Appendix G
Greenhouse Gas Emissions

ESA

Appendix G.1

GHG Modeling Assumptions and Calculations

ESA

Morningside HS
Air Quality and Greenhouse Gas Assessment
Construction Assumptions

Last Updated 5/24/2022

Project Land Uses

Land Use Type	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Asphalt (Total)	Parking						
Parking Lots	Parking	Parking Lot	43.244	ksf	43,244		
Fire Lanes	Parking	Other Asphalt Surface	25.777	ksf	25,777		
Hardscape (non-asphalt) (Total)	Parking	Other Non-Asphalt Surface	176.751	ksf	176,751		
Sidewalks			66.204	ksf	66,204.0		
Canopies			20.145	ksf	20,145		
Tennis Courts (include all existing for demo)			46.390	ksf	46,390		
Basketball Courts (include all existing for demo)			34.337	ksf	34,337		
Stadium Seating			9.675	ksf	9,675		
Recreational (Total)	Recreational	City Park	340.764	ksf	340,764		
Baseball Field			105.264	ksf	105,264		
Softball Field			53.615	ksf	53,615		
Track&Field/Shotput/Discus			181.885	ksf	181,885		
Softscape (Total)	Recreational	City Park	660.182	ksf	660,182		
Landscaping			660.182	ksf	660,182		
Buildings	Recreational	Health Club	12.152	ksf	12,152		
NEW BUILDING SU	Industrial	Warehouse No Rail	0.379	ksf	379		
NEW BUILDING W	Retail	Convenience Market (24 Hour)	0.737	ksf	737		
NEW BUILDING Y	Recreational	Health Club	3.251	ksf	3,251		
NEW BUILDING Z	Recreational	Health Club	1.864	ksf	1,864		
BUILDING L (demo and replace)	Educational	High School	5.921	ksf	5,921		
Woodworth + Leased Area	Recreational	City Park	1,001.880	ksf	1,001,880	23.00	Leased area and Woodworth are only included in construction modeling to account for demolition and site work associated with these areas, not included in operations
Buildings Total							
NEW BUILDING SU	Industrial	Warehouse No Rail	0.379	ksf	379	0.25	
NEW BUILDING W	Retail	Strip Mall	0.737	ksf	737	0.25	
NEW BUILDING Y + Z	Recreational	Health Club	5.115	ksf	5,115.00	0.88	
BUILDING L (demo and replace)	Educational	High School	5.921	ksf	5,921	1.00	
Parking Lots	Parking	Parking Lot	43.244	ksf	43,244	0.99	
Fire Lanes	Parking	Other Asphalt Surface	25.777	ksf	25,777	0.59	
Hardscape (non-asphalt) (Total)	Parking	Other Non-Asphalt Surface	176.751	ksf	176,751	4.06	
Recreational (Total)	Recreational	City Park	45.980	Acres	2,002,826	45.98	
					Total	54.00	

Construction Phase	Start Date	End Date	No. Work Days [1]	Maximum Number of Daily Workers[2]	Worker One Way Trips/Max Day [3]	Vendor Trips/Max Day (In/Out)	Total Haul or Concrete Truck Trips (In/Out)	Max Daily Haul Trucks/Day	Max Daily Haul Trips/Day (In/Out)	Notes
										Schedule based on 2 year duration provided by client
Demolition	6/1/2023	8/16/2023	55	9	18		17,928	163	326	Phase days based on CalEEMod default phase percentage of CalEEmod total work days
Site Prep	8/17/2023	9/7/2023	16	10	20					Phase days based on CalEEMod default phase percentage of CalEEmod total work days
Grading/Excavation	9/8/2023	10/31/2023	38	12	24		6,140	81	162	Phase days based on CalEEMod default phase percentage of CalEEmod total work days
Building Modernization + Campus Improvements	11/1/2023	4/22/2025	385	475	950	372				Phase days based on CalEEMod default phase percentage of CalEEmod total work days
	11/1/2023	12/31/2023	43							
	1/1/2024	12/31/2024	262							
	1/1/2025	4/22/2025	80							
Pavings	4/23/2025	5/31/2025	28	8	16					Phase days based on CalEEMod default phase percentage of CalEEmod total work days
Architectural Coatings	4/23/2025	5/31/2025	28	95	190					Phase days based on CalEEMod default phase percentage of CalEEmod total work days

Notes:

Source: Client Provided Demolition and Excavation Quantities

Demolition Quantities

Total Debris Weight (tons)	66,553
Total Demolition Debris (CY)	**89,632**
Haul Truck Capacity (CY)	10
Total Haul Trucks Required	8,964
Total Haul Truck Trips (In/Out)	**17,928**
Total Haul Truck Trips (In/Out) per day	326

Excavation Quantities

Parameters	Amount	
Excavation Volume (Export) (CY)	**30,700**	From Data Needs
Haul Truck Capacity (CY)	10	Assumption
Total Haul Trucks Required	3,070	
Total Haul Truck Trips (In/Out)	**6,140**	
Total Haul Truck Trips (In/Out) per day	162	

Asphalt Paving Quantities

Parameters	Amount	
Area of Paving (acres)	3.40	From Data Needs

Morningside HS
Air Quality and Greenhouse Gas Assessment
Operational Assumptions

Project Land Uses

Land Use Type	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Asphalt (Total)	Parking						
Parking Lots	Parking	Parking Lot	43.244	ksf	43,244		
Fire Lanes	Parking	Other Asphalt Surface	25.777	ksf	25,777		
Hardscape (non-asphalt) (Total)	Parking	Other Non-Asphalt Surface	176.751	ksf	176,751		
Sidewalks			66.204	ksf	66,204.0		
Canopies			20.145	ksf	20,145		
Tennis Courts (include all existing for demo)			46.390	ksf	46,390		
Basketball Courts (include all existing for demo)			34.337	ksf	34,337		
Stadium Seating			9.675	ksf	9,675		
Recreational (Total)	Recreational	City Park	340.764	ksf	340,764		
Baseball Field			105.264	ksf	105,264		
Softball Field			53.615	ksf	53,615		
Track&Field/Shotput/Discus			181.885	ksf	181,885		
Softscape (Total)	Recreational	City Park	660.182	ksf	660,182		
Landscaping			660.182	ksf	660,182		
Buildings	Recreational	Health Club	12.152	ksf	12,152		
NEW BUILDING SU	Industrial	Warehouse No Rail	0.379	ksf	379		
NEW BUILDING W	Retail	Convenience Market (24 Hour)	0.737	ksf	737		
NEW BUILDING Y	Recreational	Health Club	3.251	ksf	3,251		
NEW BUILDING Z	Recreational	Health Club	1.864	ksf	1,864		
BUILDING L (demo and replace)	Educational	High School	5.921	ksf	5,921		
Buildings Total							
NEW BUILDING SU	Industrial	Warehouse No Rail	0.379	ksf	379	0.25	
NEW BUILDING W	Retail	Strip Mall	0.737	ksf	737	0.25	
NEW BUILDING Y + Z	Recreational	Health Club	5.115	ksf	5,115.00	0.88	
BUILDING L (demo and replace)	Educational	High School	5.921	ksf	5,921	1.00	
Parking Lots	Parking	Parking Lot	43.244	ksf	43,244	0.99	
Fire Lanes	Parking	Other Asphalt Surface	25.777	ksf	25,777	0.59	Added Parking Lot Lighting to account for general lighting.
Hardscape (non-asphalt) (Total)	Parking	Other Non-Asphalt Surface	176.751	ksf	176,751	4.06	Added Parking Lot Lighting to account for general lighting.
Recreational (Total)	Recreational	City Park	22.980	Acres	1,000,946	22.98	Added Parking Lot Lighting to account for general lighting.
					Total	31.00	

Architectural Coating Area Calculations

CalEEMod assumes the total surface for architectural coating equals:		
Residential Coating Area	2.7	times the floor square footage
	75%	interior
	25%	exterior
Nonresidential Coating Area	2	times the square footage
	75%	interior
	25%	exterior
Parking Lot Coating Area	6%	of the square footage
	0%	exterior for surface lot

Source: SCAQMD, CEQA Air Quality Handbook, (1993) A9-124.

