

2020 Walnut Industrial Park - Off-Road Equipment 4 hour - Los Angeles-South Coast County, Annual

**2020 Walnut Industrial Park - Off-Road Equipment 4 hour
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	153.00	1000sqft	3.51	153,000.00	0
Parking Lot	266.00	Space	2.39	106,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Per GAA Architects Sheet No. A1.0, total building area for nine light industrial buildings is 153,000 square feet and parking provided is 266 spaces.

Construction Phase - Per construction questionnaire.

Off-road Equipment -

Off-road Equipment - Per construction questionnaire.

Off-road Equipment - Per construction questionnaire. Grading Equipment limited to 4 hours per day.

Off-road Equipment - Per construction questionnaire.

Trips and VMT - 6,278 trips hauling

Grading - 41,672 import of dirt and 8,551 export of dirt

Vehicle Trips - Per Traffic Impact Analysis.

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Area Mitigation -

Energy Mitigation -

Waste Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	230.00	264.00
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	20.00	22.00
tblGrading	MaterialExported	0.00	8,551.00
tblGrading	MaterialImported	0.00	41,672.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblVehicleTrips	ST_TR	1.32	17.44
tblVehicleTrips	SU_TR	0.68	17.44
tblVehicleTrips	WD_TR	6.97	17.44

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	2.3041	2.3041
2	4-1-2020	6-30-2020	2.2970	2.2970
3	7-1-2020	9-30-2020	1.1499	1.1499
4	10-1-2020	12-31-2020	1.1271	1.1271
5	1-1-2021	3-31-2021	0.9988	0.9988
6	4-1-2021	6-30-2021	1.0071	1.0071
7	7-1-2021	9-30-2021	0.9479	0.9479
		Highest	2.3041	2.3041

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	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111
Energy	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	700.7606	700.7606	0.0257	7.4300e-003	703.6171
Mobile	1.0199	5.4959	15.5150	0.0551	4.4846	0.0468	4.5314	1.2022	0.0437	1.2458	0.0000	5,083.8630	5,083.8630	0.2652	0.0000	5,090.4923
Waste						0.0000	0.0000		0.0000	0.0000	38.5115	0.0000	38.5115	2.2760	0.0000	95.4105
Water						0.0000	0.0000		0.0000	0.0000	11.2248	146.7887	158.0135	1.1590	0.0285	195.4734
Total	1.6674	5.6317	15.6344	0.0559	4.4846	0.0571	4.5418	1.2022	0.0540	1.2562	49.7363	5,931.4226	5,981.1589	3.7258	0.0359	6,085.0043

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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	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111
Energy	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	700.7606	700.7606	0.0257	7.4300e-003	703.6171
Mobile	1.0199	5.4959	15.5150	0.0551	4.4846	0.0468	4.5314	1.2022	0.0437	1.2458	0.0000	5,083.8630	5,083.8630	0.2652	0.0000	5,090.4923
Waste						0.0000	0.0000		0.0000	0.0000	19.2557	0.0000	19.2557	1.1380	0.0000	47.7052
Water						0.0000	0.0000		0.0000	0.0000	11.2248	146.7887	158.0135	1.1590	0.0285	195.4734
Total	1.6674	5.6317	15.6344	0.0559	4.4846	0.0571	4.5418	1.2022	0.0540	1.2562	30.4806	5,931.4226	5,961.9032	2.5878	0.0359	6,037.2991

	ROG	NOx	CO	SO2	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	38.72	0.00	0.32	30.54	0.00	0.78

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	7/2/2020	5	132	
2	Building Construction	Building Construction	7/3/2020	7/7/2021	5	264	
3	Paving	Paving	7/8/2021	8/6/2021	5	22	
4	Architectural Coating	Architectural Coating	8/7/2021	9/7/2021	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 242

Acres of Paving: 2.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 229,500; Non-Residential Outdoor: 76,500; Striped Parking Area: 6,384 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Cranes	1	4.00	231	0.29
Grading	Crawler Tractors	2	4.00	212	0.43
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	3	4.00	187	0.41
Grading	Rollers	1	4.00	80	0.38
Grading	Rubber Tired Dozers	2	4.00	247	0.40
Grading	Scrapers	3	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pavers	1	8.00	130	0.42
Building Construction	Rubber Tired Loaders	1	7.00	203	0.36
Building Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Grading	14	35.00	0.00	6,278.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	109.00	43.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2020

