

APPENDIX B

Air Quality/Greenhouse Gases Modeling Data

Cowan Heights Residentail Project - South Coast AQMD Air District, Winter

Cowan Heights Residentail Project
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by the Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Energy Use – None.

Water And Wastewater - 100% Aerobic Assumed

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Fleet Mix - None

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00
tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
2017	7.1172	115.8320	37.7576	0.1901	21.9149	3.2240	25.1389	10.9611	2.9787	13.9397	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13
2018	27.8540	23.7005	18.3740	0.0293	0.1916	1.5031	1.6947	0.0511	1.4130	1.4641	0.0000	2,857.595 1	2,857.5951	0.7204	0.0000	2,873.905 8

Maximum	27.8540	115.8320	37.7576	0.1901	21.9149	3.2240	25.1389	10.9611	2.9787	13.9397	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13
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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	lb/day										lb/day					
2017	7.1172	115.8320	37.7576	0.1901	10.7910	3.2240	14.0150	4.8877	2.9787	7.8664	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13
2018	27.8540	23.7005	18.3740	0.0293	0.1916	1.5031	1.6947	0.0511	1.4130	1.4641	0.0000	2,857.595 1	2,857.5951	0.7204	0.0000	2,873.905 8
Maximum	27.8540	115.8320	37.7576	0.1901	10.7910	3.2240	14.0150	4.8877	2.9787	7.8664	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13

	ROG	NOx	CO	SO2	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	50.32	0.00	41.45	55.15	0.00	39.43	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.183 2	2,053.1832	0.1176		2,056.122 9
Total	8.2432	3.2775	19.8269	0.0500	1.5842	1.7296	3.3138	0.4240	1.7281	2.1521	206.0722	2,673.679 2	2,879.7514	0.7396	0.0181	2,903.618 5

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229
Total	8.2432	3.2775	19.8269	0.0500	1.5842	1.7296	3.3138	0.4240	1.7281	2.1521	206.0722	2,673.6792	2,879.7514	0.7396	0.0181	2,903.6185

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	
3	Grading	Grading	4/12/2017	5/9/2017	5	20	
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230	
5	Paving	Paving	3/28/2018	4/24/2018	5	20	
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	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	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

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
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Grading	6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	36.00	0.00	1,875.00	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

3.2 Demolition - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	0.0246	2.1935	2.2181	3.7300e-003	2.0425	2.0462		3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0200e-003	0.0338	6.6300e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.4864	8.4864	6.3000e-004		8.5021
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

Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223
Total	0.2115	0.1893	1.6653	3.8600e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		384.0537	384.0537	0.0148		384.4244

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	lb/day										lb/day						
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003			0.0000				0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425	0.0000	3,924.2833	3,924.2833	1.0730			3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	9.6000e-003	2.1935	2.2031	1.4500e-003	2.0425	2.0440	0.0000	3,924.2833	3,924.2833	1.0730			3,951.1070

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	lb/day										lb/day						
Hauling	1.0200e-003	0.0338	6.6300e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.4864	8.4864	6.3000e-004			8.5021
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142			375.9223
Total	0.2115	0.1893	1.6653	3.8600e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		384.0537	384.0537	0.0148			384.4244

3.3 Site Preparation - 2017

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	lb/day										lb/day					
Fugitive Dust					18.2359	0.0000	18.2359	9.9564	0.0000	9.9564			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	18.2359	2.8786	21.1145	9.9564	2.6483	12.6047		3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.9197	63.3817	12.4362	0.1478	3.2766	0.3421	3.6188	0.8980	0.3273	1.2253		15,911.9799	15,911.9799	1.1814		15,941.5135
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
Worker	0.2368	0.1749	1.8660	4.2500e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		422.5132	422.5132	0.0160		422.9126
Total	2.1565	63.5567	14.3022	0.1521	3.6790	0.3455	4.0245	1.0047	0.3304	1.3351		16,334.4931	16,334.4931	1.1973		16,364.4261

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	lb/day										lb/day					

Fugitive Dust					7.1120	0.0000	7.1120	3.8830	0.0000	3.8830			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	7.1120	2.8786	9.9906	3.8830	2.6483	6.5313	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.9197	63.3817	12.4362	0.1478	3.2766	0.3421	3.6188	0.8980	0.3273	1.2253		15,911.9799	15,911.9799	1.1814		15,941.5135
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
Worker	0.2368	0.1749	1.8660	4.2500e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		422.5132	422.5132	0.0160		422.9126
Total	2.1565	63.5567	14.3022	0.1521	3.6790	0.3455	4.0245	1.0047	0.3304	1.3351		16,334.4931	16,334.4931	1.1973		16,364.4261

3.4 Grading - 2017

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	lb/day										lb/day					
Fugitive Dust					6.7276	0.0000	6.7276	3.3940	0.0000	3.3940			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352		3,037.9107	3,037.9107	0.9308		3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	6.7276	1.7774	8.5051	3.3940	1.6352	5.0293		3,037.9107	3,037.9107	0.9308		3,061.1809