South Plaza

Nonresidential			
Land Use	**Area (sf)**	**Interior (sf)**	**Exterior (sf)**
NEW BUILDING SU	379	569	190
NEW BUILDING W	737	1,106	369
NEW BUILDING Y + Z	5,115	7,673	2,558
BUILDING L (demo and replace)	5,921	8,882	2,961
Hardscape (non-asphalt) (Total)	176,751	265,127	88,376
Total Nonresidential		**283,355**	**94,452**

Parking			
Land Use	**Area (sf)**	**Interior (sf)**	**Exterior (sf)**
Parking Lots	43,244	**2,595**	
Fire Lanes	25,777	**1,547**	
		4,141	

4th and Central

Construction Annual GHG

	Metric Tons/Year			
Year	**On-Road Mobile Sources**	**CalEEMod**	**Water + Construction Office**	**Total**
2023	1,741	343	4	2,088
2024	2,508	327	5	2,840
2025	774	133	2	909
Total	**5,023**	**804**	11	**5,838**
Amortized - 30 years	**167**	**27**	**0.4**	**195**

4th and Central
Construction GHG Analysis

Temporary Construction Trailer - Electricity

Land Use	Square Feet	Energy Use per SF	Energy Use per year (kWh)	Estimated Project Construction Duration (years)	Total Energy Use (kWh)	Construction Office GHG Emissions Total	Electricity Emission Factor	Electricity Emission Factor
General Office	2,000	13.0	25,980	2.1	54,095	9.64	**(MT CO2/MWh)**	**(lbs CO2/MWh)**
							0.18	390.98
							(MT CH4/MWh)	**(lbs CH4/MWh)**
							1.50E-05	0.0330
							(MT N2O/MWh)	**(lbs N2O/MWh)**
							1.81E-06	0.0040

Note: CalEEMod 2020.4.0 used to estimate energy use for temporary construction office

Morningside HS
Construction Energy
Construction Water Energy Estimates

Park Zone	Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	Annual Electricity Demand from Water Conveyance (MWh)
Project	Demolition	1	55	0.165	2.1	1.1
Project	Site Preparation	1.5	16	0.072	0.9	0.5
Project	Grading	3	38	0.342	4.5	2.2
Total				**0.579**	**7.5**	**3.8**

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	9727	111	1272	1911

Construction Water GHG Emissions Total
1.34

Electricity Emission Factor	Electricity Emission Factor
(MT CO2e/MWh)	**(lbs CO2e/MWh)**
0.18	390.98
(MT CH4/MWh)	**(lbs CH4/MWh)**
1.50E-05	0.033
(MT N2O/MWh)	**(lbs N2O/MWh)**
1.81E-06	0.00400

Sources and Assumptions:

CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday

-Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod).

-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore (20.94 GAL/SF/year) x (43,560 SF/acre) / (365 days/year) / (0.85) = 2,940 gallons/acre/day, rounded up to 3,000 gallons/acre/day. (U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use." July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

Morningside HS
Total Emissions

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	(MT/yr) Total CO2e
Demolition	2023															
Total Haul Trips	17,928															
Hauling	326	55	8	28.2	15	2.37	64.36	43.54	0.34	8.47	0.507	8.98	2.26	0.49	2.74	976.10
Vendor	0	55	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Worker	18	55	8	14.7	0	0.01	0.06	0.67	0.00	0.18	0.001	0.19	0.05	0.00	0.05	4.58
					Total	2.38	64.43	44.22	0.34	8.66	0.508	9.16	2.30	0.49	2.79	980.68
Site Prep	2023															
Total Haul Trips	0															
Hauling	0	16	8	28.2	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	0	16	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Worker	20	16	8	14.7	0	0.01	0.07	0.75	0.00	0.21	0.001	0.21	0.05	0.00	0.05	1.48
					Total	0.01	0.07	0.75	0.00	0.21	0.001	0.21	0.05	0.00	0.05	1.48
Grading/Excavation	2023															
Total Haul Trips	6,140															
Hauling	162	38	8	28.2	15	1.18	31.98	21.64	0.17	4.21	0.252	4.46	1.12	0.24	1.36	334.30
Vendor	0	38	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Worker	24	38	8	14.7	0	0.02	0.09	0.90	0.00	0.25	0.001	0.25	0.06	0.00	0.06	4.22
					Total	1.19	32.07	22.53	0.17	4.46	0.253	4.71	1.18	0.24	1.43	338.51
Building Modernization + Campu	2023															
Total Haul Trips	0															
Hauling	0	43	8	20	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	372	43	8	6.9	15	1.38	26.39	23.32	0.10	2.19	0.111	2.30	0.57	0.11	0.68	231.34
Worker	950	43	8	14.7	0	0.64	3.39	35.43	0.10	9.76	0.055	9.81	2.43	0.05	2.48	188.84
					Total	2.02	29.78	58.75	0.20	11.94	0.166	12.11	3.00	0.16	3.16	420.17
Building Modernization + Campu	2024															
Total Haul Trips	0															
Hauling	0	262	8	20	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	372	262	8	6.9	15	1.36	25.61	22.99	0.10	2.19	0.107	2.29	0.57	0.10	0.68	1389.13
Worker	950	262	8	14.7	0	0.56	3.06	32.67	0.09	9.76	0.052	9.81	2.42	0.05	2.47	1119.02
					Total	1.92	28.67	55.66	0.19	11.94	0.159	12.10	3.00	0.15	3.15	2508.15
Building Modernization + Campu	2025															
Total Haul Trips	0															
Hauling	0	80	8	20	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	372	80	8	6.9	15	1.34	24.73	22.69	0.10	2.18	0.102	2.29	0.57	0.10	0.67	416.92
Worker	950	80	8	14.7	0	0.50	2.78	30.35	0.09	9.75	0.049	9.80	2.42	0.05	2.47	332.22
					Total	1.84	27.51	53.05	0.19	11.94	0.151	12.09	3.00	0.14	3.14	749.14
Pavings	2025															
Total Haul Trips	0															
Hauling	0	28	8	20	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Worker	16	28	8	14.7	0	0.01	0.05	0.51	0.00	0.16	0.001	0.17	0.04	0.00	0.04	1.96
					Total	0.01	0.05	0.51	0.00	0.16	0.001	0.17	0.04	0.00	0.04	1.96
Architectural Coatings	2025															
Total Haul Trips	0															
Hauling	0	28	8	20	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
Worker	190	28	8	14.7	0	0.10	0.56	6.07	0.02	1.95	0.010	1.96	0.48	0.01	0.49	23.26
					Total	0.10	0.56	6.07	0.02	1.95	0.010	1.96	0.48	0.01	0.49	23.26

