3.0000e-005	1.4800e-003	0.0000	4.3451	4.3451	9.0000e-005	1.1000e-004	4.3798
Total	5.8900e-003	0.1398	0.0491	7.1000e-004	0.0294	1.9800e-003	0.0314	8.3500e-003	1.8900e-003	0.0102	0.0000	68.4880	68.4880	1.8200e-003	9.5600e-003	71.3812

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0424	0.1836	1.9756	3.5100e-003		5.6500e-003	5.6500e-003		5.6500e-003	5.6500e-003	0.0000	307.5903	307.5903	0.0931	0.0000	309.9172
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0424	0.1836	1.9756	3.5100e-003		5.6500e-003	5.6500e-003		5.6500e-003	5.6500e-003	0.0000	307.5903	307.5903	0.0931	0.0000	309.9172

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

Mitigated Construction Off-Site

Unmitigated Construction On-Site

[illegible]

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

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

[illegible]

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

Unmitigated

[illegible]

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 6 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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

Cajon Pass High-Speed Rail Project - Construction of Segment 7

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Retail	1.00	User Defined Unit	128.74	1,400,000.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project specific landuse
- Construction Phase - Project specific schedule
- Off-road Equipment -
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Off-road Equipment - Project specific equipment
- Trips and VMT - Project specific schedule
- Demolition -
- Grading - Project specific landuse

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

Architectural Coating - Project specific coating

Vehicle Trips - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Water And Wastewater - Construction only

Construction Off-road Equipment Mitigation - Project specific mitigation methodologies

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	700,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,100,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	0.00	84,000.00
tblAreaCoating	Area_Nonresidential_Exterior	700000	0
tblAreaCoating	Area_Nonresidential_Interior	2100000	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	44.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	770.00	0.00
tblConstructionPhase	NumDays	10,850.00	863.00
tblConstructionPhase	NumDays	700.00	210.00
tblConstructionPhase	NumDays	1,085.00	419.00
tblConstructionPhase	NumDays	770.00	79.00
tblConstructionPhase	NumDays	420.00	210.00

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

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConsumerProducts	ROG_EF	1.98E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	MaterialImported	0.00	286,864.00
tblLandscapeEquipment	NumberSummerDays	250	0
tblLandUse	LandUseSquareFeet	0.00	1,400,000.00
tblLandUse	LotAcreage	0.00	128.74
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00

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

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,751.00	8,751.55
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripLength	6.90	25.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	229.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	18.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripLength	14.70	35.00

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

tblTripsAndVMT	WorkerTripLength	14.70	35.00
tblTripsAndVMT	WorkerTripNumber	43.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	4.00
tblTripsAndVMT	WorkerTripNumber	448.00	17.00
tblTripsAndVMT	WorkerTripNumber	58.00	7.00
tblTripsAndVMT	WorkerTripNumber	43.00	2.00

2.0 Emissions Summary**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.4186	11.9548	11.4319	0.0342	1.1226	0.4906	1.6131	0.1918	0.4653	0.6571	0.0000	3,023.7613	3,023.7613	0.7033	0.0469	3,055.3110
2023	1.4928	12.9587	12.1314	0.0408	1.0334	0.4898	1.5232	0.3453	0.4605	0.8058	0.0000	3,635.2870	3,635.2870	0.8361	0.0961	3,684.8296
2024	1.6318	13.8604	13.4870	0.0463	1.2019	0.5025	1.7044	0.4246	0.4711	0.8957	0.0000	4,137.7631	4,137.7631	0.9596	0.1146	4,195.9094
2025	2.6800e-003	0.0204	0.0244	7.0000e-005	4.5000e-004	7.7000e-004	1.2200e-003	1.2000e-004	7.3000e-004	8.5000e-004	0.0000	6.4871	6.4871	1.4200e-003	9.0000e-005	6.5484
Maximum	1.6318	13.8604	13.4870	0.0463	1.2019	0.5025	1.7044	0.4246	0.4711	0.8957	0.0000	4,137.7631	4,137.7631	0.9596	0.1146	4,195.9094

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.4024	2.3832	15.9385	0.0342	0.6018	0.0561	0.6579	0.1129	0.0558	0.1687	0.0000	3,023.758 1	3,023.758 1	0.7033	0.0469	3,055.307 8
2023	0.4528	3.1682	17.4156	0.0407	0.6292	0.0651	0.6943	0.2009	0.0645	0.2654	0.0000	3,635.283 5	3,635.283 5	0.8361	0.0961	3,684.826 0
2024	0.5114	3.6975	19.6122	0.0463	0.7318	0.0744	0.8063	0.2440	0.0738	0.3178	0.0000	4,137.759 1	4,137.759 1	0.9596	0.1146	4,195.905 4
2025	8.4000e- 004	4.7800e- 003	0.0345	7.0000e- 005	4.5000e- 004	1.1000e- 004	5.6000e- 004	1.2000e- 004	1.1000e- 004	2.4000e- 004	0.0000	6.4871	6.4871	1.4200e- 003	9.0000e- 005	6.5484
Maximum	0.5114	3.6975	19.6122	0.0463	0.7318	0.0744	0.8063	0.2440	0.0738	0.3178	0.0000	4,137.759 1	4,137.759 1	0.9596	0.1146	4,195.905 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.92	76.15	-42.96	0.01	41.54	86.81	55.41	41.99	86.10	68.12	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2022	6-30-2022	4.6643	0.9635
2	7-1-2022	9-30-2022	4.7155	0.9741
3	10-1-2022	12-31-2022	3.9572	0.8185
4	1-1-2023	3-31-2023	2.0884	0.4343
5	4-1-2023	6-30-2023	2.9144	0.6844
6	7-1-2023	9-30-2023	4.6048	1.2043
7	10-1-2023	12-31-2023	4.8481	1.2708
8	1-1-2024	3-31-2024	4.7350	1.3011

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

9	4-1-2024	6-30-2024	4.3042	1.1927
10	7-1-2024	9-30-2024	4.3515	1.2058
11	10-1-2024	12-31-2024	2.0287	0.4526
12	1-1-2025	3-31-2025	0.0198	0.0048
		Highest	4.8481	1.3011

Unmitigated Operational

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2022	12/1/2022	6	210	
2	Site Preparation	Site Preparation	4/1/2022	12/1/2022	6	210	
3	Building Construction	Building Construction	4/1/2022	1/1/2025	6	863	

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

4	Architectural Coating	Architectural Coating	4/1/2022	3/31/2022	6	0
5	Grading	Grading	6/1/2023	10/1/2024	6	419
6	Paving	Paving	12/1/2023	3/1/2024	6	79

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 576.13****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 84,000 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Off-Highway Trucks	5	4.00	402	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Loaders	1	4.00	203	0.36
Demolition	Surfacing Equipment	1	2.00	263	0.30
Demolition	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Preparation	Off-Highway Trucks	2	4.00	402	0.38
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Cranes	1	4.00	231	0.29

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

Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	5	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	5	4.00	402	0.38
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Pumps	1	1.00	84	0.74
Grading	Aerial Lifts	1	8.00	63	0.31
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	10	4.00	402	0.38
Grading	Off-Highway Trucks	6	4.00	402	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Air Compressors	1	2.00	78	0.48
Paving	Generator Sets	1	2.00	84	0.74
Paving	Off-Highway Trucks	4	2.00	402	0.38
Paving	Off-Highway Trucks	2	2.00	402	0.38
Paving	Other Material Handling Equipment	1	4.00	168	0.40
Paving	Pavers	1	4.00	130	0.42
Paving	Pavers	1	4.00	130	0.42
Paving	Paving Equipment	1	4.00	132	0.36
Paving	Rollers	3	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	4.00	97	0.37

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	17	5.00	0.00	8,751.55	35.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	4.00	3.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	17.00	20.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating			0.00	0.00	14.70	6.90				
Grading	23	7.00	18.00	35,858.00	35.00	25.00	15.00	LD_Mix	HDT_Mix	HHDT
Paving	17	2.00	7.00	0.00	35.00	25.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9469	0.0000	0.9469	0.1434	0.0000	0.1434	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4754	3.7648	3.9499	0.0105		0.1647	0.1647		0.1571	0.1571	0.0000	912.7374	912.7374	0.2300	0.0000	918.4874
Total	0.4754	3.7648	3.9499	0.0105	0.9469	0.1647	1.1116	0.1434	0.1571	0.3005	0.0000	912.7374	912.7374	0.2300	0.0000	918.4874

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0110	0.3635	0.1184	1.3600e-003	0.0377	3.1700e-003	0.0409	0.0104	3.0300e-003	0.0134	0.0000	134.2365	134.2365	5.6000e-003	0.0213	140.7142
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6600e-003	3.2900e-003	0.0404	1.2000e-004	0.0137	7.0000e-005	0.0138	3.6400e-003	6.0000e-005	3.7000e-003	0.0000	10.8628	10.8628	2.2000e-004	2.7000e-004	10.9496
Total	0.0146	0.3668	0.1588	1.4800e-003	0.0514	3.2400e-003	0.0547	0.0140	3.0900e-003	0.0171	0.0000	145.0993	145.0993	5.8200e-003	0.0215	151.6637

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4261	0.0000	0.4261	0.0645	0.0000	0.0645	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1217	0.5272	5.4365	0.0105		0.0162	0.0162		0.0162	0.0162	0.0000	912.7363	912.7363	0.2300	0.0000	918.4863
Total	0.1217	0.5272	5.4365	0.0105	0.4261	0.0162	0.4423	0.0645	0.0162	0.0807	0.0000	912.7363	912.7363	0.2300	0.0000	918.4863

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0110	0.3635	0.1184	1.3600e-003	0.0377	3.1700e-003	0.0409	0.0104	3.0300e-003	0.0134	0.0000	134.2365	134.2365	5.6000e-003	0.0213	140.7142
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6600e-003	3.2900e-003	0.0404	1.2000e-004	0.0137	7.0000e-005	0.0138	3.6400e-003	6.0000e-005	3.7000e-003	0.0000	10.8628	10.8628	2.2000e-004	2.7000e-004	10.9496
Total	0.0146	0.3668	0.1588	1.4800e-003	0.0514	3.2400e-003	0.0547	0.0140	3.0900e-003	0.0171	0.0000	145.0993	145.0993	5.8200e-003	0.0215	151.6637

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1837	1.4403	1.2930	4.4900e-003		0.0554	0.0554		0.0510	0.0510	0.0000	394.1813	394.1813	0.1275	0.0000	397.3684
Total	0.1837	1.4403	1.2930	4.4900e-003	0.0000	0.0554	0.0554	0.0000	0.0510	0.0510	0.0000	394.1813	394.1813	0.1275	0.0000	397.3684