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					0.3961	0.0000	0.3961	0.1599	0.0000	0.1599	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2917	3.4248	1.6711	3.7900e-003		0.1405	0.1405		0.1293	0.1293	0.0000	332.8528	332.8528	0.1077	0.0000	335.5441
Total	0.2917	3.4248	1.6711	3.7900e-003	0.3961	0.1405	0.5366	0.1599	0.1293	0.2892	0.0000	332.8528	332.8528	0.1077	0.0000	335.5441

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3.2 Grading - 2020

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	0.0277	0.9322	0.2055	2.4600e-003	0.0540	2.9000e-003	0.0569	0.0148	2.7700e-003	0.0176	0.0000	241.9485	241.9485	0.0169	0.0000	242.3698
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	0.0107	8.6000e-003	0.0951	2.6000e-004	0.0253	2.2000e-004	0.0255	6.7200e-003	2.0000e-004	6.9200e-003	0.0000	23.5932	23.5932	7.4000e-004	0.0000	23.6118
Total	0.0384	0.9408	0.3006	2.7200e-003	0.0793	3.1200e-003	0.0824	0.0215	2.9700e-003	0.0245	0.0000	265.5417	265.5417	0.0176	0.0000	265.9816

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					0.1468	0.0000	0.1468	0.0593	0.0000	0.0593	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2917	3.4248	1.6711	3.7900e-003		0.1405	0.1405		0.1293	0.1293	0.0000	332.8524	332.8524	0.1077	0.0000	335.5437
Total	0.2917	3.4248	1.6711	3.7900e-003	0.1468	0.1405	0.2873	0.0593	0.1293	0.1885	0.0000	332.8524	332.8524	0.1077	0.0000	335.5437

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3.2 Grading - 2020

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	0.0277	0.9322	0.2055	2.4600e-003	0.0434	2.9000e-003	0.0463	0.0122	2.7700e-003	0.0150	0.0000	241.9485	241.9485	0.0169	0.0000	242.3698
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	0.0107	8.6000e-003	0.0951	2.6000e-004	0.0196	2.2000e-004	0.0198	5.3200e-003	2.0000e-004	5.5200e-003	0.0000	23.5932	23.5932	7.4000e-004	0.0000	23.6118
Total	0.0384	0.9408	0.3006	2.7200e-003	0.0630	3.1200e-003	0.0661	0.0176	2.9700e-003	0.0205	0.0000	265.5417	265.5417	0.0176	0.0000	265.9816

3.3 Building Construction - 2020

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	0.1767	1.6834	1.4223	2.5200e-003		0.0877	0.0877		0.0821	0.0821	0.0000	218.1546	218.1546	0.0586	0.0000	219.6194
Total	0.1767	1.6834	1.4223	2.5200e-003		0.0877	0.0877		0.0821	0.0821	0.0000	218.1546	218.1546	0.0586	0.0000	219.6194

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3.3 Building Construction - 2020

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	0.0101	0.3029	0.0820	7.2000e-004	0.0176	1.4100e-003	0.0190	5.0800e-003	1.3500e-003	6.4300e-003	0.0000	69.4351	69.4351	4.4100e-003	0.0000	69.5454
Worker	0.0327	0.0264	0.2916	8.0000e-004	0.0776	6.6000e-004	0.0783	0.0206	6.1000e-004	0.0212	0.0000	72.3627	72.3627	2.2800e-003	0.0000	72.4197
Total	0.0429	0.3293	0.3736	1.5200e-003	0.0953	2.0700e-003	0.0973	0.0257	1.9600e-003	0.0277	0.0000	141.7978	141.7978	6.6900e-003	0.0000	141.9651

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	0.1767	1.6834	1.4223	2.5200e-003		0.0877	0.0877		0.0821	0.0821	0.0000	218.1543	218.1543	0.0586	0.0000	219.6192
Total	0.1767	1.6834	1.4223	2.5200e-003		0.0877	0.0877		0.0821	0.0821	0.0000	218.1543	218.1543	0.0586	0.0000	219.6192

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3.3 Building Construction - 2020