Morningside HS
Running Emissions

			Running Emissions Factor (grams/mile)						Running Emissions Factor (grams/mile)		
			ROG_RUNEX	NOx_RUNEX	CO_RUNEX	SOx_RUNEX	PM10_RUNEX	PM2.5_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX
2025	2025Hauling	Hauling	0.01437944	1.662749972	0.51520497	0.01390779	0.02389452	0.02285639	1532.44355	0.07834145	0.24434833
2025	2025Vendor	Vendor	0.01760775	1.192913115	0.40524391	0.01255696	0.0160024	0.01530399	1355.54323	0.04334823	0.19105447
2025	2025Worker	Worker	0.01639808	0.071550735	0.98587189	0.00292026	0.00160066	0.00147299	295.413817	0.00395768	0.00621482
2026	2026Hauling	Hauling	0.01376405	1.595849109	0.49695887	0.01364807	0.02370376	0.02267409	1504.81428	0.07447891	0.23998519
2026	2026Vendor	Vendor	0.01588145	1.125637812	0.37555792	0.01233428	0.01550079	0.01482427	1332.37984	0.04136649	0.18835672
2026	2026Worker	Worker	0.01474423	0.064876665	0.92148333	0.00284763	0.00151768	0.00139649	288.065796	0.00359651	0.00581535
2027	2027Hauling	Hauling	0.01322008	1.536397393	0.47417014	0.01337135	0.02376842	0.02273616	1474.76922	0.06997872	0.23521638
2027	2027Vendor	Vendor	0.01440232	1.064732037	0.34654864	0.0120909	0.01519791	0.0145347	1306.68278	0.03905997	0.18528831
2027	2027Worker	Worker	0.0132844	0.05897072	0.863434	0.00278193	0.00142337	0.00130945	281.41861	0.00327875	0.00546182
2028	2028Hauling	Hauling	0.0127141	1.477217073	0.45594662	0.01306039	0.02352009	0.02249875	1441.12351	0.06605026	0.22988017
2028	2028Vendor	Vendor	0.01313168	1.005970191	0.32291583	0.01179881	0.0147601	0.01411604	1275.83657	0.03704297	0.18149225
2028	2028Worker	Worker	0.01205342	0.05379889	0.81508231	0.00272065	0.00132593	0.00121968	275.219388	0.00300864	0.00515189
2029	2029Hauling	Hauling	0.01224311	1.419501823	0.43714337	0.012739	0.02322963	0.02222102	1406.14326	0.06215409	0.2243222
2029	2029Vendor	Vendor	0.01201	0.950241812	0.30084253	0.01147453	0.014337	0.01371146	1241.45381	0.03503263	0.17718762
2029	2029Worker	Worker	0.0109225	0.049032525	0.77061842	0.00266422	0.00123364	0.00113469	269.510299	0.00276187	0.00486871

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Demolition	2023													
Total Haul Trips	17928													
Hauling	326	55	8	28.2	0.32	36.88	11.35	0.29	0.49	0.47	800.46	1.10	38.02	839.58
Vendor	0	55	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	55	8	14.7	0.01	0.05	0.67	0.00	0.00	0.00	4.54	0.00	0.03	4.58
Site Prep	2023													
Total Haul Trips	0													
Hauling	0	16	8	28.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	16	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	16	8	14.7	0.01	0.06	0.75	0.00	0.00	0.00	1.47	0.00	0.01	1.48
Grading/Excavation	2023													
Total Haul Trips	6140													
Hauling	162	38	8	28.2	0.16	18.33	5.64	0.14	0.24	0.23	274.14	0.38	13.02	287.54
Vendor	0	38	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	24	38	8	14.7	0.02	0.07	0.90	0.00	0.00	0.00	4.19	0.00	0.03	4.22
Building Modernization + C	2023													
Total Haul Trips	0													
Hauling	0	43	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	43	8	6.9	0.12	7.61	2.75	0.07	0.10	0.09	154.09	0.13	6.43	160.66
Worker	950	43	8	14.7	0.64	2.73	35.43	0.10	0.06	0.05	187.47	0.07	1.30	188.84
Building Modernization + C	2024													
Total Haul Trips	0													
Hauling	0	262	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	262	8	6.9	0.11	7.17	2.50	0.07	0.09	0.09	926.69	0.76	38.80	966.25
Worker	950	262	8	14.7	0.56	2.45	32.67	0.09	0.05	0.05	1111.33	0.40	7.29	1119.02
Building Modernization + C	2025													
Total Haul Trips	0													
Hauling	0	80	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	80	8	6.9	0.10	6.75	2.29	0.07	0.09	0.09	278.35	0.22	11.69	290.27
Worker	950	80	8	14.7	0.50	2.20	30.35	0.09	0.05	0.05	330.04	0.11	2.07	332.22
Pavings	2025													
Total Haul Trips	0													
Hauling	0	28	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	16	28	8	14.7	0.01	0.04	0.51	0.00	0.00	0.00	1.95	0.00	0.01	1.96
Architectural Coatings	2025													
Total Haul Trips	0													
Hauling	0	28	8	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	190	28	8	14.7	0.10	0.44	6.07	0.02	0.01	0.01	23.10	0.01	0.14	23.26

Morningside HS
Idling Emissions

		Idling Emissions Factor (grams/minute)						Idling Emissions Factor (grams/minute)		
		ROG_IDLEX	NOx_IDLEX	CO_IDLEX	SOx_IDLEX	PM10_IDLEX	PM2.5_IDLEX	CO2_IDLEX	CH4_IDLEX	N2O_IDLEX
2025	2025Hauling Hauling	0.18713033	2.264749705	2.96368499	0.00407507	0.0012408	0.00118447	462.784074	0.09392132	0.07441412
2025	2025Vendor Vendor	0.10054012	1.32766751	1.65830264	0.00239209	0.00094223	0.00089998	269.94172	0.05195541	0.04307546
2025	2025Worker Worker	0	0	0	0	0	0	0	0	0
2026	2026Hauling Hauling	0.18581453	2.20283162	2.95149578	0.00398172	0.00118326	0.0011293	453.111594	0.09241587	0.07289884
2026	2026Vendor Vendor	0.0996196	1.287653231	1.65082764	0.00234189	0.0008589	0.00082019	264.786505	0.05126821	0.04228174
2026	2026Worker Worker	0	0	0	0	0	0	0	0	0
2027	2027Hauling Hauling	0.18444656	2.142407261	2.93701424	0.0038895	0.00113452	0.00108256	443.460401	0.09083936	0.07138232
2027	2027Vendor Vendor	0.09868778	1.248580039	1.64179772	0.00229123	0.00078955	0.00075377	259.526004	0.05052808	0.04146862
2027	2027Worker Worker	0	0	0	0	0	0	0	0	0
2028	2028Hauling Hauling	0.1829387	2.083870293	2.91906758	0.00379486	0.00109149	0.0010413	433.432412	0.08920259	0.06980086
2028	2028Vendor Vendor	0.0976908	1.210286335	1.63038193	0.00223795	0.00073136	0.00069804	253.916863	0.04972255	0.04059723
2028	2028Worker Worker	0	0	0	0	0	0	0	0	0
2029	2029Hauling Hauling	0.181282	2.029158754	2.89799557	0.00370152	0.00104561	0.00099733	423.427972	0.08742756	0.06821784
2029	2029Vendor Vendor	0.09661927	1.174026507	1.6166969	0.00218377	0.00067824	0.00064718	248.146852	0.04882313	0.03969738
2029	2029Worker Worker	0	0	0	0	0	0	0	0	0
	GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition	2023													
Total Haul Trips	17928													
Hauling	326	55	8	15	2.05	25.58	32.19	0.05	0.01	0.01	129.82	0.66	6.05	136.53
Vendor	0	55	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	55	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Prep	2023													
Total Haul Trips	0													
Hauling	0	16	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	16	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	16	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	2023													
Total Haul Trips	6140													
Hauling	162	38	8	15	1.02	12.71	16.00	0.02	0.01	0.01	44.46	0.23	2.07	46.76
Vendor	0	38	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	24	38	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Modernization + C	2023													
Total Haul Trips	0													
Hauling	0	43	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	43	8	15	1.26	17.17	20.56	0.03	0.01	0.01	67.25	0.32	3.11	70.68
Worker	950	43	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Modernization + C	2024													
Total Haul Trips	0													
Hauling	0	262	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	262	8	15	1.25	16.80	20.49	0.03	0.01	0.01	402.34	1.93	18.61	422.88
Worker	950	262	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Modernization + C	2025													
Total Haul Trips	0													
Hauling	0	80	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	80	8	15	1.24	16.33	20.40	0.03	0.01	0.01	120.50	0.58	5.58	126.66
Worker	950	80	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavings	2025													
Total Haul Trips	0													
Hauling	0	28	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	16	28	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	2025													
Total Haul Trips	0													
Hauling	0	28	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	190	28	8	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Morningside HS