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0416	9.8900e-003	2.0000e-004	7.1800e-003	5.8000e-004	7.7600e-003	2.0700e-003	5.6000e-004	2.6300e-003	0.0000	19.2429	19.2429	5.2000e-004	2.8300e-003	20.1004
Worker	2.9300e-003	2.6400e-003	0.0323	9.0000e-005	0.0110	6.0000e-005	0.0110	2.9100e-003	5.0000e-005	2.9600e-003	0.0000	8.6902	8.6902	1.7000e-004	2.2000e-004	8.7597
Total	4.2500e-003	0.0442	0.0422	2.9000e-004	0.0181	6.4000e-004	0.0188	4.9800e-003	6.1000e-004	5.5900e-003	0.0000	27.9331	27.9331	6.9000e-004	3.0500e-003	28.8601

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0549	0.2379	2.1130	4.4900e-003		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003	0.0000	394.1808	394.1808	0.1275	0.0000	397.3679
Total	0.0549	0.2379	2.1130	4.4900e-003	0.0000	7.3200e-003	7.3200e-003	0.0000	7.3200e-003	7.3200e-003	0.0000	394.1808	394.1808	0.1275	0.0000	397.3679

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0416	9.8900e-003	2.0000e-004	7.1800e-003	5.8000e-004	7.7600e-003	2.0700e-003	5.6000e-004	2.6300e-003	0.0000	19.2429	19.2429	5.2000e-004	2.8300e-003	20.1004
Worker	2.9300e-003	2.6400e-003	0.0323	9.0000e-005	0.0110	6.0000e-005	0.0110	2.9100e-003	5.0000e-005	2.9600e-003	0.0000	8.6902	8.6902	1.7000e-004	2.2000e-004	8.7597
Total	4.2500e-003	0.0442	0.0422	2.9000e-004	0.0181	6.4000e-004	0.0188	4.9800e-003	6.1000e-004	5.5900e-003	0.0000	27.9331	27.9331	6.9000e-004	3.0500e-003	28.8601

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.7167	6.0149	5.7596	0.0156		0.2619	0.2619		0.2491	0.2491	0.0000	1,358.1353	1,358.1353	0.3346	0.0000	1,366.5001
Total	0.7167	6.0149	5.7596	0.0156		0.2619	0.2619		0.2491	0.2491	0.0000	1,358.1353	1,358.1353	0.3346	0.0000	1,366.5001

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9200e-003	0.3113	0.0741	1.4800e-003	0.0538	4.3800e-003	0.0582	0.0155	4.1900e-003	0.0197	0.0000	144.1687	144.1687	3.8800e-003	0.0212	150.5936
Worker	0.0140	0.0126	0.1543	4.5000e-004	0.0523	2.7000e-004	0.0526	0.0139	2.5000e-004	0.0141	0.0000	41.5062	41.5062	8.3000e-004	1.0400e-003	41.8377
Total	0.0239	0.3239	0.2284	1.9300e-003	0.1061	4.6500e-003	0.1108	0.0294	4.4400e-003	0.0338	0.0000	185.6749	185.6749	4.7100e-003	0.0223	192.4313

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1830	0.8832	7.9596	0.0156		0.0241	0.0241		0.0241	0.0241	0.0000	1,358.1337	1,358.1337	0.3346	0.0000	1,366.4985
Total	0.1830	0.8832	7.9596	0.0156		0.0241	0.0241		0.0241	0.0241	0.0000	1,358.1337	1,358.1337	0.3346	0.0000	1,366.4985

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9200e-003	0.3113	0.0741	1.4800e-003	0.0538	4.3800e-003	0.0582	0.0155	4.1900e-003	0.0197	0.0000	144.1687	144.1687	3.8800e-003	0.0212	150.5936
Worker	0.0140	0.0126	0.1543	4.5000e-004	0.0523	2.7000e-004	0.0526	0.0139	2.5000e-004	0.0141	0.0000	41.5062	41.5062	8.3000e-004	1.0400e-003	41.8377
Total	0.0239	0.3239	0.2284	1.9300e-003	0.1061	4.6500e-003	0.1108	0.0294	4.4400e-003	0.0338	0.0000	185.6749	185.6749	4.7100e-003	0.0223	192.4313

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.8921	7.2076	7.5249	0.0206		0.3046	0.3046		0.2897	0.2897	0.0000	1,796.2655	1,796.2655	0.4407	0.0000	1,807.2830
Total	0.8921	7.2076	7.5249	0.0206		0.3046	0.3046		0.2897	0.2897	0.0000	1,796.2655	1,796.2655	0.4407	0.0000	1,807.2830

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7200e-003	0.3099	0.0786	1.8800e-003	0.0711	2.9200e-003	0.0740	0.0205	2.8000e-003	0.0233	0.0000	182.8878	182.8878	4.7300e-003	0.0269	191.0144
Worker	0.0171	0.0145	0.1862	5.8000e-004	0.0692	3.3000e-004	0.0695	0.0184	3.0000e-004	0.0187	0.0000	53.4269	53.4269	9.8000e-004	1.2600e-003	53.8268
Total	0.0239	0.3245	0.2648	2.4600e-003	0.1403	3.2500e-003	0.1435	0.0389	3.1000e-003	0.0420	0.0000	236.3147	236.3147	5.7100e-003	0.0281	244.8412

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2419	1.1677	10.5228	0.0206		0.0318	0.0318		0.0318	0.0318	0.0000	1,796.2634	1,796.2634	0.4407	0.0000	1,807.2809
Total	0.2419	1.1677	10.5228	0.0206		0.0318	0.0318		0.0318	0.0318	0.0000	1,796.2634	1,796.2634	0.4407	0.0000	1,807.2809

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7200e-003	0.3099	0.0786	1.8800e-003	0.0711	2.9200e-003	0.0740	0.0205	2.8000e-003	0.0233	0.0000	182.8878	182.8878	4.7300e-003	0.0269	191.0144
Worker	0.0171	0.0145	0.1862	5.8000e-004	0.0692	3.3000e-004	0.0695	0.0184	3.0000e-004	0.0187	0.0000	53.4269	53.4269	9.8000e-004	1.2600e-003	53.8268
Total	0.0239	0.3245	0.2648	2.4600e-003	0.1403	3.2500e-003	0.1435	0.0389	3.1000e-003	0.0420	0.0000	236.3147	236.3147	5.7100e-003	0.0281	244.8412

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.8637	6.7621	7.5159	0.0207		0.2747	0.2747		0.2608	0.2608	0.0000	1,808.1723	1,808.1723	0.4419	0.0000	1,819.2193
Total	0.8637	6.7621	7.5159	0.0207		0.2747	0.2747		0.2608	0.2608	0.0000	1,808.1723	1,808.1723	0.4419	0.0000	1,819.2193

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5200e-003	0.3159	0.0772	1.8700e-003	0.0715	2.9000e-003	0.0744	0.0206	2.7700e-003	0.0234	0.0000	181.5530	181.5530	4.6100e-003	0.0267	189.6166
Worker	0.0161	0.0129	0.1740	5.6000e-004	0.0696	3.2000e-004	0.0700	0.0185	2.9000e-004	0.0188	0.0000	52.6263	52.6263	8.9000e-004	1.1700e-003	52.9970
Total	0.0226	0.3288	0.2512	2.4300e-003	0.1412	3.2200e-003	0.1444	0.0391	3.0600e-003	0.0422	0.0000	234.1793	234.1793	5.5000e-003	0.0278	242.6136

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2435	1.1751	10.5903	0.0207		0.0320	0.0320		0.0320	0.0320	0.0000	1,808.1701	1,808.1701	0.4419	0.0000	1,819.2172
Total	0.2435	1.1751	10.5903	0.0207		0.0320	0.0320		0.0320	0.0320	0.0000	1,808.1701	1,808.1701	0.4419	0.0000	1,819.2172

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5200e-003	0.3159	0.0772	1.8700e-003	0.0715	2.9000e-003	0.0744	0.0206	2.7700e-003	0.0234	0.0000	181.5530	181.5530	4.6100e-003	0.0267	189.6166
Worker	0.0161	0.0129	0.1740	5.6000e-004	0.0696	3.2000e-004	0.0700	0.0185	2.9000e-004	0.0188	0.0000	52.6263	52.6263	8.9000e-004	1.1700e-003	52.9970
Total	0.0226	0.3288	0.2512	2.4300e-003	0.1412	3.2200e-003	0.1444	0.0391	3.0600e-003	0.0422	0.0000	234.1793	234.1793	5.5000e-003	0.0278	242.6136

3.4 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6100e-003	0.0194	0.0237	7.0000e-005		7.6000e-004	7.6000e-004		7.2000e-004	7.2000e-004	0.0000	5.7567	5.7567	1.4000e-003	0.0000	5.7917
Total	2.6100e-003	0.0194	0.0237	7.0000e-005		7.6000e-004	7.6000e-004		7.2000e-004	7.2000e-004	0.0000	5.7567	5.7567	1.4000e-003	0.0000	5.7917

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	1.0000e-003	2.4000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5669	0.5669	1.0000e-005	8.0000e-005	0.5921
Worker	5.0000e-005	4.0000e-005	5.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1635	0.1635	0.0000	0.0000	0.1646
Total	7.0000e-005	1.0400e-003	7.5000e-004	1.0000e-005	4.5000e-004	1.0000e-005	4.6000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	0.7304	0.7304	1.0000e-005	8.0000e-005	0.7567

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8000e-004	3.7400e-003	0.0337	7.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.7567	5.7567	1.4000e-003	0.0000	5.7917
Total	7.8000e-004	3.7400e-003	0.0337	7.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.7567	5.7567	1.4000e-003	0.0000	5.7917

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	1.0000e-003	2.4000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5669	0.5669	1.0000e-005	8.0000e-005	0.5921
Worker	5.0000e-005	4.0000e-005	5.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1635	0.1635	0.0000	0.0000	0.1646
Total	7.0000e-005	1.0400e-003	7.5000e-004	1.0000e-005	4.5000e-004	1.0000e-005	4.6000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	0.7304	0.7304	1.0000e-005	8.0000e-005	0.7567

Unmitigated Construction On-Site

[illegible]

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

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Architectural Coating - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7350	0.0000	0.7350	0.2626	0.0000	0.2626	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5307	4.3416	3.7878	0.0126		0.1650	0.1650		0.1518	0.1518	0.0000	1,110.3178	1,110.3178	0.3591	0.0000	1,119.2953
Total	0.5307	4.3416	3.7878	0.0126	0.7350	0.1650	0.9000	0.2626	0.1518	0.4144	0.0000	1,110.3178	1,110.3178	0.3591	0.0000	1,119.2953