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	lb/day										lb/day						
Hauling	1.9837	65.4945	12.8508	0.1527	3.3859	0.3535	3.7394	0.9279	0.3382	1.2662		16,442.3792	16,442.3792	1.2207			16,472.8973
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142			375.9223
Total	2.1941	65.6499	14.5094	0.1565	3.7435	0.3565	4.1000	1.0228	0.3410	1.3637		16,817.9465	16,817.9465	1.2349			16,848.8196

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	lb/day										lb/day						
Fugitive Dust					2.6238	0.0000	2.6238	1.3237	0.0000	1.3237			0.0000				0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352	0.0000	3,037.9107	3,037.9107	0.9308			3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	2.6238	1.7774	4.4012	1.3237	1.6352	2.9589	0.0000	3,037.9107	3,037.9107	0.9308			3,061.1809

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
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Category	lb/day										lb/day					
Hauling	1.9837	65.4945	12.8508	0.1527	3.3859	0.3535	3.7394	0.9279	0.3382	1.2662		16,442.3792	16,442.3792	1.2207		16,472.8973
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223
Total	2.1941	65.6499	14.5094	0.1565	3.7435	0.3565	4.1000	1.0228	0.3410	1.3637		16,817.9465	16,817.9465	1.2349		16,848.8196

3.5 Building Construction - 2017

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	0.0101	0.2590	0.0742	5.1000e-004	0.0128	2.2700e-003	0.0151	3.6900e-003	2.1700e-003	5.8500e-003		54.3462	54.3462	4.3000e-003		54.4536
Worker	0.1053	0.0777	0.8293	1.8900e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		187.7836	187.7836	7.1000e-003		187.9612

Total	0.1153	0.3367	0.9035	2.4000e-003	0.1916	3.7500e-003	0.1954	0.0511	3.5300e-003	0.0546		242.1298	242.1298	0.0114		242.4147
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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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	0.0101	0.2590	0.0742	5.1000e-004	0.0128	2.2700e-003	0.0151	3.6900e-003	2.1700e-003	5.8500e-003		54.3462	54.3462	4.3000e-003		54.4536
Worker	0.1053	0.0777	0.8293	1.8900e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		187.7836	187.7836	7.1000e-003		187.9612
Total	0.1153	0.3367	0.9035	2.4000e-003	0.1916	3.7500e-003	0.1954	0.0511	3.5300e-003	0.0546		242.1298	242.1298	0.0114		242.4147

3.5 Building Construction - 2018

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	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.8800e-003	0.2428	0.0670	5.1000e-004	0.0128	1.8000e-003	0.0146	3.6900e-003	1.7200e-003	5.4100e-003		54.1513	54.1513	4.0700e-003		54.2532
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.1026	0.3105	0.7936	2.3400e-003	0.1916	3.2300e-003	0.1949	0.0511	3.0300e-003	0.0542		236.6600	236.6600	0.0103		236.9175

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	lb/day										lb/day					

Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.8800e-003	0.2428	0.0670	5.1000e-004	0.0128	1.8000e-003	0.0146	3.6900e-003	1.7200e-003	5.4100e-003		54.1513	54.1513	4.0700e-003		54.2532
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.1026	0.3105	0.7936	2.3400e-003	0.1916	3.2300e-003	0.1949	0.0511	3.0300e-003	0.0542		236.6600	236.6600	0.0103		236.9175

3.6 Paving - 2018

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432

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	lb/day										lb/day					
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
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
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

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
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Category	lb/day										lb/day					
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
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
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644

3.7 Architectural Coating - 2018

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661

Total	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661
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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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661
Total	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661

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	lb/day										lb/day					
Mitigated	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229
Unmitigated	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

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	lb/day										lb/day					
NaturalGas Mitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
NaturalGas Unmitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Single Family Housing	1880.44	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1.88044	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Mitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Unmitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Cowan Heights Residential Project - South Coast AQMD Air District, Summer

Cowan Heights Residential Project
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by the Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Energy Use – None.

Water And Wastewater - 100% Aerobic Assumed

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Fleet Mix - None.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00
tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	7.0466	114.8650	36.9811	0.1930	21.9149	3.2187	25.1336	10.9611	2.9736	13.9346	0.0000	20,539.7851	20,539.7851	2.3391	0.0000	20,598.2622
2018	27.8521	23.6942	18.4436	0.0294	0.1916	1.5031	1.6947	0.0511	1.4129	1.4640	0.0000	2,871.7630	2,871.7630	0.7208	0.0000	2,888.0773