Road Dust, Break Wear, and Tire wear Emissions

		Emission Factors (grams/mile)					
		PM10			PM2.5		
		RD	PM10_PMBW	PM10_PMTW	RD	PM2.5_PMBW	PM2.5_PMTW
2025	2025Hauling Hauling	0.29984991	0.082193524	0.03528459	0.07359952	0.02876773	0.00882115
2025	2025Vendor Vendor	0.29984991	0.062593489	0.02364229	0.07359952	0.02190772	0.00591057
2025	2025Worker Worker	0.29984991	0.008968156	0.008	0.07359952	0.00313885	0.002
2026	2026Hauling Hauling	0.29984991	0.082405307	0.03529039	0.07359952	0.02884186	0.0088226
2026	2026Vendor Vendor	0.29984991	0.062625784	0.02364519	0.07359952	0.02191902	0.0059113
2026	2026Worker Worker	0.29984991	0.008948145	0.008	0.07359952	0.00313185	0.002
2027	2027Hauling Hauling	0.29984991	0.082414193	0.03529623	0.07359952	0.02884497	0.00882406
2027	2027Vendor Vendor	0.29984991	0.062505591	0.02364812	0.07359952	0.02187696	0.00591203
2027	2027Worker Worker	0.29984991	0.008900193	0.008	0.07359952	0.00311507	0.002
2028	2028Hauling Hauling	0.29984991	0.082579388	0.03530171	0.07359952	0.02890279	0.00882543
2028	2028Vendor Vendor	0.29984991	0.062418874	0.02365085	0.07359952	0.02184661	0.00591271
2028	2028Worker Worker	0.29984991	0.008877894	0.008	0.07359952	0.00310726	0.002
2029	2029Hauling Hauling	0.29984991	0.082650427	0.03530708	0.07359952	0.02892765	0.00882677
2029	2029Vendor Vendor	0.29984991	0.062225219	0.02365354	0.07359952	0.02177883	0.00591339
2029	2029Worker Worker	0.29984991	0.008855837	0.008	0.07359952	0.00309954	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Demolition	2023									
Total Haul Trips	17928									
Hauling	326	55	8	28.2	6.08	1.68	0.71	1.49	0.59	0.18
Vendor	0	55	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	55	8	14.7	0.17	0.01	0.00	0.04	0.00	0.00
Site Prep	2023									
Total Haul Trips	0									
Hauling	0	16	8	28.2	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	16	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	16	8	14.7	0.19	0.01	0.01	0.05	0.00	0.00
Grading/Excavation	2023									
Total Haul Trips	6140									
Hauling	162	38	8	28.2	3.02	0.83	0.36	0.74	0.29	0.09
Vendor	0	38	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	24	38	8	14.7	0.23	0.01	0.01	0.06	0.00	0.00
Building Modernization + C	2023									
Total Haul Trips	0									
Hauling	0	43	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	43	8	6.9	1.70	0.36	0.13	0.42	0.12	0.03
Worker	950	43	8	14.7	9.23	0.28	0.25	2.27	0.10	0.06
Building Modernization + C	2024									
Total Haul Trips	0									
Hauling	0	262	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	262	8	6.9	1.70	0.35	0.13	0.42	0.12	0.03
Worker	950	262	8	14.7	9.23	0.28	0.25	2.27	0.10	0.06
Building Modernization + C	2025									
Total Haul Trips	0									
Hauling	0	80	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	372	80	8	6.9	1.70	0.35	0.13	0.42	0.12	0.03
Worker	950	80	8	14.7	9.23	0.28	0.25	2.27	0.10	0.06
Pavings	2025									
Total Haul Trips	0									
Hauling	0	28	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	16	28	8	14.7	0.16	0.00	0.00	0.04	0.00	0.00
Architectural Coatings	2025									
Total Haul Trips	0									
Hauling	0	28	8	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	190	28	8	14.7	1.85	0.06	0.05	0.45	0.02	0.01

Morningside HS
Road Dust

Paved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,P} = (k\ (sL)^{0.91} \times (W)^{1.02})$

Where:

$EF_{Dust,P}$ =	Paved Road Dust Emission Factor (having the same units as k)
k =	particle size multiplier
sL =	road surface silt loading (g/m^2)
W =	average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	0.9979	0.2449
sL	0.1	0.1
W	2.4	2.4
$EF_{Dust,P}$	3.00E-01	7.36E-02

Unpaved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,U} = (k\ (\ s / 12)^{1} \times (Sp / 30)^{0.5} / (M / 0.5)^{0.2}) - C)$

Where:

$EF_{Dust,U}$ =	Unpaved Road Dust Emission Factor (having the same units as k)
k =	particle size multiplier
s =	surface material silt content (%)
Sp =	mean vehicle speed (mph)
M =	surface material moisture content (%)
C =	Emission Factor for 1980s vehicle fleet exhaust, brake wear, and tire wear

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	816.47	81.65
s	4.3%	4.3%
Sp	15	15
M	0.5%	0.5%
C	0.00047	0.00036
$EF_{Dust,U}$	5.20E+00	5.19E-01

Sources:

SCAQMD, CalEEMod, Version 2011.1.
CARB, *Entrained Dust from Paved Road Travel: Emission Estimation Methodology Background Document* , (1997).
USEPA, *AP-42* , Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, (2011).
ESA, 2022.