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0162	0.7248	0.2358	3.3600e-003	0.1012	6.8200e-003	0.1080	0.0278	6.5300e-003	0.0343	0.0000	332.4524	332.4524	0.0140	0.0527	348.5054
Vendor	3.5500e-003	0.1636	0.0415	9.9000e-004	0.0375	1.5400e-003	0.0391	0.0108	1.4800e-003	0.0123	0.0000	96.5437	96.5437	2.5000e-003	0.0142	100.8335
Worker	4.1400e-003	3.5100e-003	0.0450	1.4000e-004	0.0167	8.0000e-005	0.0168	4.4400e-003	7.0000e-005	4.5100e-003	0.0000	12.9034	12.9034	2.4000e-004	3.0000e-004	13.0000
Total	0.0239	0.8919	0.3222	4.4900e-003	0.1554	8.4400e-003	0.1639	0.0431	8.0800e-003	0.0511	0.0000	441.8995	441.8995	0.0168	0.0672	462.3390

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3307	0.0000	0.3307	0.1182	0.0000	0.1182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1566	0.7484	6.0009	0.0126		0.0206	0.0206		0.0206	0.0206	0.0000	1,110.3165	1,110.3165	0.3591	0.0000	1,119.2940
Total	0.1566	0.7484	6.0009	0.0126	0.3307	0.0206	0.3514	0.1182	0.0206	0.1388	0.0000	1,110.3165	1,110.3165	0.3591	0.0000	1,119.2940

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0162	0.7248	0.2358	3.3600e-003	0.1012	6.8200e-003	0.1080	0.0278	6.5300e-003	0.0343	0.0000	332.4524	332.4524	0.0140	0.0527	348.5054
Vendor	3.5500e-003	0.1636	0.0415	9.9000e-004	0.0375	1.5400e-003	0.0391	0.0108	1.4800e-003	0.0123	0.0000	96.5437	96.5437	2.5000e-003	0.0142	100.8335
Worker	4.1400e-003	3.5100e-003	0.0450	1.4000e-004	0.0167	8.0000e-005	0.0168	4.4400e-003	7.0000e-005	4.5100e-003	0.0000	12.9034	12.9034	2.4000e-004	3.0000e-004	13.0000
Total	0.0239	0.8919	0.3222	4.4900e-003	0.1554	8.4400e-003	0.1639	0.0431	8.0800e-003	0.0511	0.0000	441.8995	441.8995	0.0168	0.0672	462.3390

3.6 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8547	0.0000	0.8547	0.3284	0.0000	0.3284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6714	5.2448	4.8383	0.0163		0.1983	0.1983		0.1824	0.1824	0.0000	1,432.2405	1,432.2405	0.4632	0.0000	1,443.8209
Total	0.6714	5.2448	4.8383	0.0163	0.8547	0.1983	1.0529	0.3284	0.1824	0.5108	0.0000	1,432.2405	1,432.2405	0.4632	0.0000	1,443.8209

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

3.6 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.9375	0.3046	4.2600e-003	0.1305	8.6800e-003	0.1392	0.0359	8.3100e-003	0.0442	0.0000	421.3048	421.3048	0.0176	0.0668	441.6422
Vendor	4.4100e-003	0.2137	0.0522	1.2600e-003	0.0484	1.9600e-003	0.0504	0.0140	1.8700e-003	0.0158	0.0000	122.8085	122.8085	3.1200e-003	0.0180	128.2630
Worker	4.9800e-003	4.0000e-003	0.0539	1.7000e-004	0.0216	1.0000e-004	0.0217	5.7200e-003	9.0000e-005	5.8100e-003	0.0000	16.2867	16.2867	2.7000e-004	3.6000e-004	16.4015
Total	0.0302	1.1552	0.4107	5.6900e-003	0.2004	0.0107	0.2112	0.0555	0.0103	0.0658	0.0000	560.4000	560.4000	0.0210	0.0852	586.3066

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3846	0.0000	0.3846	0.1478	0.0000	0.1478	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2019	0.9651	7.7388	0.0163		0.0266	0.0266		0.0266	0.0266	0.0000	1,432.2388	1,432.2388	0.4632	0.0000	1,443.8191
Total	0.2019	0.9651	7.7388	0.0163	0.3846	0.0266	0.4112	0.1478	0.0266	0.1744	0.0000	1,432.2388	1,432.2388	0.4632	0.0000	1,443.8191

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.9375	0.3046	4.2600e-003	0.1305	8.6800e-003	0.1392	0.0359	8.3100e-003	0.0442	0.0000	421.3048	421.3048	0.0176	0.0668	441.6422
Vendor	4.4100e-003	0.2137	0.0522	1.2600e-003	0.0484	1.9600e-003	0.0504	0.0140	1.8700e-003	0.0158	0.0000	122.8085	122.8085	3.1200e-003	0.0180	128.2630
Worker	4.9800e-003	4.0000e-003	0.0539	1.7000e-004	0.0216	1.0000e-004	0.0217	5.7200e-003	9.0000e-005	5.8100e-003	0.0000	16.2867	16.2867	2.7000e-004	3.6000e-004	16.4015
Total	0.0302	1.1552	0.4107	5.6900e-003	0.2004	0.0107	0.2112	0.0555	0.0103	0.0658	0.0000	560.4000	560.4000	0.0210	0.0852	586.3066

3.7 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.1839	0.2276	5.1000e-004		8.3500e-003	8.3500e-003		7.7400e-003	7.7400e-003	0.0000	44.6314	44.6314	0.0136	0.0000	44.9721
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0219	0.1839	0.2276	5.1000e-004		8.3500e-003	8.3500e-003		7.7400e-003	7.7400e-003	0.0000	44.6314	44.6314	0.0136	0.0000	44.9721

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

3.7 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.0400e-003	2.2900e-003	5.0000e-005	2.0700e-003	9.0000e-005	2.1600e-003	6.0000e-004	8.0000e-005	6.8000e-004	0.0000	5.3342	5.3342	1.4000e-004	7.8000e-004	5.5713
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5238	0.5238	1.0000e-005	1.0000e-005	0.5277
Total	3.7000e-004	9.1800e-003	4.1200e-003	6.0000e-005	2.7500e-003	9.0000e-005	2.8400e-003	7.8000e-004	8.0000e-005	8.6000e-004	0.0000	5.8580	5.8580	1.5000e-004	7.9000e-004	6.0990

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1600e-003	0.0267	0.3008	5.1000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.6313	44.6313	0.0136	0.0000	44.9721
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1600e-003	0.0267	0.3008	5.1000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.6313	44.6313	0.0136	0.0000	44.9721

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	9.0400e-003	2.2900e-003	5.0000e-005	2.0700e-003	9.0000e-005	2.1600e-003	6.0000e-004	8.0000e-005	6.8000e-004	0.0000	5.3342	5.3342	1.4000e-004	7.8000e-004	5.5713
Worker	1.7000e-004	1.4000e-004	1.8300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5238	0.5238	1.0000e-005	1.0000e-005	0.5277
Total	3.7000e-004	9.1800e-003	4.1200e-003	6.0000e-005	2.7500e-003	9.0000e-005	2.8400e-003	7.8000e-004	8.0000e-005	8.6000e-004	0.0000	5.8580	5.8580	1.5000e-004	7.9000e-004	6.0990

3.7 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0432	0.3506	0.4629	1.0400e-003		0.0155	0.0155		0.0144	0.0144	0.0000	91.0006	91.0006	0.0278	0.0000	91.6948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0432	0.3506	0.4629	1.0400e-003		0.0155	0.0155		0.0144	0.0144	0.0000	91.0006	91.0006	0.0278	0.0000	91.6948

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0187	4.5600e-003	1.1000e-004	4.2300e-003	1.7000e-004	4.4000e-003	1.2200e-003	1.6000e-004	1.3800e-003	0.0000	10.7255	10.7255	2.7000e-004	1.5800e-003	11.2019
Worker	3.2000e-004	2.6000e-004	3.4600e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0450	1.0450	2.0000e-005	2.0000e-005	1.0524
Total	7.1000e-004	0.0189	8.0200e-003	1.2000e-004	5.6100e-003	1.8000e-004	5.7900e-003	1.5900e-003	1.7000e-004	1.7500e-003	0.0000	11.7705	11.7705	2.9000e-004	1.6000e-003	12.2543

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.0544	0.6132	1.0400e-003		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	91.0005	91.0005	0.0278	0.0000	91.6947
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0126	0.0544	0.6132	1.0400e-003		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	91.0005	91.0005	0.0278	0.0000	91.6947

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0187	4.5600e-003	1.1000e-004	4.2300e-003	1.7000e-004	4.4000e-003	1.2200e-003	1.6000e-004	1.3800e-003	0.0000	10.7255	10.7255	2.7000e-004	1.5800e-003	11.2019
Worker	3.2000e-004	2.6000e-004	3.4600e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0450	1.0450	2.0000e-005	2.0000e-005	1.0524
Total	7.1000e-004	0.0189	8.0200e-003	1.2000e-004	5.6100e-003	1.8000e-004	5.7900e-003	1.5900e-003	1.7000e-004	1.7500e-003	0.0000	11.7705	11.7705	2.9000e-004	1.6000e-003	12.2543

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Retail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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

[illegible]

Unmitigated

[illegible]

Cajon Pass High-Speed Rail Project - Construction of Segment 7 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail**7.1 Mitigation Measures Water**

Cajon Pass High-Speed Rail Project - Construction of Segment 7 - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 7 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cajon Pass High-Speed Rail Project - Construction of Segment 7 - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Cajon Pass High-Speed Rail Project - Construction of Segment 7 - San Bernardino-South Coast County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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Appendix B

Table B-1. VOC Emissions from Asphalt Paving Activities at the Hesperia Passenger Station Parking Lot
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Calendar Year	Days in Phase	Paving Area ¹ (acre)	VOC Off-Gassing Emission Factor ² (lb/acre)	Paving Off-Gassing VOC Emissions ³ (tons/year)
Segment 3	Paving	2023	157	3.24	2.62	1.27E-03
		2024	314			2.55E-03
		2025	52			4.22E-04

Notes:

¹ Project-specific data.

² CalEEMod[®] default value.

³ Paving emissions calculated following guidance in the CalEEMod User's Guide, Appendix A. Refer to Section 5 of the report for further details.