Maximum	27.8521	114.8650	36.9811	0.1930	21.9149	3.2187	25.1336	10.9611	2.9736	13.9346	0.0000	20,539.78 51	20,539.785 1	2.3391	0.0000	20,598.26 22
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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	lb/day										lb/day					
2017	7.0466	114.8650	36.9811	0.1930	10.7910	3.2187	14.0097	4.8877	2.9736	7.8612	0.0000	20,539.78 51	20,539.785 1	2.3391	0.0000	20,598.26 22
2018	27.8521	23.6942	18.4436	0.0294	0.1916	1.5031	1.6947	0.0511	1.4129	1.4640	0.0000	2,871.763 0	2,871.7630	0.7208	0.0000	2,888.077 3
Maximum	27.8521	114.8650	36.9811	0.1930	10.7910	3.2187	14.0097	4.8877	2.9736	7.8612	0.0000	20,539.78 51	20,539.785 1	2.3391	0.0000	20,598.26 22

	ROG	NOx	CO	SO2	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	50.32	0.00	41.46	55.15	0.00	39.44	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.612 8	2,169.6128	0.1183		2,172.570 9
Total	8.2655	3.2075	20.2690	0.0512	1.5842	1.7294	3.3136	0.4240	1.7280	2.1519	206.0722	2,790.108 8	2,996.1810	0.7404	0.0181	3,020.066 5

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709
Total	8.2655	3.2075	20.2690	0.0512	1.5842	1.7294	3.3136	0.4240	1.7280	2.1519	206.0722	2,790.1088	2,996.1810	0.7404	0.0181	3,020.0665

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	
3	Grading	Grading	4/12/2017	5/9/2017	5	20	
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230	
5	Paving	Paving	3/28/2018	4/24/2018	5	20	
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	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	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

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
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Grading	6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	36.00	0.00	1,875.00	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

3.2 Demolition - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	0.0246	2.1935	2.2181	3.7300e-003	2.0425	2.0462		3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0000e-003	0.0333	6.1200e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.6364	8.6364	6.0000e-004		8.6515
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

Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	0.1947	0.1752	1.8299	4.1200e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		410.0288	410.0288	0.0157		410.4219

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	lb/day										lb/day						
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003			0.0000				0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425	0.0000	3,924.2833	3,924.2833	1.0730			3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	9.6000e-003	2.1935	2.2031	1.4500e-003	2.0425	2.0440	0.0000	3,924.2833	3,924.2833	1.0730			3,951.1070

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	lb/day										lb/day						
Hauling	1.0000e-003	0.0333	6.1200e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.6364	8.6364	6.0000e-004			8.6515
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151			401.7704
Total	0.1947	0.1752	1.8299	4.1200e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		410.0288	410.0288	0.0157			410.4219

3.3 Site Preparation - 2017

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	lb/day										lb/day					
Fugitive Dust					18.2359	0.0000	18.2359	9.9564	0.0000	9.9564			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	18.2359	2.8786	21.1145	9.9564	2.6483	12.6047		3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.8679	62.4300	11.4740	0.1504	3.2766	0.3368	3.6134	0.8980	0.3222	1.2202		16,193.2686	16,193.2686	1.1287		16,221.4853
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
Worker	0.2179	0.1596	2.0518	4.5400e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		451.5665	451.5665	0.0170		451.9917
Total	2.0858	62.5896	13.5257	0.1550	3.6790	0.3401	4.0191	1.0047	0.3253	1.3300		16,644.8351	16,644.8351	1.1457		16,673.4770

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	lb/day										lb/day					

Fugitive Dust					7.1120	0.0000	7.1120	3.8830	0.0000	3.8830			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	7.1120	2.8786	9.9906	3.8830	2.6483	6.5313	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.8679	62.4300	11.4740	0.1504	3.2766	0.3368	3.6134	0.8980	0.3222	1.2202		16,193.2686	16,193.2686	1.1287		16,221.4853
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
Worker	0.2179	0.1596	2.0518	4.5400e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		451.5665	451.5665	0.0170		451.9917
Total	2.0858	62.5896	13.5257	0.1550	3.6790	0.3401	4.0191	1.0047	0.3253	1.3300		16,644.8351	16,644.8351	1.1457		16,673.4770

3.4 Grading - 2017

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	lb/day										lb/day					
Fugitive Dust					6.7276	0.0000	6.7276	3.3940	0.0000	3.3940			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352		3,037.9107	3,037.9107	0.9308		3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	6.7276	1.7774	8.5051	3.3940	1.6352	5.0293		3,037.9107	3,037.9107	0.9308		3,061.1809

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	lb/day										lb/day					
Hauling	1.9301	64.5110	11.8564	0.1554	3.3859	0.3480	3.7339	0.9279	0.3330	1.2609		16,733.0443	16,733.0443	1.1663		16,762.2015
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	2.1239	64.6529	13.6802	0.1595	3.7435	0.3510	4.0945	1.0228	0.3357	1.3585		17,134.4367	17,134.4367	1.1814		17,163.9719