Morningside HS

Greenhouse Gas Emissions Summary

Project Operations Summary With GHG Reduction Characteristics, Features, and Measures (Full Buildout Year	
Category	**$MTCO_2e/yr$**
Mobile	1,775.99
Area	0.01
Electricity	124.65
Natural Gas	93.27
Waste	9.59
Water	58.03
Construction	194.60
Project Subtotal	**2,256.12**
Project Net Total GHG Emissions	**2,256.12**

Morningside HS
Pole Lighting and LED Screens

Pole Lighting
Based on Illuminance Calculations From Lighting Analysis

Circuit Summary

Circuit	Description	Load (kW)	Fixture Qty
A	Football	61.8	48
B	Football Egress	1.6	4
		63.400	

Assumptions	Weekdays+Sundays/Year	313	
	Saturdays (when facilities will be used)	10	
	Lighting # hours per day	4	
	hours operating per year	1292	
	Energy usage per year	81913	kwh/year

Total Energy (Pole Lighting and LED Screens)

Total Energy Usage	81913	kwh/year
	81.9	mwh/year
Carbon Intensity Factor	390.98	lbs CO2/MWh
CH4IntensityFactor	0.029	lbs CO2/MWh
N2OIntensityFactor	0.006	lbs N2O/MWh
CO2e lbs/year	32232.11	
lbs/metric ton	2204.623	
CO2e MT/year	14.62	

Morningside HS
Operational Energy Analysis

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Land Use Type	Number of EVSE Charging Spaces	Average Charge (kWh/day) [a]	Days/Year	Electricity Demand (kWh/yr)	Electricity Demand (MWh/yr)
Total	**25**	**4.4**	**365**	40,150	40.15

Electricity Emission Factor (MT CO2/MWh)	Electricity Emission Factor (lbs CO2/MWh)	Total EV Charging GHG Emissions Per Year
0.18	390.98	7.17

(MT CH4/MWh)	(lbs CH4/MWh)
1.32E-05	0.029

(MT N2O/MWh)	(lbs N2O/MWh)
2.80E-06	0.00617

Notes:

a. Estimated based on reference sources listed below.

b. Project would install 25 EV Charging Spaces

c. Project would install pre-wiring for EV charging spaces for 20 percent of its parking capacity for future use (so 10% in addition to the immediate use).

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.
Available at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.
Available at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.
Available at: http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf.

Morningside HS
Air Quality and GHG Assessment
Operational Mobile Emissions

				Criteria Pollutant Emission Factors (lb/mile)										Criteria Pollutant Emissions (pounds/day)										GHG Emissions (metric tons/year)			
	Year	Max Daily VMT	Annual VMT	ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2_5 Road Dust	PM2_5	PM2.5 Tota	ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2_5 Road Dust	PM2_5	PM2.5 Total	CO2	CH4	N2O	CO2e
																								1	*25*	*298*	
Project	2025	12,772	454,772	3.03E-04	4.33E-04	2.79E-03	7.98E-06	6.61E-04	5.63E-05	7.17E-04	1.62E-04	2.12E-05	1.83E-04	3.87	5.53	35.64	0.10	8.44	0.72	9.16	2.07	0.27	2.34	1,745.61	0.09	0.09	1,775.99

Source: LLG Engineers provided new project trips for new stadium and softball seating events
Trip length based on CalEEMod H-O trip length as recommended by CalEEMod Appendix A, calculation details for trips from home to school.

Emissions Factors

	lbs/mile						MT/mile			
	ROG	NOx	CO	SOx	PM10	PM2_5	CO2	CH4	N2O	CO2e
2022	0.000359867	0.00057189	0.003440258	8.57954E-06	5.71252E-05	2.2029E-05	0.000402224	2.20336E-08	2.23038E-08	0.000409421
2023	0.000337845	0.000493806	0.003188855	8.38429E-06	5.67112E-05	2.16391E-05	0.000393082	2.07298E-08	2.15036E-08	0.000400009
2024	0.000318443	0.000460848	0.002969323	8.18004E-06	5.6413E-05	2.13828E-05	0.000383655	1.97448E-08	2.08382E-08	0.000390359
2025	0.000302993	0.00043287	0.002790261	7.97996E-06	5.62765E-05	2.12032E-05	0.000374451	1.89061E-08	2.02799E-08	0.000380967
2026	0.000289423	0.000409383	0.002644948	7.80669E-06	5.62405E-05	2.10723E-05	0.000366519	1.81928E-08	1.98433E-08	0.000372888
2027	0.000277982	0.000388194	0.002516183	7.6441E-06	5.60834E-05	2.08959E-05	0.000358973	1.75023E-08	1.94065E-08	0.000365194
2028	0.000266843	0.000368833	0.002407743	7.48696E-06	5.59364E-05	2.07046E-05	0.000351597	1.69404E-08	1.89732E-08	0.000357675
2029	0.000254684	0.000351188	0.00230881	7.3381E-06	5.57791E-05	2.05175E-05	0.000344517	1.64079E-08	1.85436E-08	0.000350453

Morningside HS
Road Dust Emission Factors

Paved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,P} = (k\ (sL)^{0.91} \times (W)^{1.02})$

Where:

$EF_{Dust,P}$ = Paved Road Dust Emission Factor (having the same units as k)
k = particle size multiplier
sL = road surface silt loading (g/m^2)
W = average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	0.9979	0.2449
sL	0.1	0.1
W	2.4	2.4
$EF_{Dust,P}$	3.00E-01	7.36E-02

Unpaved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,U} = (k\ (\ s / 12)^{1} \times (Sp / 30)^{0.5} / (M / 0.5)^{0.2}) - C)$

Where:

$EF_{Dust,U}$ = Unpaved Road Dust Emission Factor (having the same units as k)
k = particle size multiplier
s = surface material silt content (%)
Sp = mean vehicle speed (mph)
M = surface material moisture content (%)
C = Emission Factor for 1980s vehicle fleet exhaust, brake wear, and tire wear

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	816.47	81.65
s	4.3%	4.3%
Sp	15	15
M	0.5%	0.5%
C	0.00047	0.00036
$EF_{Dust,U}$	5.20E+00	5.19E-01

Sources:
SCAQMD, CalEEMod, Version 2011.1.
CARB, *Entrained Dust from Paved Road Travel: Emission Estimation Methodology Background Document* , (1997).
USEPA, *AP-42* , Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, (2011).
ESA, 2022.

Appendix G.2

CalEEMod Outputs

ESA

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Morningside - Construction - South Coast Air Basin, Annual

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

Morningside - Construction

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	5.92	1000sqft	1.00	5,921.00	0
Unrefrigerated Warehouse-No Rail	0.38	1000sqft	0.25	379.00	0
Other Asphalt Surfaces	25.78	1000sqft	0.59	25,777.00	0
Other Non-Asphalt Surfaces	176.75	1000sqft	4.06	176,751.00	0
Parking Lot	43.24	1000sqft	0.99	43,244.00	0
City Park	45.98	Acre	45.98	2,002,826.00	0
Health Club	5.12	1000sqft	0.88	5,115.00	0
Strip Mall	0.74	1000sqft	0.25	737.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**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 - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

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

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMod.