Abbreviations:

CalEEMod[®] - California Emissions Estimator Model

lb - pounds

VOC - volatile organic compounds

Table B-2. VOC Emissions for Architectural Coatings Use in Parking Areas

Brightline West Cajon Pass High-Speed Rail Project

San Bernardino County, California

Land Use Type	Parking Capacity ¹ (spaces)	Parking Area ¹ (square feet)	Construction Segment #	Construction Phase Name	Calendar Year	Start Date	End Date	VOC Emissions from Architectural Coatings ³ (tons/year)
Parking Lot	360	144,000	Segment 3	Paving	2023	7/1/2023	12/31/2023	1.50E-02
					2024	1/1/2024	12/31/2024	3.01E-02
					2025	1/1/2025	3/1/2025	4.98E-03
Parking Structure	3,500	1,400,000	Segment 7	Paving	2023	12/1/2023	12/31/2023	6.41E-02
					2024	1/1/2024	3/1/2024	1.31E-01

Conversion Factors:

454 g/lb
3.79 L/gal
180 ft²/gal
365 days/year
2000 lb/ton

Constants:¹

Painted Area in Parking Structures² 6 %
Parking Paint VOC Content (MDAQMD)³ 250 g/L
Parking Paint VOC Content (SCAQMD)³ 100 g/L

Notes:

¹ Project specific data.

² CalEEMod® default value.

³ CalEEMod® default data for San Bernardino - Mojave Desert (Segment 3) and San Bernardino - South Coast (Segment 7) regions.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
ft - feet
g - gram
gal - gallon
L - liter

lb - pound
MDAQMD - Mojave Desert Air Quality Management District
SCAQMD - South Coast Air Quality Management District
VOC - volatile organic compound

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod), 2021.
Available online at <http://www.caleemod.com/>.

Table B-3. Project Construction Emissions by Construction Segment, Construction Phase, and Air District
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Year	Source	Air District	Mitigated Project Construction Emissions ^{1,2}										GHG ³ (MT CO ₂ e/yr)
					ROG (ton/yr)	NO _x (ton/yr)	CO (ton/yr)	SO ₂ (ton/yr)	Fugitive PM ₁₀ (ton/yr)	Exhaust PM ₁₀ (ton/yr)	Total PM ₁₀ (ton/year)	Fugitive PM _{2.5} (ton/year)	Exhaust PM _{2.5} (ton/yr)	Total PM _{2.5} (ton/yr)	
Segment 1	Demolition	2022	On-site	MDAQMD	0.046	0.198	1.982	0.004	0.091	0.006	0.097	0.014	0.006	0.020	341.659
Segment 1	Demolition	2022	Off-site	MDAQMD	0.003	0.078	0.037	0.000	0.012	0.001	0.013	0.003	0.001	0.004	32.980
Segment 1	Site Preparation	2022	On-site	MDAQMD	0.028	0.120	1.067	0.002	0.000	0.004	0.004	0.000	0.004	0.004	200.576
Segment 1	Site Preparation	2022	Off-site	MDAQMD	0.001	0.015	0.012	0.000	0.005	0.000	0.005	0.001	0.000	0.002	8.975
Segment 1	Building Construction	2022	On-site	MDAQMD	0.207	0.996	9.039	0.018	0.000	0.027	0.027	0.000	0.027	0.027	1549.873
Segment 1	Building Construction	2022	Off-site	MDAQMD	0.021	0.306	0.202	0.002	0.096	0.004	0.100	0.027	0.004	0.031	178.303
Segment 1	Building Construction	2023	On-site	MDAQMD	0.245	1.182	10.723	0.021	0.000	0.032	0.032	0.000	0.032	0.032	1839.349
Segment 1	Building Construction	2023	Off-site	MDAQMD	0.019	0.275	0.209	0.002	0.113	0.003	0.116	0.032	0.003	0.034	203.524
Segment 1	Building Construction	2024	On-site	MDAQMD	0.083	0.398	3.609	0.007	0.000	0.011	0.011	0.000	0.011	0.011	619.128
Segment 1	Building Construction	2024	Off-site	MDAQMD	0.006	0.093	0.066	0.001	0.038	0.001	0.039	0.011	0.001	0.012	67.448
Segment 1	Paving	2023	On-site	MDAQMD	0.006	0.027	0.301	0.001	0.000	0.001	0.001	0.000	0.001	0.001	44.972
Segment 1	Paving	2023	Off-site	MDAQMD	0.000	0.007	0.003	0.000	0.002	0.000	0.002	0.001	0.000	0.001	4.507
Segment 1	Grading	2023	On-site	MDAQMD	0.150	0.730	5.798	0.012	0.402	0.020	0.421	0.138	0.020	0.158	1069.403
Segment 1	Grading	2023	Off-site	MDAQMD	0.037	1.487	0.507	0.007	0.237	0.014	0.251	0.066	0.013	0.079	748.502
Segment 1	Grading	2024	On-site	MDAQMD	0.169	0.821	6.516	0.014	0.428	0.022	0.450	0.153	0.022	0.175	1202.045
Segment 1	Grading	2024	Off-site	MDAQMD	0.040	1.678	0.567	0.008	0.266	0.016	0.282	0.074	0.015	0.089	826.985
Segment 2	Demolition	2022	On-site	MDAQMD	0.046	0.198	1.982	0.004	0.139	0.006	0.145	0.021	0.006	0.027	341.659
Segment 2	Demolition	2022	Off-site	MDAQMD	0.005	0.118	0.058	0.001	0.019	0.001	0.020	0.005	0.001	0.006	50.706
Segment 2	Site Preparation	2022	On-site	MDAQMD	0.028	0.120	1.067	0.002	0.000	0.004	0.004	0.000	0.004	0.004	200.576
Segment 2	Site Preparation	2022	Off-site	MDAQMD	0.002	0.022	0.021	0.000	0.009	0.000	0.009	0.003	0.000	0.003	14.568
Segment 2	Building Construction	2022	On-site	MDAQMD	0.129	0.617	5.625	0.011	0.000	0.017	0.017	0.000	0.017	0.017	961.984
Segment 2	Building Construction	2022	Off-site	MDAQMD	0.016	0.227	0.155	0.001	0.073	0.003	0.076	0.020	0.003	0.023	133.872
Segment 2	Building Construction	2023	On-site	MDAQMD	0.254	1.218	11.107	0.022	0.000	0.033	0.033	0.000	0.033	0.033	1900.330
Segment 2	Building Construction	2023	Off-site	MDAQMD	0.024	0.340	0.269	0.003	0.144	0.003	0.147	0.040	0.003	0.043	254.392
Segment 2	Building Construction	2024	On-site	MDAQMD	0.064	0.309	2.812	0.005	0.000	0.008	0.008	0.000	0.008	0.008	481.260
Segment 2	Building Construction	2024	Off-site	MDAQMD	0.006	0.087	0.064	0.001	0.036	0.001	0.037	0.010	0.001	0.011	63.425
Segment 2	Paving	2022	On-site	MDAQMD	0.032	0.138	1.486	0.003	0.000	0.004	0.004	0.000	0.004	0.004	233.176
Segment 2	Paving	2022	Off-site	MDAQMD	0.003	0.053	0.025	0.000	0.013	0.001	0.014	0.004	0.001	0.004	28.501
Segment 2	Paving	2023	On-site	MDAQMD	0.063	0.273	2.935	0.005	0.000	0.008	0.008	0.000	0.008	0.008	460.658
Segment 2	Paving	2023	Off-site	MDAQMD	0.004	0.079	0.042	0.001	0.026	0.001	0.027	0.007	0.001	0.008	54.086
Segment 2	Paving	2024	On-site	MDAQMD	0.006	0.025	0.263	0.000	0.000	0.001	0.001	0.000	0.001	0.001	41.351
Segment 2	Paving	2024	Off-site	MDAQMD	0.000	0.007	0.004	0.000	0.002	0.000	0.002	0.001	0.000	0.001	4.783
Segment 2	Grading	2023	On-site	MDAQMD	0.111	0.541	4.294	0.009	0.302	0.015	0.317	0.103	0.015	0.118	791.386
Segment 2	Grading	2023	Off-site	MDAQMD	0.008	0.288	0.101	0.002	0.057	0.003	0.060	0.016	0.003	0.019	159.444
Segment 2	Grading	2024	On-site	MDAQMD	0.167	0.813	6.454	0.013	0.383	0.022	0.405	0.147	0.022	0.169	1189.840
Segment 2	Grading	2024	Off-site	MDAQMD	0.012	0.436	0.149	0.002	0.086	0.004	0.090	0.024	0.004	0.028	235.913
Segment 3	Site Preparation	2022	On-site	MDAQMD	0.028	0.120	1.067	0.002	0.000	0.004	0.004	0.000	0.004	0.004	200.576
Segment 3	Site Preparation	2022	Off-site	MDAQMD	0.001	0.015	0.012	0.000	0.005	0.000	0.005	0.001	0.000	0.002	8.975
Segment 3	Building Construction	2023	On-site	MDAQMD	0.113	0.523	4.916	0.010	0.000	0.015	0.015	0.000	0.015	0.015	846.906