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	lb/day										lb/day					
Fugitive Dust					2.6238	0.0000	2.6238	1.3237	0.0000	1.3237			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352	0.0000	3,037.9107	3,037.9107	0.9308		3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	2.6238	1.7774	4.4012	1.3237	1.6352	2.9589	0.0000	3,037.9107	3,037.9107	0.9308		3,061.1809

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
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Category	lb/day										lb/day					
	Hauling	1.9301	64.5110	11.8564	0.1554	3.3859	0.3480	3.7339	0.9279	0.3330	1.2609		16,733.0443	16,733.0443	1.1663	
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	2.1239	64.6529	13.6802	0.1595	3.7435	0.3510	4.0945	1.0228	0.3357	1.3585		17,134.4367	17,134.4367	1.1814		17,163.9719

3.5 Building Construction - 2017

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	9.6800e-003	0.2582	0.0671	5.3000e-004	0.0128	2.2300e-003	0.0150	3.6900e-003	2.1400e-003	5.8200e-003		55.8892	55.8892	4.0000e-003		55.9893
Worker	0.0969	0.0709	0.9119	2.0200e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		200.6962	200.6962	7.5600e-003		200.8852

Total	0.1065	0.3291	0.9790	2.5500e-003	0.1916	3.7100e-003	0.1954	0.0511	3.5000e-003	0.0546		256.5854	256.5854	0.0116		256.8745
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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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	9.6800e-003	0.2582	0.0671	5.3000e-004	0.0128	2.2300e-003	0.0150	3.6900e-003	2.1400e-003	5.8200e-003		55.8892	55.8892	4.0000e-003		55.9893
Worker	0.0969	0.0709	0.9119	2.0200e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		200.6962	200.6962	7.5600e-003		200.8852
Total	0.1065	0.3291	0.9790	2.5500e-003	0.1916	3.7100e-003	0.1954	0.0511	3.5000e-003	0.0546		256.5854	256.5854	0.0116		256.8745

3.5 Building Construction - 2018

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	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2424	0.0604	5.2000e-004	0.0128	1.7700e-003	0.0146	3.6900e-003	1.6900e-003	5.3800e-003		55.7316	55.7316	3.7900e-003		55.8264
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626
Total	0.0947	0.3042	0.8632	2.4800e-003	0.1916	3.2000e-003	0.1948	0.0511	3.0000e-003	0.0541		250.8279	250.8279	0.0104		251.0890

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	lb/day										lb/day					

Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2424	0.0604	5.2000e-004	0.0128	1.7700e-003	0.0146	3.6900e-003	1.6900e-003	5.3800e-003		55.7316	55.7316	3.7900e-003		55.8264
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626
Total	0.0947	0.3042	0.8632	2.4800e-003	0.1916	3.2000e-003	0.1948	0.0511	3.0000e-003	0.0541		250.8279	250.8279	0.0104		251.0890

3.6 Paving - 2018

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432

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	lb/day										lb/day					
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
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
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626
Total	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

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
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Category	lb/day										lb/day				
	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
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
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003	195.2626
Total	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003	195.2626

3.7 Architectural Coating - 2018

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156

Total	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156
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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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156
Total	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156

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	lb/day										lb/day					
Mitigated	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709
Unmitigated	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

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	lb/day										lb/day					
NaturalGas Mitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
NaturalGas Unmitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Single Family Housing	1880.44	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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
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Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1.88044	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Mitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Unmitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Cowan Heights Residentail Project - South Coast AQMD Air District, Annual

Cowan Heights Residentail Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors - Vehicle Emission Factors – None.

Energy Use – None.

Water And Wastewater - 100% Aerobic Assumed

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Fleet Mix - None

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00
tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	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					
2017	0.4010	4.2810	2.3494	5.7300e-003	0.2330	0.2099	0.4428	0.1040	0.1964	0.3004	0.0000	534.1696	534.1696	0.0906	0.0000	536.4344
2018	0.3818	0.9311	0.7460	1.1900e-003	8.0300e-003	0.0577	0.0657	2.1400e-003	0.0541	0.0563	0.0000	105.9468	105.9468	0.0251	0.0000	106.5753

Maximum	0.4010	4.2810	2.3494	5.7300e-003	0.2330	0.2099	0.4428	0.1040	0.1964	0.3004	0.0000	534.1696	534.1696	0.0906	0.0000	536.4344
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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					
2017	0.4010	4.2810	2.3493	5.7300e-003	0.1362	0.2099	0.3460	0.0529	0.1964	0.2493	0.0000	534.1692	534.1692	0.0906	0.0000	536.4341
2018	0.3818	0.9311	0.7460	1.1900e-003	8.0300e-003	0.0577	0.0657	2.1400e-003	0.0541	0.0563	0.0000	105.9467	105.9467	0.0251	0.0000	106.5752
Maximum	0.4010	4.2810	2.3493	5.7300e-003	0.1362	0.2099	0.3460	0.0529	0.1964	0.2493	0.0000	534.1692	534.1692	0.0906	0.0000	536.4341