Demolition -

Grading -

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	6,076.00	94,452.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	18,228.00	283,355.00
tblArchitecturalCoating	ConstArea_Parking	14,746.00	4,141.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	28.00
tblConstructionPhase	NumDays	1,110.00	385.00
tblConstructionPhase	NumDays	70.00	55.00
tblConstructionPhase	NumDays	110.00	38.00
tblConstructionPhase	NumDays	75.00	28.00
tblConstructionPhase	NumDays	40.00	16.00
tblGrading	MaterialExported	0.00	30,700.00
tblLandUse	LandUseSquareFeet	5,920.00	5,921.00
tblLandUse	LandUseSquareFeet	380.00	379.00
tblLandUse	LandUseSquareFeet	25,780.00	25,777.00
tblLandUse	LandUseSquareFeet	176,750.00	176,751.00
tblLandUse	LandUseSquareFeet	43,240.00	43,244.00
tblLandUse	LandUseSquareFeet	2,002,888.80	2,002,826.00
tblLandUse	LandUseSquareFeet	5,120.00	5,115.00

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

tblLandUse	LandUseSquareFeet	740.00	737.00
tblLandUse	LotAcreage	0.14	1.00
tblLandUse	LotAcreage	0.01	0.25
tblLandUse	LotAcreage	0.12	0.88
tblLandUse	LotAcreage	0.02	0.25
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	6,581.00	0.00
tblTripsAndVMT	HaulingTripNumber	3,838.00	0.00
tblTripsAndVMT	VendorTripNumber	371.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	949.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	190.00	0.00

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					
2023	0.2102	1.9932	1.7705	3.8900e-003	1.0459	0.0877	1.1337	0.2583	0.0813	0.3396	0.0000	340.5416	340.5416	0.1018	0.0000	343.0871

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

2024	0.2053	1.8897	2.2567	3.7800e-003	0.0000	0.0860	0.0860	0.0000	0.0808	0.0808	0.0000	325.4719	325.4719	0.0789	0.0000	327.4433
2025	0.9615	0.6762	0.9234	1.5300e-003	0.0000	0.0294	0.0294	0.0000	0.0276	0.0276	0.0000	132.2059	132.2059	0.0333	0.0000	133.0379
Maximum	**0.9615**	**1.9932**	**2.2567**	**3.8900e-003**	**1.0459**	**0.0877**	**1.1337**	**0.2583**	**0.0813**	**0.3396**	**0.0000**	**340.5416**	**340.5416**	**0.1018**	**0.0000**	**343.0871**

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	0.2102	1.9932	1.7705	3.8900e-003	0.4079	0.0877	0.4957	0.1007	0.0813	0.1821	0.0000	340.5412	340.5412	0.1018	0.0000	343.0867
2024	0.2053	1.8897	2.2567	3.7800e-003	0.0000	0.0860	0.0860	0.0000	0.0808	0.0808	0.0000	325.4715	325.4715	0.0789	0.0000	327.4429
2025	0.9615	0.6762	0.9234	1.5300e-003	0.0000	0.0294	0.0294	0.0000	0.0276	0.0276	0.0000	132.2058	132.2058	0.0333	0.0000	133.0378
Maximum	**0.9615**	**1.9932**	**2.2567**	**3.8900e-003**	**0.4079**	**0.0877**	**0.4957**	**0.1007**	**0.0813**	**0.1821**	**0.0000**	**340.5412**	**340.5412**	**0.1018**	**0.0000**	**343.0867**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**61.00**	**0.00**	**51.08**	**61.00**	**0.00**	**35.18**	**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	**6-1-2023**	**8-31-2023**	0.9487	0.9487
2	**9-1-2023**	**11-30-2023**	1.0772	1.0772
3	**12-1-2023**	**2-29-2024**	0.5321	0.5321
4	**3-1-2024**	**5-31-2024**	0.5254	0.5254

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

5	**6-1-2024**	**8-31-2024**	0.5254	0.5254
6	**9-1-2024**	**11-30-2024**	0.5197	0.5197
7	**12-1-2024**	**2-28-2025**	0.4894	0.4894
8	**3-1-2025**	**5-31-2025**	1.3200	1.3200
		Highest	1.3200	1.3200

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	6/1/2023	8/16/2023	5	55	
2	Site Preparation	Site Preparation	8/17/2023	9/7/2023	5	16	
3	Grading	Grading	9/8/2023	10/31/2023	5	38	
4	Building Construction	Building Construction	11/1/2023	4/22/2025	5	385	
5	Paving	Paving	4/23/2025	5/31/2025	5	28	
6	Architectural Coating	Architectural Coating	4/23/2025	5/31/2025	5	28	

Acres of Grading (Site Preparation Phase): 24

Acres of Grading (Grading Phase): 114

Acres of Paving: 5.64

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 283,355; Non-Residential Outdoor: 94,452; Striped Parking Area: 4,141

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	8.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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

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					0.7121	0.0000	0.7121	0.1078	0.0000	0.1078	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0763	0.6889	0.6306	1.4300e-003		0.0310	0.0310		0.0288	0.0288	0.0000	125.4083	125.4083	0.0365	0.0000	126.3210
Total	**0.0763**	**0.6889**	**0.6306**	**1.4300e-003**	**0.7121**	**0.0310**	**0.7431**	**0.1078**	**0.0288**	**0.1366**	**0.0000**	**125.4083**	**125.4083**	**0.0365**	**0.0000**	**126.3210**

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	0.0000	0.0000	0.0000	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**

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

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					0.2777	0.0000	0.2777	0.0421	0.0000	0.0421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0763	0.6889	0.6306	1.4300e-003		0.0310	0.0310		0.0288	0.0288	0.0000	125.4082	125.4082	0.0365	0.0000	126.3208
Total	**0.0763**	**0.6889**	**0.6306**	**1.4300e-003**	**0.2777**	**0.0310**	**0.3087**	**0.0421**	**0.0288**	**0.0708**	**0.0000**	**125.4082**	**125.4082**	**0.0365**	**0.0000**	**126.3208**

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**

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

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					0.1573	0.0000	0.1573	0.0808	0.0000	0.0808	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.2487	0.1723	4.1000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	36.0493	36.0493	0.0117	0.0000	36.3408
Total	**0.0253**	**0.2487**	**0.1723**	**4.1000e-004**	**0.1573**	**0.0112**	**0.1684**	**0.0808**	**0.0103**	**0.0911**	**0.0000**	**36.0493**	**36.0493**	**0.0117**	**0.0000**	**36.3408**

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	0.0000	0.0000	0.0000	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**

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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					0.0613	0.0000	0.0613	0.0315	0.0000	0.0315	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.2487	0.1723	4.1000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	36.0493	36.0493	0.0117	0.0000	36.3408
Total	**0.0253**	**0.2487**	**0.1723**	**4.1000e-004**	**0.0613**	**0.0112**	**0.0725**	**0.0315**	**0.0103**	**0.0418**	**0.0000**	**36.0493**	**36.0493**	**0.0117**	**0.0000**	**36.3408**

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**

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

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					0.1766	0.0000	0.1766	0.0697	0.0000	0.0697	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7236	0.5955	1.4300e-003		0.0295	0.0295		0.0272	0.0272	0.0000	125.6777	125.6777	0.0407	0.0000	126.6939
Total	**0.0727**	**0.7236**	**0.5955**	**1.4300e-003**	**0.1766**	**0.0295**	**0.2061**	**0.0697**	**0.0272**	**0.0968**	**0.0000**	**125.6777**	**125.6777**	**0.0407**	**0.0000**	**126.6939**

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	0.0000	0.0000	0.0000	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**

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

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					0.0689	0.0000	0.0689	0.0272	0.0000	0.0272	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7236	0.5955	1.4300e-003		0.0295	0.0295		0.0272	0.0272	0.0000	125.6776	125.6776	0.0407	0.0000	126.6937
Total	**0.0727**	**0.7236**	**0.5955**	**1.4300e-003**	**0.0689**	**0.0295**	**0.0984**	**0.0272**	**0.0272**	**0.0543**	**0.0000**	**125.6776**	**125.6776**	**0.0407**	**0.0000**	**126.6937**