Table B-3. Project Construction Emissions by Construction Segment, Construction Phase, and Air District
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Year	Source	Air District	Mitigated Project Construction Emissions ^{1,2}										GHG ³ (MT CO ₂ e/yr)
					ROG (ton/yr)	NO _x (ton/yr)	CO (ton/yr)	SO ₂ (ton/yr)	Fugitive PM ₁₀ (ton/yr)	Exhaust PM ₁₀ (ton/yr)	Total PM ₁₀ (ton/year)	Fugitive PM _{2.5} (ton/year)	Exhaust PM _{2.5} (ton/yr)	Total PM _{2.5} (ton/yr)	
Segment 3	Building Construction	2023	Off-site	MDAQMD	0.003	0.065	0.035	0.000	0.022	0.001	0.022	0.006	0.001	0.007	44.785
Segment 3	Building Construction	2024	On-site	MDAQMD	0.145	0.674	6.339	0.012	0.000	0.019	0.019	0.000	0.019	0.019	1092.405
Segment 3	Building Construction	2024	Off-site	MDAQMD	0.004	0.085	0.043	0.001	0.028	0.001	0.029	0.008	0.001	0.009	56.909
Segment 3	Demolition	2023	On-site	MDAQMD	0.094	0.407	4.176	0.008	0.080	0.013	0.092	0.012	0.013	0.025	708.708
Segment 3	Demolition	2023	Off-site	MDAQMD	0.003	0.057	0.038	0.000	0.013	0.001	0.014	0.004	0.000	0.004	29.611
Segment 3	Demolition	2024	On-site	MDAQMD	0.188	0.815	8.351	0.016	0.159	0.025	0.184	0.024	0.025	0.049	1417.726
Segment 3	Demolition	2024	Off-site	MDAQMD	0.006	0.114	0.074	0.001	0.026	0.001	0.027	0.007	0.001	0.008	58.157
Segment 3	Demolition	2025	On-site	MDAQMD	0.017	0.073	0.745	0.001	0.014	0.002	0.016	0.002	0.002	0.004	126.386
Segment 3	Demolition	2025	Off-site	MDAQMD	0.001	0.010	0.006	0.000	0.002	0.000	0.002	0.001	0.000	0.001	5.073
Segment 3	Grading	2023	On-site	MDAQMD	0.125	0.599	4.819	0.010	0.360	0.016	0.376	0.086	0.016	0.102	888.904
Segment 3	Grading	2023	Off-site	MDAQMD	0.007	0.172	0.085	0.001	0.050	0.002	0.052	0.014	0.002	0.016	110.276
Segment 3	Grading	2024	On-site	MDAQMD	0.249	1.199	9.638	0.020	0.466	0.033	0.499	0.144	0.033	0.177	1778.187
Segment 3	Grading	2024	Off-site	MDAQMD	0.014	0.346	0.163	0.002	0.100	0.003	0.103	0.028	0.003	0.031	217.273
Segment 3	Grading	2025	On-site	MDAQMD	0.186	0.897	7.213	0.015	0.413	0.025	0.437	0.115	0.025	0.140	1330.265
Segment 3	Grading	2025	Off-site	MDAQMD	0.010	0.257	0.117	0.002	0.075	0.002	0.077	0.021	0.002	0.023	159.315
Segment 3	Paving	2023	On-site	MDAQMD	0.035	0.150	1.652	0.003	0.000	0.005	0.005	0.000	0.005	0.005	252.328
Segment 3	Paving	2023	Off-site	MDAQMD	0.005	0.127	0.059	0.001	0.039	0.001	0.040	0.011	0.001	0.012	84.862
Segment 3	Paving	2024	On-site	MDAQMD	0.069	0.299	3.304	0.006	0.000	0.009	0.009	0.000	0.009	0.009	504.771
Segment 3	Paving	2024	Off-site	MDAQMD	0.010	0.257	0.113	0.002	0.078	0.002	0.080	0.022	0.002	0.024	167.281
Segment 3	Paving	2025	On-site	MDAQMD	0.011	0.050	0.547	0.001	0.000	0.002	0.002	0.000	0.002	0.002	83.564
Segment 3	Paving	2025	Off-site	MDAQMD	0.002	0.042	0.018	0.000	0.013	0.000	0.013	0.004	0.000	0.004	27.148
Segment 3	Architectural Coating ⁴	2023	On-site	MDAQMD	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 3	Asphalt Paving ⁴	2023	On-site	MDAQMD	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 3	Architectural Coating ⁴	2024	On-site	MDAQMD	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 3	Asphalt Paving ⁴	2024	On-site	MDAQMD	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 3	Architectural Coating ⁴	2025	On-site	MDAQMD	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 3	Asphalt Paving ⁴	2025	On-site	MDAQMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 4a	Demolition	2023	On-site	MDAQMD	0.052	0.226	2.319	0.004	0.223	0.007	0.230	0.034	0.007	0.041	393.536
Segment 4a	Demolition	2023	Off-site	MDAQMD	0.006	0.157	0.075	0.001	0.025	0.001	0.026	0.007	0.001	0.008	73.894
Segment 4a	Demolition	2024	On-site	MDAQMD	0.000	0.001	0.015	0.000	0.001	0.000	0.001	0.000	0.000	0.000	2.507
Segment 4a	Demolition	2024	Off-site	MDAQMD	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.462
Segment 4a	Site Preparation	2023	On-site	MDAQMD	0.023	0.099	0.877	0.002	0.000	0.003	0.003	0.000	0.003	0.003	165.086
Segment 4a	Site Preparation	2023	Off-site	MDAQMD	0.001	0.014	0.016	0.000	0.008	0.000	0.008	0.002	0.000	0.002	11.545
Segment 4a	Site Preparation	2024	On-site	MDAQMD	0.000	0.001	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.052
Segment 4a	Site Preparation	2024	Off-site	MDAQMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072
Segment 4a	Grading	2023	On-site	MDAQMD	0.079	0.375	3.032	0.006	0.164	0.010	0.175	0.031	0.010	0.042	563.800
Segment 4a	Grading	2023	Off-site	MDAQMD	0.018	0.713	0.250	0.003	0.116	0.007	0.122	0.032	0.006	0.038	359.938
Segment 4a	Grading	2024	On-site	MDAQMD	0.158	0.750	6.063	0.013	0.194	0.021	0.215	0.048	0.021	0.068	1127.814
Segment 4a	Grading	2024	Off-site	MDAQMD	0.036	1.431	0.496	0.007	0.231	0.013	0.245	0.064	0.013	0.077	707.702

Table B-3. Project Construction Emissions by Construction Segment, Construction Phase, and Air District
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Year	Source	Air District	Mitigated Project Construction Emissions ^{1,2}										GHG ³ (MT CO ₂ e/yr)
					ROG (ton/yr)	NO _x (ton/yr)	CO (ton/yr)	SO ₂ (ton/yr)	Fugitive PM ₁₀ (ton/yr)	Exhaust PM ₁₀ (ton/yr)	Total PM ₁₀ (ton/year)	Fugitive PM _{2.5} (ton/year)	Exhaust PM _{2.5} (ton/yr)	Total PM _{2.5} (ton/yr)	
Segment 4a	Grading	2025	On-site	MDAQMD	0.014	0.067	0.541	0.001	0.140	0.002	0.142	0.018	0.002	0.020	100.526
Segment 4a	Grading	2025	Off-site	MDAQMD	0.003	0.126	0.044	0.001	0.021	0.001	0.022	0.006	0.001	0.007	61.776
Segment 4a	Building Construction	2023	On-site	MDAQMD	0.079	0.377	3.482	0.007	0.000	0.010	0.010	0.000	0.010	0.010	595.543
Segment 4a	Building Construction	2023	Off-site	MDAQMD	0.004	0.067	0.047	0.000	0.026	0.001	0.027	0.007	0.001	0.008	48.878
Segment 4a	Building Construction	2024	On-site	MDAQMD	0.079	0.377	3.482	0.007	0.000	0.010	0.010	0.000	0.010	0.010	595.656
Segment 4a	Building Construction	2024	Off-site	MDAQMD	0.004	0.068	0.044	0.000	0.026	0.001	0.027	0.007	0.001	0.008	48.140
Segment 4a	Paving	2023	On-site	MDAQMD	0.018	0.076	0.820	0.001	0.000	0.002	0.002	0.000	0.002	0.002	128.718
Segment 4a	Paving	2023	Off-site	MDAQMD	0.001	0.031	0.014	0.000	0.009	0.000	0.010	0.003	0.000	0.003	20.450
Segment 4a	Paving	2024	On-site	MDAQMD	0.003	0.014	0.146	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.962
Segment 4a	Paving	2024	Off-site	MDAQMD	0.000	0.006	0.002	0.000	0.002	0.000	0.002	0.000	0.000	0.001	3.595
Segment 4b	Demolition	2023	On-site	SCAQMD	0.042	0.181	1.857	0.004	0.176	0.006	0.182	0.027	0.006	0.032	315.172
Segment 4b	Demolition	2023	Off-site	SCAQMD	0.004	0.125	0.060	0.001	0.020	0.001	0.021	0.006	0.001	0.007	59.180
Segment 4b	Demolition	2024	On-site	SCAQMD	0.000	0.001	0.012	0.000	0.001	0.000	0.001	0.000	0.000	0.000	2.008
Segment 4b	Demolition	2024	Off-site	SCAQMD	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.370
Segment 4b	Site Preparation	2023	On-site	SCAQMD	0.018	0.079	0.703	0.001	0.000	0.002	0.002	0.000	0.002	0.002	132.213
Segment 4b	Site Preparation	2023	Off-site	SCAQMD	0.001	0.011	0.012	0.000	0.006	0.000	0.006	0.002	0.000	0.002	9.246
Segment 4b	Site Preparation	2024	On-site	SCAQMD	0.000	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.842
Segment 4b	Site Preparation	2024	Off-site	SCAQMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.058
Segment 4b	Grading	2023	On-site	SCAQMD	0.063	0.300	2.428	0.005	0.130	0.008	0.138	0.025	0.008	0.033	451.532
Segment 4b	Grading	2023	Off-site	SCAQMD	0.014	0.571	0.200	0.003	0.093	0.005	0.098	0.026	0.005	0.031	288.264
Segment 4b	Grading	2024	On-site	SCAQMD	0.126	0.600	4.856	0.010	0.154	0.017	0.170	0.038	0.017	0.054	903.235
Segment 4b	Grading	2024	Off-site	SCAQMD	0.029	1.146	0.397	0.006	0.185	0.011	0.196	0.051	0.010	0.061	566.779
Segment 4b	Grading	2025	On-site	SCAQMD	0.011	0.054	0.433	0.001	0.111	0.001	0.112	0.014	0.001	0.016	80.509
Segment 4b	Grading	2025	Off-site	SCAQMD	0.002	0.101	0.035	0.000	0.017	0.001	0.017	0.005	0.001	0.005	49.475
Segment 4b	Building Construction	2023	On-site	SCAQMD	0.063	0.302	2.789	0.005	0.000	0.008	0.008	0.000	0.008	0.008	476.954
Segment 4b	Building Construction	2023	Off-site	SCAQMD	0.003	0.054	0.038	0.000	0.021	0.001	0.022	0.006	0.001	0.006	39.145
Segment 4b	Building Construction	2024	On-site	SCAQMD	0.063	0.302	2.789	0.005	0.000	0.008	0.008	0.000	0.008	0.008	477.044
Segment 4b	Building Construction	2024	Off-site	SCAQMD	0.003	0.054	0.036	0.000	0.021	0.001	0.022	0.006	0.001	0.006	38.554
Segment 4b	Paving	2023	On-site	SCAQMD	0.014	0.061	0.657	0.001	0.000	0.002	0.002	0.000	0.002	0.002	103.087
Segment 4b	Paving	2023	Off-site	SCAQMD	0.001	0.025	0.011	0.000	0.007	0.000	0.008	0.002	0.000	0.002	16.378
Segment 4b	Paving	2024	On-site	SCAQMD	0.003	0.011	0.117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.389
Segment 4b	Paving	2024	Off-site	SCAQMD	0.000	0.004	0.002	0.000	0.001	0.000	0.001	0.000	0.000	0.000	2.879
Segment 5	Demolition	2022	On-site	SCAQMD	0.064	0.275	2.819	0.005	0.216	0.008	0.224	0.033	0.008	0.041	478.295
Segment 5	Demolition	2022	Off-site	SCAQMD	0.007	0.186	0.080	0.001	0.026	0.002	0.028	0.007	0.002	0.009	76.768
Segment 5	Site Preparation	2022	On-site	SCAQMD	0.028	0.120	1.067	0.002	0.000	0.004	0.004	0.000	0.004	0.004	200.576
Segment 5	Site Preparation	2022	Off-site	SCAQMD	0.002	0.022	0.021	0.000	0.009	0.000	0.009	0.003	0.000	0.003	14.568
Segment 5	Building Construction	2022	On-site	SCAQMD	0.104	0.501	4.495	0.009	0.000	0.014	0.014	0.000	0.014	0.014	776.912
Segment 5	Building Construction	2022	Off-site	SCAQMD	0.011	0.153	0.101	0.001	0.048	0.002	0.050	0.013	0.002	0.015	89.491
Segment 5	Building Construction	2023	On-site	SCAQMD	0.246	1.184	10.624	0.021	0.000	0.032	0.032	0.000	0.032	0.032	1837.058