	ROG	NOx	CO	SO2	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	40.17	0.00	19.04	48.17	0.00	14.33	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2017	5-31-2017	2.3571	2.3571
2	6-1-2017	8-31-2017	0.9892	0.9892
3	9-1-2017	11-30-2017	0.9788	0.9788
4	12-1-2017	2-28-2018	0.8915	0.8915
5	3-1-2018	5-31-2018	0.7472	0.7472
		Highest	2.3571	2.3571

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
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Category	tons/yr									MT/yr						
	Area	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004
Energy	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	96.7458	96.7458	3.1800e-003	1.1900e-003	97.1786
Mobile	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176
Waste						0.0000	0.0000		0.0000	0.0000	5.2433	0.0000	5.2433	0.3099	0.0000	12.9900
Water						0.0000	0.0000		0.0000	0.0000	0.5071	9.1456	9.6528	2.1200e-003	1.1800e-003	10.0578
Total	0.5146	0.5041	1.5694	4.1300e-003	0.2699	0.0291	0.2990	0.0723	0.0289	0.1012	8.0872	438.6094	446.6966	0.3409	2.5300e-003	455.9725

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr									MT/yr						
Area	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287
Energy	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	96.7458	96.7458	3.1800e-003	1.1900e-003	97.1786
Mobile	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176
Waste						0.0000	0.0000		0.0000	0.0000	5.2433	0.0000	5.2433	0.3099	0.0000	12.9900
Water						0.0000	0.0000		0.0000	0.0000	0.5071	9.1456	9.6528	2.1200e-003	1.1800e-003	10.0578
Total	0.5146	0.5041	1.5694	4.1300e-003	0.2699	0.0291	0.2990	0.0723	0.0289	0.1012	8.0872	438.6094	446.6966	0.3409	2.5300e-003	455.9725

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	
3	Grading	Grading	4/12/2017	5/9/2017	5	20	
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230	
5	Paving	Paving	3/28/2018	4/24/2018	5	20	
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	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	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

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
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	36.00	0.00	1,875.00	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

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5000e-004	0.0000	2.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.4275	0.2301	3.9000e-004		0.0219	0.0219		0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438

Total	0.0410	0.4275	0.2301	3.9000e-004	2.5000e-004	0.0219	0.0222	4.0000e-005	0.0204	0.0205	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.4000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0778	0.0778	1.0000e-005	0.0000	0.0779
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	1.9200e-003	1.9400e-003	0.0171	4.0000e-005	3.5300e-003	3.0000e-005	3.5600e-003	9.3000e-004	3.0000e-005	9.7000e-004	0.0000	3.5430	3.5430	1.4000e-004	0.0000	3.5464

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					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.4275	0.2301	3.9000e-004		0.0219	0.0219		0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	0.0410	0.4275	0.2301	3.9000e-004	1.0000e-004	0.0219	0.0220	1.0000e-005	0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.4000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0778	0.0778	1.0000e-005	0.0000	0.0779
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	1.9200e-003	1.9400e-003	0.0171	4.0000e-005	3.5300e-003	3.0000e-005	3.5600e-003	9.3000e-004	3.0000e-005	9.7000e-004	0.0000	3.5430	3.5430	1.4000e-004	0.0000	3.5464

3.3 Site Preparation - 2017

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					0.0912	0.0000	0.0912	0.0498	0.0000	0.0498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	0.0248	0.2614	0.1173	1.9000e-004	0.0912	0.0144	0.1056	0.0498	0.0132	0.0630	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

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	9.4500e-003	0.3226	0.0595	7.5000e-004	0.0161	1.7000e-003	0.0178	4.4300e-003	1.6200e-003	6.0500e-003	0.0000	72.9156	72.9156	5.2300e-003	0.0000	73.0462
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	1.0800e-003	9.0000e-004	9.5800e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9492	1.9492	7.0000e-005	0.0000	1.9510
Total	0.0105	0.3235	0.0691	7.7000e-004	0.0181	1.7200e-003	0.0198	4.9500e-003	1.6400e-003	6.5900e-003	0.0000	74.8647	74.8647	5.3000e-003	0.0000	74.9972

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					0.0356	0.0000	0.0356	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	0.0248	0.2614	0.1173	1.9000e-004	0.0356	0.0144	0.0500	0.0194	0.0132	0.0327	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

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	9.4500e-003	0.3226	0.0595	7.5000e-004	0.0161	1.7000e-003	0.0178	4.4300e-003	1.6200e-003	6.0500e-003	0.0000	72.9156	72.9156	5.2300e-003	0.0000	73.0462
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	1.0800e-003	9.0000e-004	9.5800e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9492	1.9492	7.0000e-005	0.0000	1.9510
Total	0.0105	0.3235	0.0691	7.7000e-004	0.0181	1.7200e-003	0.0198	4.9500e-003	1.6400e-003	6.5900e-003	0.0000	74.8647	74.8647	5.3000e-003	0.0000	74.9972