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	0.0101	0.3029	0.0820	7.2000e-004	0.0144	1.4100e-003	0.0158	4.2900e-003	1.3500e-003	5.6300e-003	0.0000	69.4351	69.4351	4.4100e-003	0.0000	69.5454
Worker	0.0327	0.0264	0.2916	8.0000e-004	0.0601	6.6000e-004	0.0608	0.0163	6.1000e-004	0.0169	0.0000	72.3627	72.3627	2.2800e-003	0.0000	72.4197
Total	0.0429	0.3293	0.3736	1.5200e-003	0.0745	2.0700e-003	0.0766	0.0206	1.9600e-003	0.0226	0.0000	141.7978	141.7978	6.6900e-003	0.0000	141.9651

3.3 Building Construction - 2021

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	0.1652	1.5697	1.4477	2.6000e-003		0.0788	0.0788		0.0738	0.0738	0.0000	224.8715	224.8715	0.0600	0.0000	226.3709
Total	0.1652	1.5697	1.4477	2.6000e-003		0.0788	0.0788		0.0738	0.0738	0.0000	224.8715	224.8715	0.0600	0.0000	226.3709

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3.3 Building Construction - 2021

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	8.9500e-003	0.2843	0.0771	7.3000e-004	0.0182	5.8000e-004	0.0187	5.2400e-003	5.5000e-004	5.7900e-003	0.0000	71.0157	71.0157	4.3600e-003	0.0000	71.1246
Worker	0.0314	0.0245	0.2762	8.0000e-004	0.0800	6.6000e-004	0.0807	0.0213	6.1000e-004	0.0219	0.0000	72.2206	72.2206	2.1300e-003	0.0000	72.2737
Total	0.0404	0.3088	0.3533	1.5300e-003	0.0982	1.2400e-003	0.0994	0.0265	1.1600e-003	0.0277	0.0000	143.2363	143.2363	6.4900e-003	0.0000	143.3983

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	0.1652	1.5697	1.4477	2.6000e-003		0.0788	0.0788		0.0738	0.0738	0.0000	224.8712	224.8712	0.0600	0.0000	226.3706
Total	0.1652	1.5697	1.4477	2.6000e-003		0.0788	0.0788		0.0738	0.0738	0.0000	224.8712	224.8712	0.0600	0.0000	226.3706

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3.3 Building Construction - 2021

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	8.9500e-003	0.2843	0.0771	7.3000e-004	0.0148	5.8000e-004	0.0154	4.4200e-003	5.5000e-004	4.9700e-003	0.0000	71.0157	71.0157	4.3600e-003	0.0000	71.1246
Worker	0.0314	0.0245	0.2762	8.0000e-004	0.0620	6.6000e-004	0.0627	0.0168	6.1000e-004	0.0174	0.0000	72.2206	72.2206	2.1300e-003	0.0000	72.2737
Total	0.0404	0.3088	0.3533	1.5300e-003	0.0768	1.2400e-003	0.0780	0.0213	1.1600e-003	0.0224	0.0000	143.2363	143.2363	6.4900e-003	0.0000	143.3983

3.4 Paving - 2021

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	8.4500e-003	0.0867	0.0992	1.5000e-004		4.6500e-003	4.6500e-003		4.2800e-003	4.2800e-003	0.0000	13.2649	13.2649	4.2900e-003	0.0000	13.3722
Paving	3.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0116	0.0867	0.0992	1.5000e-004		4.6500e-003	4.6500e-003		4.2800e-003	4.2800e-003	0.0000	13.2649	13.2649	4.2900e-003	0.0000	13.3722

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3.4 Paving - 2021

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	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886

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	8.4500e-003	0.0867	0.0992	1.5000e-004		4.6500e-003	4.6500e-003		4.2800e-003	4.2800e-003	0.0000	13.2649	13.2649	4.2900e-003	0.0000	13.3722
Paving	3.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0116	0.0867	0.0992	1.5000e-004		4.6500e-003	4.6500e-003		4.2800e-003	4.2800e-003	0.0000	13.2649	13.2649	4.2900e-003	0.0000	13.3722

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3.4 Paving - 2021

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	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886