Table B-3. Project Construction Emissions by Construction Segment, Construction Phase, and Air District
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Year	Source	Air District	Mitigated Project Construction Emissions ^{1,2}										GHG ³ (MT CO ₂ e/yr)
					ROG (ton/yr)	NO _x (ton/yr)	CO (ton/yr)	SO ₂ (ton/yr)	Fugitive PM ₁₀ (ton/yr)	Exhaust PM ₁₀ (ton/yr)	Total PM ₁₀ (ton/year)	Fugitive PM _{2.5} (ton/year)	Exhaust PM _{2.5} (ton/yr)	Total PM _{2.5} (ton/yr)	
Segment 5	Building Construction	2023	Off-site	SCAQMD	0.019	0.275	0.209	0.002	0.113	0.003	0.116	0.032	0.003	0.034	203.524
Segment 5	Building Construction	2024	On-site	SCAQMD	0.083	0.399	3.575	0.007	0.000	0.011	0.011	0.000	0.011	0.011	618.358
Segment 5	Building Construction	2024	Off-site	SCAQMD	0.006	0.093	0.066	0.001	0.038	0.001	0.039	0.011	0.001	0.012	67.448
Segment 5	Paving	2022	On-site	SCAQMD	0.029	0.125	1.385	0.002	0.000	0.004	0.004	0.000	0.004	0.004	211.513
Segment 5	Paving	2022	Off-site	SCAQMD	0.005	0.089	0.046	0.000	0.024	0.001	0.025	0.007	0.001	0.008	48.998
Segment 5	Paving	2023	On-site	SCAQMD	0.017	0.074	0.818	0.001	0.000	0.002	0.002	0.000	0.002	0.002	125.040
Segment 5	Paving	2023	Off-site	SCAQMD	0.002	0.040	0.024	0.000	0.014	0.000	0.014	0.004	0.000	0.004	27.835
Segment 5	Grading	2023	On-site	SCAQMD	0.108	0.538	4.218	0.009	0.252	0.014	0.266	0.082	0.014	0.096	767.290
Segment 5	Grading	2023	Off-site	SCAQMD	0.007	0.252	0.090	0.001	0.055	0.002	0.058	0.016	0.002	0.018	145.478
Segment 5	Grading	2024	On-site	SCAQMD	0.170	0.846	6.638	0.014	0.323	0.022	0.345	0.121	0.022	0.143	1207.804
Segment 5	Grading	2024	Off-site	SCAQMD	0.011	0.399	0.138	0.002	0.087	0.004	0.090	0.024	0.004	0.028	225.462
Segment 6	Demolition	2022	On-site	SCAQMD	0.090	0.391	3.866	0.008	0.917	0.012	0.929	0.139	0.012	0.151	671.338
Segment 6	Demolition	2022	Off-site	SCAQMD	0.026	0.784	0.275	0.003	0.088	0.007	0.095	0.024	0.007	0.031	308.419
Segment 6	Site Preparation	2022	On-site	SCAQMD	0.028	0.120	1.067	0.002	0.000	0.004	0.004	0.000	0.004	0.004	200.576
Segment 6	Site Preparation	2022	Off-site	SCAQMD	0.002	0.022	0.021	0.000	0.009	0.000	0.009	0.003	0.000	0.003	14.568
Segment 6	Grading	2022	On-site	SCAQMD	0.141	0.691	5.463	0.011	0.284	0.019	0.303	0.094	0.019	0.112	1002.845
Segment 6	Grading	2022	Off-site	SCAQMD	0.014	0.385	0.122	0.002	0.065	0.005	0.070	0.018	0.004	0.023	180.011
Segment 6	Grading	2023	On-site	SCAQMD	0.209	1.026	8.116	0.017	0.353	0.028	0.381	0.132	0.028	0.159	1490.761
Segment 6	Grading	2023	Off-site	SCAQMD	0.013	0.446	0.159	0.003	0.096	0.004	0.101	0.027	0.004	0.031	256.418
Segment 6	Grading	2024	On-site	SCAQMD	0.001	0.003	0.026	0.000	0.143	0.000	0.143	0.016	0.000	0.016	4.779
Segment 6	Grading	2024	Off-site	SCAQMD	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.809
Segment 6	Building Construction	2022	On-site	SCAQMD	0.163	0.785	7.029	0.014	0.000	0.021	0.021	0.000	0.021	0.021	1215.153
Segment 6	Building Construction	2022	Off-site	SCAQMD	0.014	0.214	0.130	0.001	0.063	0.003	0.066	0.018	0.003	0.021	122.401
Segment 6	Building Construction	2023	On-site	SCAQMD	0.202	0.976	8.736	0.017	0.000	0.027	0.027	0.000	0.027	0.027	1510.866
Segment 6	Building Construction	2023	Off-site	SCAQMD	0.013	0.202	0.141	0.001	0.079	0.002	0.081	0.022	0.002	0.024	146.330
Segment 6	Paving	2022	On-site	SCAQMD	0.042	0.184	1.976	0.004	0.000	0.006	0.006	0.000	0.006	0.006	309.917
Segment 6	Paving	2022	Off-site	SCAQMD	0.006	0.140	0.049	0.001	0.029	0.002	0.031	0.008	0.002	0.010	71.381
Segment 6	Paving	2023	On-site	SCAQMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 6	Paving	2023	Off-site	SCAQMD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 7	Demolition	2022	On-site	SCAQMD	0.122	0.527	5.437	0.011	0.426	0.016	0.442	0.065	0.016	0.081	918.486
Segment 7	Demolition	2022	Off-site	SCAQMD	0.015	0.367	0.159	0.001	0.051	0.003	0.055	0.014	0.003	0.017	151.664
Segment 7	Site Preparation	2022	On-site	SCAQMD	0.055	0.238	2.113	0.004	0.000	0.007	0.007	0.000	0.007	0.007	397.368
Segment 7	Site Preparation	2022	Off-site	SCAQMD	0.004	0.044	0.042	0.000	0.018	0.001	0.019	0.005	0.001	0.006	28.860
Segment 7	Building Construction	2022	On-site	SCAQMD	0.183	0.883	7.960	0.016	0.000	0.024	0.024	0.000	0.024	0.024	1366.499
Segment 7	Building Construction	2022	Off-site	SCAQMD	0.024	0.324	0.228	0.002	0.106	0.005	0.111	0.029	0.004	0.034	192.431
Segment 7	Building Construction	2023	On-site	SCAQMD	0.242	1.168	10.523	0.021	0.000	0.032	0.032	0.000	0.032	0.032	1807.281
Segment 7	Building Construction	2023	Off-site	SCAQMD	0.024	0.325	0.265	0.002	0.140	0.003	0.144	0.039	0.003	0.042	244.841
Segment 7	Building Construction	2024	On-site	SCAQMD	0.244	1.175	10.590	0.021	0.000	0.032	0.032	0.000	0.032	0.032	1819.217
Segment 7	Building Construction	2024	Off-site	SCAQMD	0.023	0.329	0.251	0.002	0.141	0.003	0.144	0.039	0.003	0.042	242.614

Table B-3. Project Construction Emissions by Construction Segment, Construction Phase, and Air District
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Construction Segment #	Construction Phase Name	Year	Source	Air District	Mitigated Project Construction Emissions ^{1,2}										
					ROG (ton/yr)	NO _x (ton/yr)	CO (ton/yr)	SO ₂ (ton/yr)	Fugitive PM ₁₀ (ton/yr)	Exhaust PM ₁₀ (ton/yr)	Total PM ₁₀ (ton/year)	Fugitive PM _{2.5} (ton/year)	Exhaust PM _{2.5} (ton/yr)	Total PM _{2.5} (ton/yr)	GHG ³ (MT CO ₂ e/yr)
Segment 7	Building Construction	2025	On-site	SCAQMD	0.001	0.004	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.792
Segment 7	Building Construction	2025	Off-site	SCAQMD	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.757
Segment 7	Grading	2023	On-site	SCAQMD	0.157	0.748	6.001	0.013	0.331	0.021	0.351	0.118	0.021	0.139	1119.294
Segment 7	Grading	2023	Off-site	SCAQMD	0.024	0.892	0.322	0.004	0.155	0.008	0.164	0.043	0.008	0.051	462.339
Segment 7	Grading	2024	On-site	SCAQMD	0.202	0.965	7.739	0.016	0.385	0.027	0.411	0.148	0.027	0.174	1443.819
Segment 7	Grading	2024	Off-site	SCAQMD	0.030	1.155	0.411	0.006	0.200	0.011	0.211	0.056	0.010	0.066	586.307
Segment 7	Paving	2023	On-site	SCAQMD	0.006	0.027	0.301	0.001	0.000	0.001	0.001	0.000	0.001	0.001	44.972
Segment 7	Paving	2023	Off-site	SCAQMD	0.000	0.009	0.004	0.000	0.003	0.000	0.003	0.001	0.000	0.001	6.099
Segment 7	Paving	2024	On-site	SCAQMD	0.013	0.054	0.613	0.001	0.000	0.002	0.002	0.000	0.002	0.002	91.695
Segment 7	Paving	2024	Off-site	SCAQMD	0.001	0.019	0.008	0.000	0.006	0.000	0.006	0.002	0.000	0.002	12.254
Segment 7	Architectural Coating ⁴	2023	On-site	SCAQMD	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Segment 7	Architectural Coating ⁴	2024	On-site	SCAQMD	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes:

¹Mitigated construction emissions are obtained from CalEEMod® outputs in Appendix A.

²Segment 4 was proportioned into the two air jurisdictions based on the length of the rail alignment in each jurisdiction, with 55.5% in MDAQMD (Segment 4a) and 44.5% in SCAQMD (Segment 4b).

³GHG emissions use the Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials of 1, 25, and 298 for carbon dioxide, methane, and nitrous oxide, respectively.