3.4 Grading - 2017

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					0.0673	0.0000	0.0673	0.0339	0.0000	0.0339	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	0.0307	0.3389	0.1710	3.0000e-004	0.0673	0.0178	0.0851	0.0339	0.0164	0.0503	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706

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	0.0195	0.6667	0.1229	1.5400e-003	0.0333	3.5000e-003	0.0368	9.1500e-003	3.3500e-003	0.0125	0.0000	150.6921	150.6921	0.0108	0.0000	150.9621
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	0.0214	0.6683	0.1400	1.5800e-003	0.0368	3.5300e-003	0.0404	0.0101	3.3800e-003	0.0135	0.0000	154.1573	154.1573	0.0109	0.0000	154.4306

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					0.0262	0.0000	0.0262	0.0132	0.0000	0.0132	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	0.0307	0.3389	0.1710	3.0000e-004	0.0262	0.0178	0.0440	0.0132	0.0164	0.0296	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705

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	0.0195	0.6667	0.1229	1.5400e-003	0.0333	3.5000e-003	0.0368	9.1500e-003	3.3500e-003	0.0125	0.0000	150.6921	150.6921	0.0108	0.0000	150.9621
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	0.0214	0.6683	0.1400	1.5800e-003	0.0368	3.5300e-003	0.0404	0.0101	3.3800e-003	0.0135	0.0000	154.1573	154.1573	0.0109	0.0000	154.4306

3.5 Building Construction - 2017

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	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0140	202.0140	0.0498	0.0000	203.2582

Total	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0140	202.0140	0.0498	0.0000	203.2582
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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	8.3000e-004	0.0222	5.9400e-003	4.0000e-005	1.0600e-003	1.9000e-004	1.2500e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.2096	4.2096	3.2000e-004	0.0000	4.2175
Worker	8.0400e-003	6.7100e-003	0.0715	1.6000e-004	0.0148	1.2000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	14.5538	14.5538	5.5000e-004	0.0000	14.5676
Total	8.8700e-003	0.0289	0.0775	2.0000e-004	0.0158	3.1000e-004	0.0161	4.2300e-003	2.9000e-004	4.5200e-003	0.0000	18.7634	18.7634	8.7000e-004	0.0000	18.7850

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	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0137	202.0137	0.0498	0.0000	203.2580
Total	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0137	202.0137	0.0498	0.0000	203.2580

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	8.3000e-004	0.0222	5.9400e-003	4.0000e-005	1.0600e-003	1.9000e-004	1.2500e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.2096	4.2096	3.2000e-004	0.0000	4.2175
Worker	8.0400e-003	6.7100e-003	0.0715	1.6000e-004	0.0148	1.2000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	14.5538	14.5538	5.5000e-004	0.0000	14.5676
Total	8.8700e-003	0.0289	0.0775	2.0000e-004	0.0158	3.1000e-004	0.0161	4.2300e-003	2.9000e-004	4.5200e-003	0.0000	18.7634	18.7634	8.7000e-004	0.0000	18.7850

3.5 Building Construction - 2018

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	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1593
Total	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1593

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	7.6700e-003	1.9700e-003	2.0000e-005	3.9000e-004	6.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.7000e-004	0.0000	1.5487	1.5487	1.1000e-004	0.0000	1.5514
Worker	2.6400e-003	2.1600e-003	0.0232	6.0000e-005	5.4400e-003	4.0000e-005	5.4900e-003	1.4500e-003	4.0000e-005	1.4900e-003	0.0000	5.2204	5.2204	1.8000e-004	0.0000	5.2249
Total	2.9100e-003	9.8300e-003	0.0251	8.0000e-005	5.8300e-003	1.0000e-004	5.9400e-003	1.5600e-003	9.0000e-005	1.6600e-003	0.0000	6.7691	6.7691	2.9000e-004	0.0000	6.7763

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	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1592
Total	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1592

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	7.6700e-003	1.9700e-003	2.0000e-005	3.9000e-004	6.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.7000e-004	0.0000	1.5487	1.5487	1.1000e-004	0.0000	1.5514
Worker	2.6400e-003	2.1600e-003	0.0232	6.0000e-005	5.4400e-003	4.0000e-005	5.4900e-003	1.4500e-003	4.0000e-005	1.4900e-003	0.0000	5.2204	5.2204	1.8000e-004	0.0000	5.2249
Total	2.9100e-003	9.8300e-003	0.0251	8.0000e-005	5.8300e-003	1.0000e-004	5.9400e-003	1.5600e-003	9.0000e-005	1.6600e-003	0.0000	6.7691	6.7691	2.9000e-004	0.0000	6.7763

3.6 Paving - 2018

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	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