3.5 Architectural Coating - 2021

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	0.7240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4100e-003	0.0168	0.0200	3.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	2.8086	2.8086	1.9000e-004	0.0000	2.8134
Total	0.7264	0.0168	0.0200	3.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	2.8086	2.8086	1.9000e-004	0.0000	2.8134

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3.5 Architectural Coating - 2021

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	1.0400e-003	8.1000e-004	9.1500e-003	3.0000e-005	2.6500e-003	2.0000e-005	2.6700e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3932	2.3932	7.0000e-005	0.0000	2.3949
Total	1.0400e-003	8.1000e-004	9.1500e-003	3.0000e-005	2.6500e-003	2.0000e-005	2.6700e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3932	2.3932	7.0000e-005	0.0000	2.3949

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	0.7240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4100e-003	0.0168	0.0200	3.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	2.8086	2.8086	1.9000e-004	0.0000	2.8134
Total	0.7264	0.0168	0.0200	3.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	2.8086	2.8086	1.9000e-004	0.0000	2.8134

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3.5 Architectural Coating - 2021

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	1.0400e-003	8.1000e-004	9.1500e-003	3.0000e-005	2.0500e-003	2.0000e-005	2.0800e-003	5.6000e-004	2.0000e-005	5.8000e-004	0.0000	2.3932	2.3932	7.0000e-005	0.0000	2.3949
Total	1.0400e-003	8.1000e-004	9.1500e-003	3.0000e-005	2.0500e-003	2.0000e-005	2.0800e-003	5.6000e-004	2.0000e-005	5.8000e-004	0.0000	2.3932	2.3932	7.0000e-005	0.0000	2.3949

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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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					
Mitigated	1.0199	5.4959	15.5150	0.0551	4.4846	0.0468	4.5314	1.2022	0.0437	1.2458	0.0000	5,083.8630	5,083.8630	0.2652	0.0000	5,090.4923
Unmitigated	1.0199	5.4959	15.5150	0.0551	4.4846	0.0468	4.5314	1.2022	0.0437	1.2458	0.0000	5,083.8630	5,083.8630	0.2652	0.0000	5,090.4923

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	2,668.32	2,668.32	2668.32	11,816,061	11,816,061
Parking Lot	0.00	0.00	0.00		
Total	2,668.32	2,668.32	2,668.32	11,816,061	11,816,061

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	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
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

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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	552.9802	552.9802	0.0228	4.7200e-003	554.9585
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	552.9802	552.9802	0.0228	4.7200e-003	554.9585
NaturalGas Mitigated	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586
NaturalGas Unmitigated	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586

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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					
General Light Industry	2.7693e+006	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586
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
Total		0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586

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					
General Light Industry	2.7693e+006	0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586
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
Total		0.0149	0.1358	0.1140	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.7804	147.7804	2.8300e-003	2.7100e-003	148.6586

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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			
General Light Industry	1.6983e+006	541.1148	0.0223	4.6200e-003	543.0506
Parking Lot	37240	11.8655	4.9000e-004	1.0000e-004	11.9079
Total		552.9802	0.0228	4.7200e-003	554.9585

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.6983e+006	541.1148	0.0223	4.6200e-003	543.0506
Parking Lot	37240	11.8655	4.9000e-004	1.0000e-004	11.9079
Total		552.9802	0.0228	4.7200e-003	554.9585

6.0 Area Detail

6.1 Mitigation Measures Area

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No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111
Unmitigated	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111

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	0.0724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-004	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111
Total	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111

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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	0.0724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-004	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111
Total	0.6326	5.0000e-005	5.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0111

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	158.0135	1.1590	0.0285	195.4734
Unmitigated	158.0135	1.1590	0.0285	195.4734

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	35.3813 / 0	158.0135	1.1590	0.0285	195.4734
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		158.0135	1.1590	0.0285	195.4734

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	35.3813 / 0	158.0135	1.1590	0.0285	195.4734
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		158.0135	1.1590	0.0285	195.4734

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.2557	1.1380	0.0000	47.7052
Unmitigated	38.5115	2.2760	0.0000	95.4105

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	189.72	38.5115	2.2760	0.0000	95.4105
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		38.5115	2.2760	0.0000	95.4105

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	94.86	19.2557	1.1380	0.0000	47.7052
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		19.2557	1.1380	0.0000	47.7052

9.0 Operational Offroad

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