⁴Emissions for asphalt paving of parking lots and architectural coating use for parking areas are obtained from Table B-1 and Table B-2 respectively.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

CO - carbon monoxide

CO₂e - carbon dioxide equivalent

MDAQMD - Mojave Desert Air Quality Management District

NO_x - oxides of nitrogen (NO + NO₂)

PM₁₀ - particulate matter less than 10 microns in diameter

PM_{2.5} - particulate matter less than 2.5 microns in diameter

ROG - reactive organic compounds

SCAQMD - South Coast Air Quality Management District

SO₂ - sulfur dioxide

tpy - tons per year

Table B-4. Greenhouse Gas Emissions for Project Construction
Brightline West Cajon Pass High-Speed Rail Project
San Bernardino County, California

Air District	Source ¹	Maximum Annual Mitigated Emission Estimates ² (MT CO ₂ e/year)					
		2022	2023	2024	2025	Total	Amortized Total ³
SCAQMD	On-site	7,749	10,182	6,587	86	24,604	820
	Off-site	1,300	1,905	1,744	50	4,998	167
	Total	9,049	12,087	8,331	137	29,603	987
MDAQMD	On-site	4,030	10,650	10,077	1,641	26,397	880
	Off-site	457	2,209	2,458	253	5,377	179
	Total	4,487	12,858	12,535	1,894	31,774	1,059

Notes:

¹ On-site emissions are from off-road construction equipment for the Build Alternative shown in Figure 3-1. Off-site emissions are from worker, vendor, and hauling trips.

² GHG emissions use the Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials of 1, 25, and 298 for carbon dioxide, methane, and nitrous oxide, respectively.

³ Construction emissions are amortized over a 30-year project lifetime.

Abbreviations:

CalEEMod[®] - California Emissions Estimator Model

CO₂e - carbon dioxide equivalents

MDAQMD - Mojave Desert Air Quality Management District

MT - metric tons

SCAQMD - South Coast Air Quality Management District

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Appendix C

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 1. Highway 395 / Joshua Street

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Victorville-Park Avenue 14306 PARK AVE., VICTORVILLE, CA
 Background 1-hour CO Concentration (ppm): 1.6
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 1. Highway 395 / Joshua Street
 Analysis Condition: 2025 Full Build

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Highway 395	At Grade	6	5
East-West Roadway: Joshua Street	At Grade	4	5

A.M. Peak Hour Traffic Volumes

N	9	960	142	E
W	<	v	>	
13 ^				95
16 >				16
1 v				148
	<	^	>	
	3	433	47	S

P.M. Peak Hour Traffic Volumes

N	22	552	65	E
W	<	v	>	
43 ^				149
125 >				24
20 v				41
	<	^	>	
	33	1,848	110	S

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,652
 E-W Road: 464

N-S Road: 2,679
 E-W Road: 514

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic			Emission					
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	1,652	1.91	0.30	0.19	0.15	0.11
East-West Road	3.3	2.6	2.2	1.7	464	1.91	0.03	0.02	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,679	1.91	0.49	0.31	0.25	0.18
East-West Road	3.3	2.6	2.2	1.7	514	1.91	0.03	0.03	0.02	0.02

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.9	2.1	1.5
25 Feet from Roadway Edge	1.8	1.9	1.3
50 Feet from Roadway Edge	1.8	1.9	1.3
100 Feet from Roadway Edge	1.7	1.8	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 7. Fourth Street / I-15 Southbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 7. Fourth Street / I-15 Southbound Ramps
Analysis Condition: 2025 Full Build

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	I-15 Southbound Ramps	At Grade	6	5
East-West Roadway:	Fourth Street	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	353	178	143	E
W	<	v	>	E
229 ^				177
241 >				968
72 v				164
S	79	63	43	

P.M. Peak Hour Traffic Volumes

N	357	154	80	E
W	<	v	>	E
698 ^				233
1,290 >				861
91 v				104
S	121	152	22	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,143
 E-W Road: 1,942

N-S Road: 1,674
 E-W Road: 3,418

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic			Emission					
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,143	1.56	0.05	0.04	0.04	0.03
East-West Road	8.5	5.7	4.6	3.4	1,942	1.56	0.26	0.17	0.14	0.10
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,674	1.56	0.07	0.06	0.05	0.04
East-West Road	8.5	5.7	4.6	3.4	3,418	1.56	0.45	0.30	0.25	0.18

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.8	2.0	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.7	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 8. Fourth Street / I-15 Northbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 8. Fourth Street / I-15 Northbound Ramps
Analysis Condition: 2025 Full Build

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	I-15 Northbound Ramps	At Grade	6	5
East-West Roadway:	Fourth Street	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	942	55	324	E
W	<	v	>	
147 ^				62
254 >				283
28 v				15
	<	^	>	
	53	23	34	
S				

P.M. Peak Hour Traffic Volumes

N	653	63	173	E
W	<	v	>	
755 ^				151
569 >				454
68 v				34
	<	^	>	
	91	74	58	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,553
 E-W Road: 1,707

N-S Road: 1,869
 E-W Road: 2,590

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic Emission			Factors ²		E.O.R.			
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume		E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,553	1.56	0.07	0.06	0.05	0.04
East-West Road	8.5	5.7	4.6	3.4	1,707	1.56	0.23	0.15	0.12	0.09
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,869	1.56	0.08	0.07	0.06	0.05
East-West Road	8.5	5.7	4.6	3.4	2,590	1.56	0.34	0.23	0.19	0.14

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.8	1.9	1.4
25 Feet from Roadway Edge	1.7	1.8	1.3
50 Feet from Roadway Edge	1.7	1.7	1.3
100 Feet from Roadway Edge	1.6	1.7	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 11. Milliken Avenue / Foothill Boulevard

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 11. Milliken Avenue / Foothill Boulevard
Analysis Condition: 2025 Full Build

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Milliken Avenue	At Grade	8	5
East-West Roadway: Foothill Boulevard	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	139	375	123	E
W	<	v	>	E
40 ^				82
364 >				670
61 v				129
S	83	176	94	

P.M. Peak Hour Traffic Volumes

N	196	486	221	E
W	<	v	>	E
227 ^				97
1,604 >				1,408
129 v				228
S	327	784	205	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 935
 E-W Road: 1,462

N-S Road: 2,159
 E-W Road: 3,891

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic			Emission					
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	935	1.56	0.04	0.03	0.03	0.02
East-West Road	8.5	5.7	4.6	3.4	1,462	1.56	0.19	0.13	0.10	0.08
P.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	2,159	1.56	0.09	0.07	0.06	0.05
East-West Road	8.5	5.7	4.6	3.4	3,891	1.56	0.52	0.35	0.28	0.21

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.1	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.8	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 12. Milliken Avenue / Fourth Street

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 12. Milliken Avenue / Fourth Street
 Analysis Condition: 2025 Full Build

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	Milliken Avenue	At Grade	8	5
East-West Roadway:	I-10 Westbound Ramps	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	78	598	92	E
W	<	v	>	E
80 ^				85
289 >				385
117 v				229
S	78	613	83	

P.M. Peak Hour Traffic Volumes

N	160	909	202	E
W	<	v	>	E
175 ^				191
1,372 >				1,239
177 v				199
S	212	1,220	189	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,718
 E-W Road: 1,163

N-S Road: 2,906
 E-W Road: 3,392

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic			Emission					
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	1,718	1.56	0.23	0.15	0.12	0.09
East-West Road	2.6	2.2	1.9	1.6	1,163	1.56	0.05	0.04	0.03	0.03
P.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	2,906	1.56	0.12	0.10	0.09	0.07
East-West Road	8.5	5.7	4.6	3.4	3,392	1.56	0.45	0.30	0.24	0.18

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.8	2.1	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.7	1.8	1.3
100 Feet from Roadway Edge	1.6	1.8	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 15. Milliken Avenue / I-10 Westbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 15. Milliken Avenue / I-10 Westbound Ramps
 Analysis Condition: 2025 Full Build

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	Milliken Avenue	At Grade	8	5
East-West Roadway:	I-10 Westbound Ramps	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	217	364	80	E
W	<	v	>	
51 ^				173
34 >				47
24 v				215
	<	^	>	
	95	411	161	
S				

P.M. Peak Hour Traffic Volumes

N	497	801	248	E
W	<	v	>	
206 ^				178
210 >				173
192 v				557
	<	^	>	
	309	1,208	243	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,296
 E-W Road: 710

N-S Road: 3,310
 E-W Road: 1,609

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic Emission			Factors ²		E.O.R.			
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume		E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	1,296	1.56	0.17	0.12	0.09	0.07
East-West Road	2.6	2.2	1.9	1.6	710	1.56	0.03	0.02	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	3,310	1.56	0.44	0.29	0.24	0.18
East-West Road	2.6	2.2	1.9	1.6	1,609	1.56	0.07	0.06	0.05	0.04

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.0	1.5
25 Feet from Roadway Edge	1.6	1.8	1.3
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 16. Milliken Avenue / I-10 Eastbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2025

Roadway Data

Intersection: 16. Milliken Avenue / I-10 Eastbound Ramps
Analysis Condition: 2025 Full Build

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	Milliken Avenue	At Grade	8	5
East-West Roadway:	I-10 Eastbound Ramps	At Grade	6	5

A.M. Peak Hour Traffic Volumes

N	184	420	0
W	<	v	>
361 ^			0
0 >			<
229 v			0
S	179	307	0

P.M. Peak Hour Traffic Volumes

N	771	780	0
W	<	v	>
763 ^			0
0 >			<
198 v			0
S	490	998	0

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,272
 E-W Road: 953

N-S Road: 3,312
 E-W Road: 2,222

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	1,272	1.56	0.17	0.11	0.09	0.07
East-West Road	2.8	2.3	2.0	1.7	953	1.56	0.04	0.03	0.03	0.03
P.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	3,312	1.56	0.44	0.29	0.24	0.18
East-West Road	2.8	2.3	2.0	1.7	2,222	1.56	0.10	0.08	0.07	0.06

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.0	1.5
25 Feet from Roadway Edge	1.6	1.9	1.4
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 1. Highway 395 / Joshua Street

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Victorville-Park Avenue 14306 PARK AVE., VICTORVILLE, CA
 Background 1-hour CO Concentration (ppm): 1.6
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 1. Highway 395 / Joshua Street
 Analysis Condition: 2045 Full Build with Mitigation

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
At Grade	6	5	5
At Grade	4	5	5

A.M. Peak Hour Traffic Volumes

N	528	1,454	252	E
W	<	v	>	
70	^		^	149
13	>		<	135
1	v		v	39
	<	^	>	
	13	437	7	S

P.M. Peak Hour Traffic Volumes

N	100	515	62	E
W	<	v	>	
358	^		^	431
519	>		<	158
203	v		v	109
	<	^	>	
	23	2,047	13	S

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 2,890
 E-W Road: 760

N-S Road: 3,513
 E-W Road: 1,361

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic Emission			Factors ²		E.O.R.			
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume		E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,890	1.26	0.34	0.22	0.18	0.13
East-West Road	3.3	2.6	2.2	1.7	760	1.26	0.03	0.02	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,513	1.26	0.42	0.27	0.22	0.15
East-West Road	3.3	2.6	2.2	1.7	1,361	1.26	0.06	0.04	0.04	0.03