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	8.5000e-004	7.0000e-004	7.4700e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.6840	1.6840	6.0000e-005	0.0000	1.6854
Total	8.5000e-004	7.0000e-004	7.4700e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.6840	1.6840	6.0000e-005	0.0000	1.6854

Mitigated Construction On-Site

Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.2783	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

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	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214
Total	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214

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	0.2753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.2783	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

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	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214
Total	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214

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	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176
Unmitigated	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	60.1191	60.1191	2.4800e-003	5.1000e-004	60.3342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	60.1191	60.1191	2.4800e-003	5.1000e-004	60.3342
NaturalGas Mitigated	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444
NaturalGas Unmitigated	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas 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					
Single Family Housing	686360	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444
Total		3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444

Mitigated

	Natural Gas 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					
Single Family Housing	686360	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444
Total		3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	188685	60.1191	2.4800e-003	5.1000e-004	60.3342

Total		60.1191	2.4800e-003	5.1000e-004	60.3342
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Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	188685	60.1191	2.4800e-003	5.1000e-004	60.3342
Total		60.1191	2.4800e-003	5.1000e-004	60.3342

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	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287
Unmitigated	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

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	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0721	5.7100e-003	0.1399	3.6000e-004		0.0210	0.0210		0.0210	0.0210	2.3368	4.4906	6.8274	6.9700e-003	1.6000e-004	7.0489
Landscaping	7.0400e-003	2.6500e-003	0.2285	1.0000e-005		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	0.3706	0.3706	3.7000e-004	0.0000	0.3798
Total	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

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	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0721	5.7100e-003	0.1399	3.6000e-004		0.0210	0.0210		0.0210	0.0210	2.3368	4.4906	6.8274	6.9700e-003	1.6000e-004	7.0489
Landscaping	7.0400e-003	2.6500e-003	0.2285	1.0000e-005		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	0.3706	0.3706	3.7000e-004	0.0000	0.3798
Total	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6528	2.1200e-003	1.1800e-003	10.0578
Unmitigated	9.6528	2.1200e-003	1.1800e-003	10.0578

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.43339 / 0.903658	9.6528	2.1200e-003	1.1800e-003	10.0578
Total		9.6528	2.1200e-003	1.1800e-003	10.0578

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	MT/yr			
Single Family Housing	1.43339 / 0.903658	9.6528	2.1200e-003	1.1800e-003	10.0578
Total		9.6528	2.1200e-003	1.1800e-003	10.0578

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2433	0.3099	0.0000	12.9900
Unmitigated	5.2433	0.3099	0.0000	12.9900

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	25.83	5.2433	0.3099	0.0000	12.9900

Total		5.2433	0.3099	0.0000	12.9900
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Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	25.83	5.2433	0.3099	0.0000	12.9900
Total		5.2433	0.3099	0.0000	12.9900

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



Cowan Heights Residentail Project - South Coast AQMD Air District, Winter

Cowan Heights Residentail Project
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by the Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Energy Use – None.

Water And Wastewater - 100% Aerobic Assumed

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00

tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	7.1172	115.8320	37.7576	0.1901	21.9149	3.2240	25.1389	10.9611	2.9787	13.9397	0.0000	20,229.4431	20,229.4431	2.3907	0.0000	20,289.2113
2018	27.8540	23.7005	18.3740	0.0293	0.3577	1.5031	1.6947	0.0949	1.4130	1.4641	0.0000	2,857.5951	2,857.5951	0.7266	0.0000	2,873.9058
Maximum	27.8540	115.8320	37.7576	0.1901	21.9149	3.2240	25.1389	10.9611	2.9787	13.9397	0.0000	20,229.4431	20,229.4431	2.3907	0.0000	20,289.2113

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	lb/day										lb/day					
2017	3.0876	82.6223	37.2622	0.1901	10.7910	1.2916	12.0826	4.8877	1.2766	6.1642	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13
2018	27.6148	14.5281	19.0295	0.0293	0.3577	0.9181	1.1097	0.0949	0.9179	0.9690	0.0000	2,857.595 1	2,857.5951	0.7266	0.0000	2,873.905 8
Maximum	27.6148	82.6223	37.2622	0.1901	10.7910	1.2916	12.0826	4.8877	1.2766	6.1642	0.0000	20,229.44 31	20,229.443 1	2.3907	0.0000	20,289.21 13

	ROG	NOx	CO	SO2	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	12.21	30.37	-0.29	0.00	49.94	53.25	50.84	54.93	50.03	53.69	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.183 2	2,053.1832	0.1176		2,056.122 9
Total	8.2432	3.2775	19.8269	0.0500	1.5842	1.7296	3.3138	0.4240	1.7281	2.1521	206.0722	2,673.679 2	2,879.7514	0.7396	0.0181	2,903.618 5