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**

Morningside - Construction - South Coast Air Basin, Annual

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

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	0.0360	0.3319	0.3722	6.2000e-004		0.0161	0.0161		0.0151	0.0151	0.0000	53.4062	53.4062	0.0130	0.0000	53.7315
Total	**0.0360**	**0.3319**	**0.3722**	**6.2000e-004**		**0.0161**	**0.0161**		**0.0151**	**0.0151**	**0.0000**	**53.4062**	**53.4062**	**0.0130**	**0.0000**	**53.7315**

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	0.0000	0.0000	0.0000	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**

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

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	0.0360	0.3319	0.3722	6.2000e-004		0.0161	0.0161		0.0151	0.0151	0.0000	53.4062	53.4062	0.0130	0.0000	53.7314
Total	**0.0360**	**0.3319**	**0.3722**	**6.2000e-004**		**0.0161**	**0.0161**		**0.0151**	**0.0151**	**0.0000**	**53.4062**	**53.4062**	**0.0130**	**0.0000**	**53.7314**

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**

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

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	0.2053	1.8897	2.2567	3.7800e-003		0.0860	0.0860		0.0808	0.0808	0.0000	325.4719	325.4719	0.0789	0.0000	327.4433
Total	**0.2053**	**1.8897**	**2.2567**	**3.7800e-003**		**0.0860**	**0.0860**		**0.0808**	**0.0808**	**0.0000**	**325.4719**	**325.4719**	**0.0789**	**0.0000**	**327.4433**

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	0.0000	0.0000	0.0000	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**

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

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	0.2053	1.8897	2.2567	3.7800e-003		0.0860	0.0860		0.0808	0.0808	0.0000	325.4715	325.4715	0.0789	0.0000	327.4429
Total	**0.2053**	**1.8897**	**2.2567**	**3.7800e-003**		**0.0860**	**0.0860**		**0.0808**	**0.0808**	**0.0000**	**325.4715**	**325.4715**	**0.0789**	**0.0000**	**327.4429**

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**

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

3.5 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	0.0582	0.5347	0.6855	1.1500e-003		0.0226	0.0226		0.0212	0.0212	0.0000	99.4129	99.4129	0.0240	0.0000	100.0118
Total	**0.0582**	**0.5347**	**0.6855**	**1.1500e-003**		**0.0226**	**0.0226**		**0.0212**	**0.0212**	**0.0000**	**99.4129**	**99.4129**	**0.0240**	**0.0000**	**100.0118**

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	0.0000	0.0000	0.0000	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**

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

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	0.0582	0.5347	0.6855	1.1500e-003		0.0226	0.0226		0.0212	0.0212	0.0000	99.4128	99.4128	0.0240	0.0000	100.0117
Total	**0.0582**	**0.5347**	**0.6855**	**1.1500e-003**		**0.0226**	**0.0226**		**0.0212**	**0.0212**	**0.0000**	**99.4128**	**99.4128**	**0.0240**	**0.0000**	**100.0117**

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**

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

3.6 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	0.0128	0.1201	0.2041	3.2000e-004		5.8600e-003	5.8600e-003		5.3900e-003	5.3900e-003	0.0000	28.0270	28.0270	9.0600e-003	0.0000	28.2536
Paving	2.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1201**	**0.2041**	**3.2000e-004**		**5.8600e-003**	**5.8600e-003**		**5.3900e-003**	**5.3900e-003**	**0.0000**	**28.0270**	**28.0270**	**9.0600e-003**	**0.0000**	**28.2536**

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	0.0000	0.0000	0.0000	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**

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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	0.0128	0.1201	0.2041	3.2000e-004		5.8600e-003	5.8600e-003		5.3900e-003	5.3900e-003	0.0000	28.0269	28.0269	9.0600e-003	0.0000	28.2535
Paving	2.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1201**	**0.2041**	**3.2000e-004**		**5.8600e-003**	**5.8600e-003**		**5.3900e-003**	**5.3900e-003**	**0.0000**	**28.0269**	**28.0269**	**9.0600e-003**	**0.0000**	**28.2535**

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**

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

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8852					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1900e-003	0.0214	0.0338	6.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	4.7661	4.7661	2.6000e-004	0.0000	4.7726
Total	**0.8884**	**0.0214**	**0.0338**	**6.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**4.7661**	**4.7661**	**2.6000e-004**	**0.0000**	**4.7726**

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	0.0000	0.0000	0.0000	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**

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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					
Archit. Coating	0.8852					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1900e-003	0.0214	0.0338	6.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	4.7661	4.7661	2.6000e-004	0.0000	4.7726
Total	**0.8884**	**0.0214**	**0.0338**	**6.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**4.7661**	**4.7661**	**2.6000e-004**	**0.0000**	**4.7726**

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**

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	0.38	1000sqft	0.25	379.00	0
Strip Mall	0.74	1000sqft	0.25	737.00	0
Health Club	5.12	1000sqft	0.88	5,115.00	0
High School	5.92	1000sqft	1.00	5,921.00	0
Parking Lot	43.24	1000sqft	0.99	43,244.00	0
Other Asphalt Surfaces	25.78	1000sqft	0.59	25,777.00	0
Other Non-Asphalt Surfaces	176.75	1000sqft	4.06	176,751.00	0
City Park	22.98	Acre	22.98	1,000,946.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**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 - see operational assumptions

Construction Phase -

Vehicle Trips - operational mobile emissions calculated outside of CalEEMod

Area Coating - see operational assumptions

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Energy Use - see operational assumptions. parking lot lighting assumed for certain uses to account for general lighting.

Waste Mitigation - Assembly Bill 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	6076	94452
tblAreaCoating	Area_Nonresidential_Interior	18228	283355
tblAreaCoating	Area_Parking	14746	4141
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblLandUse	LandUseSquareFeet	1,001,008.80	1,000,946.00
tblLandUse	LotAcreage	0.01	0.25
tblLandUse	LotAcreage	0.02	0.25
tblLandUse	LotAcreage	0.12	0.88
tblLandUse	LotAcreage	0.14	1.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	3.98	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	1.71	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	14.07	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	1.74	0.00

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2.0 Emissions Summary

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	0.1581	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003
Energy	9.6000e-004	8.7600e-003	7.3600e-003	5.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	102.3245	102.3245	8.0100e-003	1.1200e-003	102.8598
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	8.1196	0.0000	8.1196	0.4799	0.0000	20.1161
Water						0.0000	0.0000		0.0000	0.0000	0.2037	56.8580	57.0617	0.0257	1.0800e-003	58.0253
Total	**0.1590**	**8.7900e-003**	**0.0109**	**5.0000e-005**	**0.0000**	**6.8000e-004**	**6.8000e-004**	**0.0000**	**6.8000e-004**	**6.8000e-004**	**8.3233**	**159.1895**	**167.5128**	**0.5136**	**2.2000e-003**	**181.0086**

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	0.1581	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003
Energy	9.6000e-004	8.7600e-003	7.3600e-003	5.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	102.3245	102.3245	8.0100e-003	1.1200e-003	102.8598
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	4.0598	0.0000	4.0598	0.2399	0.0000	10.0580
Water						0.0000	0.0000		0.0000	0.0000	0.2037	56.8580	57.0617	0.0257	1.0800e-003	58.0253
Total	**0.1590**	**8.7900e-003**	**0.0109**	**5.0000e-005**	**0.0000**	**6.8000e-004**	**6.8000e-004**	**0.0000**	**6.8000e-004**	**6.8000e-004**	**4.2635**	**159.1895**	**163.4530**	**0.2737**	**2.2000e-003**	**170.9506**