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.0	2.1	1.4
25 Feet from Roadway Edge	1.8	1.9	1.3
50 Feet from Roadway Edge	1.8	1.9	1.3
100 Feet from Roadway Edge	1.7	1.8	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 6. Foothill Boulevard / I-15 Northbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 6. Foothill Boulevard / I-15 Northbound Ramps
Analysis Condition: 2045 Full Build with Mitigation

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	I-15 Northbound Ramps	At Grade	4	5
East-West Roadway:	Foothill Boulevard	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	0	0	0	E
W	0	<	v	>
	0	^		200
	1,541	>		<
	163	v		0
		<	^	>
		343	0	182
S				

P.M. Peak Hour Traffic Volumes

N	0	0	0	E
W	0	<	v	>
	0	^		869
	2,486	>		<
	367	v		0
		<	^	>
		1,058	0	627
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 688
 E-W Road: 3,525

N-S Road: 2,052
 E-W Road: 5,424

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	688	1.07	0.02	0.02	0.02	0.01
East-West Road	8.5	5.7	4.6	3.4	3,525	1.07	0.32	0.21	0.17	0.13
P.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	2,052	1.07	0.07	0.06	0.05	0.04
East-West Road	8.5	5.7	4.6	3.4	5,424	1.07	0.49	0.33	0.27	0.20

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.8	2.1	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.7	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 7. Fourth Street / I-15 Southbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 7. Fourth Street / I-15 Southbound Ramps
Analysis Condition: 2045 Full Build with Mitigation

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	I-15 Southbound Ramps	At Grade	6	5
East-West Roadway:	Fourth Street	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	367	153	151	E
W	<	v	>	
336 ^				173
381 >				1,030
56 v				88
	<	^	>	
	111	97	63	S

P.M. Peak Hour Traffic Volumes

N	447	160	115	E
W	<	v	>	
566 ^				211
1,691 >				1,090
76 v				99
	<	^	>	
	132	138	27	S

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,277
 E-W Road: 2,281

N-S Road: 1,637
 E-W Road: 4,002

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic			Emission					
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,277	1.07	0.04	0.03	0.03	0.02
East-West Road	8.5	5.7	4.6	3.4	2,281	1.07	0.21	0.14	0.11	0.08
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,637	1.07	0.05	0.04	0.04	0.03
East-West Road	8.5	5.7	4.6	3.4	4,002	1.07	0.36	0.24	0.20	0.15

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	1.9	1.4
25 Feet from Roadway Edge	1.7	1.8	1.3
50 Feet from Roadway Edge	1.6	1.7	1.3
100 Feet from Roadway Edge	1.6	1.7	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 8. Fourth Street / I-15 Northbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 8. Fourth Street / I-15 Northbound Ramps
Analysis Condition: 2045 Full Build with Mitigation

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	I-15 Northbound Ramps	At Grade	6	5
East-West Roadway:	Fourth Street	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	747	37	272	E
W	<	v	>	
132 ^				54
425 >				413
38 v				20
	<	^	>	
	130	41	89	
S				

P.M. Peak Hour Traffic Volumes

N	751	46	174	E
W	<	v	>	
821 ^				78
920 >				529
92 v				22
	<	^	>	
	122	79	78	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,283
 E-W Road: 1,885

N-S Road: 1,949
 E-W Road: 3,235

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Traffic Emission			Factors ²		E.O.R.			
	E.O.R.	25 Feet	50 Feet	100 Feet	Volume		E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,283	1.07	0.04	0.03	0.03	0.02
East-West Road	8.5	5.7	4.6	3.4	1,885	1.07	0.17	0.11	0.09	0.07
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,949	1.07	0.06	0.05	0.04	0.04
East-West Road	8.5	5.7	4.6	3.4	3,235	1.07	0.29	0.20	0.16	0.12

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	1.9	1.3
25 Feet from Roadway Edge	1.6	1.7	1.3
50 Feet from Roadway Edge	1.6	1.7	1.2
100 Feet from Roadway Edge	1.6	1.7	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 11. Milliken Avenue / Foothill Boulevard

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 11. Milliken Avenue / Foothill Boulevard
Analysis Condition: 2045 Full Build with Mitigation

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Milliken Avenue	At Grade	8	5
East-West Roadway: Foothill Boulevard	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	134	479	184	E
W	<	v	>	E
54 ^				123
560 >				785
79 v				191
S	71	193	129	S

P.M. Peak Hour Traffic Volumes

N	195	532	318	E
W	<	v	>	E
447 ^				315
1,742 >				1,788
93 v				283
S	56	301	88	S

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,167
 E-W Road: 1,972

N-S Road: 2,108
 E-W Road: 4,534

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

	A ₁	A ₂	A ₃	A ₄	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	1,167	1.07	0.03	0.03	0.02	0.02
East-West Road	8.5	5.7	4.6	3.4	1,972	1.07	0.18	0.12	0.10	0.07
P.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	2,108	1.07	0.06	0.05	0.04	0.04
East-West Road	8.5	5.7	4.6	3.4	4,534	1.07	0.41	0.28	0.22	0.16

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.0	1.4
25 Feet from Roadway Edge	1.6	1.8	1.3
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 12. Milliken Avenue / Fourth Street

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 12. Milliken Avenue / Fourth Street
 Analysis Condition: 2045 Full Build with Mitigation

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Milliken Avenue	At Grade	8	5
East-West Roadway: I-10 Westbound Ramps	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	94	1,074	116	E
W	<	v	>	E
215 ^				168
298 >				358
213 v				300
S	19	327	20	

P.M. Peak Hour Traffic Volumes

N	70	1,068	233	E
W	<	v	>	E
490 ^				471
1,610 >				1,645
563 v				140
S	694	1,959	214	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,994
 E-W Road: 1,260

N-S Road: 4,638
 E-W Road: 5,072

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	1,994	1.07	0.18	0.12	0.10	0.07
East-West Road	2.6	2.2	1.9	1.6	1,260	1.07	0.04	0.03	0.03	0.02
P.M. Peak Traffic Hour										
North-South Road	2.6	2.2	1.9	1.6	4,638	1.07	0.13	0.11	0.09	0.08
East-West Road	8.5	5.7	4.6	3.4	5,072	1.07	0.46	0.31	0.25	0.18

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.1	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.8	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 13. Milliken Avenue / Azuza Court

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 13. Milliken Avenue / Azuza Court
 Analysis Condition: 2045 Full Build with Mitigation

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Milliken Avenue	At Grade	6	5
East-West Roadway: Azuza Court	At Grade	4	5

A.M. Peak Hour Traffic Volumes

N	62	775	0	E
W	<	v	>	0
0	^		^	0
0	>		<	0
127	v		v	0
S	43	722	0	

P.M. Peak Hour Traffic Volumes

N	168	940	0	E
W	<	v	>	0
0	^		^	0
0	>		<	0
175	v		v	0
S	223	2,037	0	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,667
 E-W Road: 232

N-S Road: 3,375
 E-W Road: 566

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

	A ₁	A ₂	A ₃	A ₄	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	1,667	1.07	0.17	0.11	0.09	0.06
East-West Road	3.3	2.6	2.2	1.7	232	1.07	0.01	0.01	0.01	0.00
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,375	1.07	0.34	0.22	0.18	0.13
East-West Road	3.3	2.6	2.2	1.7	566	1.07	0.02	0.02	0.01	0.01

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	1.9	1.4
25 Feet from Roadway Edge	1.6	1.7	1.3
50 Feet from Roadway Edge	1.6	1.7	1.2
100 Feet from Roadway Edge	1.6	1.6	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 13. Milliken Avenue / 7th Street

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 13. Milliken Avenue / 7th Street
Analysis Condition: 2045 Full Build with Mitigation

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Milliken Avenue	At Grade	8	5
East-West Roadway: 7th Street	At Grade	4	5

A.M. Peak Hour Traffic Volumes

N	93	780	30	E
W	<	v	>	E
344 ^				16
3 >				4
145 v				2
S	79	444	1	S

P.M. Peak Hour Traffic Volumes

N	204	897	15	E
W	<	v	>	E
257 ^				21
0 >				0
200 v				16
S	414	1,983	11	S

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,707
 E-W Road: 668

N-S Road: 3,521
 E-W Road: 1,075

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Reference CO Concentrations	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	1,707	1.07	0.16	0.10	0.08	0.06
East-West Road	3.3	2.6	2.2	1.7	668	1.07	0.02	0.02	0.02	0.01
P.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	3,521	1.07	0.32	0.21	0.17	0.13
East-West Road	3.3	2.6	2.2	1.7	1,075	1.07	0.04	0.03	0.03	0.02

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	1.9	1.4
25 Feet from Roadway Edge	1.6	1.7	1.3
50 Feet from Roadway Edge	1.6	1.7	1.2
100 Feet from Roadway Edge	1.6	1.6	1.2

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Brightline West High Speed Rail
Intersection: 15. Milliken Avenue / I-10 Westbound Ramps

Background Information

Nearest Air Monitoring Station measuring CO: CO - Active: Ontario Near Road (Etiwanda) NW Corner Interstate 10 & Etiwanda Ave
 Background 1-hour CO Concentration (ppm): 1.5
 Background 8-hour CO Concentration (ppm): 1.1
 Persistence Factor: 0.7
 Analysis Year: 2045

Roadway Data

Intersection: 15. Milliken Avenue / I-10 Westbound Ramps
Analysis Condition: 2045 Full Build with Mitigation

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	Milliken Avenue	At Grade	8	5
East-West Roadway:	I-10 Westbound Ramps	At Grade	8	5

A.M. Peak Hour Traffic Volumes

N	305	935	92	E
W	<	v	>	E
74 ^				238
39 >				39
37 v				450
S	65	464	92	

P.M. Peak Hour Traffic Volumes

N	692	1,407	455	E
W	<	v	>	E
657 ^				326
264 >				478
96 v				576
S	60	2,090	134	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 2,108
 E-W Road: 950

N-S Road: 5,627
 E-W Road: 2,247

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	2,108	1.07	0.19	0.13	0.10	0.08
East-West Road	2.6	2.2	1.9	1.6	950	1.07	0.03	0.02	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	5,627	1.07	0.51	0.34	0.28	0.20
East-West Road	2.6	2.2	1.9	1.6	2,247	1.07	0.06	0.05	0.05	0.04

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).

² Emission factors from EMFAC2017.

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration¹

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration¹

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	1.7	2.1	1.5
25 Feet from Roadway Edge	1.7	1.9	1.4
50 Feet from Roadway Edge	1.6	1.8	1.3
100 Feet from Roadway Edge	1.6	1.7	1.3

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1999).