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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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**48.78**	**0.00**	**2.42**	**46.71**	**0.00**	**5.56**

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
City Park	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Unrefrigerated Warehouse-No Rai	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Health Club	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
High School	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Other Asphalt Surfaces	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Other Non-Asphalt Surfaces	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Parking Lot	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Strip Mall	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644
Unrefrigerated Warehouse-No Rail	0.542639	0.062168	0.185423	0.128137	0.023809	0.006526	0.012163	0.008660	0.000816	0.000502	0.024766	0.000746	0.003644

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	92.7915	92.7915	7.8300e-003	9.5000e-004	93.2702
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	92.7915	92.7915	7.8300e-003	9.5000e-004	93.2702
NaturalGas Mitigated	9.6000e-004	8.7600e-003	7.3600e-003	5.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	9.5330	9.5330	1.8000e-004	1.7000e-004	9.5896
NaturalGas Unmitigated	9.6000e-004	8.7600e-003	7.3600e-003	5.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	9.5330	9.5330	1.8000e-004	1.7000e-004	9.5896

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	106187	5.7000e-004	5.2100e-003	4.3700e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6666	5.6666	1.1000e-004	1.0000e-004	5.7002
High School	69512.5	3.7000e-004	3.4100e-003	2.8600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7095	3.7095	7.0000e-005	7.0000e-005	3.7315
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	1466.63	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0787
Unrefrigerated Warehouse-No Rail	1474.31	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0787	0.0787	0.0000	0.0000	0.0791
Total		**9.6000e-004**	**8.7600e-003**	**7.3500e-003**	**5.0000e-005**		**6.8000e-004**	**6.8000e-004**		**6.8000e-004**	**6.8000e-004**	**0.0000**	**9.5329**	**9.5329**	**1.8000e-004**	**1.7000e-004**	**9.5896**

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Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	106187	5.7000e-004	5.2100e-003	4.3700e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6666	5.6666	1.1000e-004	1.0000e-004	5.7002
High School	69512.5	3.7000e-004	3.4100e-003	2.8600e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7095	3.7095	7.0000e-005	7.0000e-005	3.7315
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	1466.63	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0787
Unrefrigerated Warehouse-No Rail	1474.31	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0787	0.0787	0.0000	0.0000	0.0791
Total		**9.6000e-004**	**8.7600e-003**	**7.3500e-003**	**5.0000e-005**		**6.8000e-004**	**6.8000e-004**		**6.8000e-004**	**6.8000e-004**	**0.0000**	**9.5329**	**9.5329**	**1.8000e-004**	**1.7000e-004**	**9.5896**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	350331	62.1297	5.2400e-003	6.4000e-004	62.4502
Health Club	42301	7.5019	6.3000e-004	8.0000e-005	7.5406
High School	34815.5	6.1744	5.2000e-004	6.0000e-005	6.2062
Other Asphalt Surfaces	9021.95	1.6000	1.4000e-004	2.0000e-005	1.6083
Other Non-Asphalt Surfaces	61862.8	10.9711	9.3000e-004	1.1000e-004	11.0277
Parking Lot	15135.4	2.6842	2.3000e-004	3.0000e-005	2.6980
Strip Mall	8202.81	1.4547	1.2000e-004	1.0000e-005	1.4622
Unrefrigerated Warehouse-No Rail	1553.9	0.2756	2.0000e-005	0.0000	0.2770
Total		**92.7915**	**7.8300e-003**	**9.5000e-004**	**93.2702**

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Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	350331	62.1297	5.2400e-003	6.4000e-004	62.4502
Health Club	42301	7.5019	6.3000e-004	8.0000e-005	7.5406
High School	34815.5	6.1744	5.2000e-004	6.0000e-005	6.2062
Other Asphalt Surfaces	9021.95	1.6000	1.4000e-004	2.0000e-005	1.6083
Other Non-Asphalt Surfaces	61862.8	10.9711	9.3000e-004	1.1000e-004	11.0277
Parking Lot	15135.4	2.6842	2.3000e-004	3.0000e-005	2.6980
Strip Mall	8202.81	1.4547	1.2000e-004	1.0000e-005	1.4622
Unrefrigerated Warehouse-No	1553.9	0.2756	2.0000e-005	0.0000	0.2770
Total		**92.7915**	**7.8300e-003**	**9.5000e-004**	**93.2702**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1581	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003
Unmitigated	0.1581	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003

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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	0.0885					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003
Total	**0.1581**	**3.0000e-005**	**3.5800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9700e-003**	**6.9700e-003**	**2.0000e-005**	**0.0000**	**7.4200e-003**

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	0.0885					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9700e-003	6.9700e-003	2.0000e-005	0.0000	7.4200e-003
Total	**0.1581**	**3.0000e-005**	**3.5800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9700e-003**	**6.9700e-003**	**2.0000e-005**	**0.0000**	**7.4200e-003**

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7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	57.0617	0.0257	1.0800e-003	58.0253
Unmitigated	57.0617	0.0257	1.0800e-003	58.0253

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 27.3802	53.9475	4.5500e-003	5.5000e-004	54.2258
Health Club	0.302813 / 0.185595	1.1610	9.9600e-003	2.4000e-004	1.4826
High School	0.196571 / 0.505469	1.5122	6.5300e-003	1.7000e-004	1.7249
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0548137 / 0.0336066	0.2102	1.8000e-003	4.0000e-005	0.2684
Unrefrigerated Warehouse-No Rail	0.087875 / 0	0.2308	2.8800e-003	7.0000e-005	0.3236
Total		**57.0617**	**0.0257**	**1.0700e-003**	**58.0253**

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

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 27.3802	53.9475	4.5500e-003	5.5000e-004	54.2258
Health Club	0.302813 / 0.185595	1.1610	9.9600e-003	2.4000e-004	1.4826
High School	0.196571 / 0.505469	1.5122	6.5300e-003	1.7000e-004	1.7249
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0548137 / 0.0225055	0.2102	1.8000e-003	4.0000e-005	0.2684
Unrefrigerated Warehouse-No Rail	0.087875 / 0	0.2308	2.8800e-003	7.0000e-005	0.3236
Total		**57.0617**	**0.0257**	**1.0700e-003**	**58.0253**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.0598	0.2399	0.0000	10.0580
Unmitigated	8.1196	0.4799	0.0000	20.1161

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.98	0.4019	0.0238	0.0000	0.9958
Health Club	29.18	5.9233	0.3501	0.0000	14.6747
High School	7.7	1.5630	0.0924	0.0000	3.8723
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.78	0.1583	9.3600e-003	0.0000	0.3923
Unrefrigerated Warehouse-No	0.36	0.0731	4.3200e-003	0.0000	0.1810
Total		**8.1196**	**0.4799**	**0.0000**	**20.1161**

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

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.99	0.2010	0.0119	0.0000	0.4979
Health Club	14.59	2.9616	0.1750	0.0000	7.3373
High School	3.85	0.7815	0.0462	0.0000	1.9362
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.39	0.0792	4.6800e-003	0.0000	0.1961
Unrefrigerated Warehouse-No	0.18	0.0365	2.1600e-003	0.0000	0.0905
Total		**4.0598**	**0.2399**	**0.0000**	**10.0580**

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 Not 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