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
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Category	lb/day										lb/day					
	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total
Area	7.7144	0.4777	13.0160	0.0286	1.6905	1.6905	1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531		
Energy	0.0203	0.1733	0.0737	1.1100e-003	0.0140	0.0140	0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425		
Mobile	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229
Total	8.2432	3.2775	19.8269	0.0500	1.5842	1.7296	3.3138	0.4240	1.7281	2.1521	206.0722	2,673.6792	2,879.7514	0.7396	0.0181	2,903.6185

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	
3	Grading	Grading	4/12/2017	5/9/2017	5	20	
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230	
5	Paving	Paving	3/28/2018	4/24/2018	5	20	
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

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	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	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	7.00	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	6.00	78	0.48

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	6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	36.00	0.00	1,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	0.0246	2.1935	2.2181	3.7300e-003	2.0425	2.0462		3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0200e-003	0.0338	6.6300e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.4864	8.4864	6.3000e-004		8.5021
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223
Total	0.2115	0.1893	1.6653	3.8600e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		384.0537	384.0537	0.0148		384.4244

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	lb/day										lb/day					
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070
Total	0.9246	18.3130	24.6739	0.0388	9.6000e-003	0.8627	0.8723	1.4500e-003	0.8627	0.8642	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0200e-003	0.0338	6.6300e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.4864	8.4864	6.3000e-004		8.5021
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223
Total	0.2115	0.1893	1.6653	3.8600e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		384.0537	384.0537	0.0148		384.4244

3.3 Site Preparation - 2017

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	lb/day										lb/day					

Fugitive Dust					18.2359	0.0000	18.2359	9.9564	0.0000	9.9564			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	18.2359	2.8786	21.1145	9.9564	2.6483	12.6047		3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.9197	63.3817	12.4362	0.1478	3.2766	0.3421	3.6188	0.8980	0.3273	1.2253		15,911.9799	15,911.9799	1.1814		15,941.5135
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
Worker	0.2368	0.1749	1.8660	4.2500e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		422.5132	422.5132	0.0160		422.9126
Total	2.1565	63.5567	14.3022	0.1521	3.6790	0.3455	4.0245	1.0047	0.3304	1.3351		16,334.4931	16,334.4931	1.1973		16,364.4261

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	lb/day										lb/day					
Fugitive Dust					7.1120	0.0000	7.1120	3.8830	0.0000	3.8830			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	0.9312	19.0656	22.9600	0.0380	7.1120	0.9462	8.0582	3.8830	0.9462	4.8292	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.9197	63.3817	12.4362	0.1478	3.2766	0.3421	3.6188	0.8980	0.3273	1.2253		15,911.9799	15,911.9799	1.1814		15,941.5135
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
Worker	0.2368	0.1749	1.8660	4.2500e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		422.5132	422.5132	0.0160		422.9126
Total	2.1565	63.5567	14.3022	0.1521	3.6790	0.3455	4.0245	1.0047	0.3304	1.3351		16,334.4931	16,334.4931	1.1973		16,364.4261

3.4 Grading - 2017

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	lb/day										lb/day					
Fugitive Dust					6.7276	0.0000	6.7276	3.3940	0.0000	3.3940			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352		3,037.9107	3,037.9107	0.9308		3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	6.7276	1.7774	8.5051	3.3940	1.6352	5.0293		3,037.9107	3,037.9107	0.9308		3,061.1809

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
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Category	lb/day										lb/day					
	Hauling	1.9837	65.4945	12.8508	0.1527	3.3859	0.3535	3.7394	0.9279	0.3382	1.2662		16,442.3792	16,442.3792	1.2207	
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223
Total	2.1941	65.6499	14.5094	0.1565	3.7435	0.3565	4.1000	1.0228	0.3410	1.3637		16,817.9465	16,817.9465	1.2349		16,848.8196

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	lb/day										lb/day					
Fugitive Dust					2.6238	0.0000	2.6238	1.3237	0.0000	1.3237			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.7555	0.7555		0.7555	0.7555	0.0000	3,037.9107	3,037.9107	0.9308		3,061.1809
Total	0.7263	14.8397	18.9906	0.0297	2.6238	0.7555	3.3793	1.3237	0.7555	2.0792	0.0000	3,037.9107	3,037.9107	0.9308		3,061.1809

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	lb/day										lb/day					
Hauling	1.9837	65.4945	12.8508	0.1527	3.3859	0.3535	3.7394	0.9279	0.3382	1.2662		16,442.3792	16,442.3792	1.2207		16,472.8973
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
Worker	0.2105	0.1555	1.6586	3.7800e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		375.5673	375.5673	0.0142		375.9223

Total	2.1941	65.6499	14.5094	0.1565	3.7435	0.3565	4.1000	1.0228	0.3410	1.3637		16,817.94 65	16,817.946 5	1.2349		16,848.81 96
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3.5 Building Construction - 2017

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.979 7	2,650.9797	0.6531		2,667.307 8
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.979 7	2,650.9797	0.6531		2,667.307 8

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	lb/day										lb/day					
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
Vendor	0.0101	0.2590	0.0742	5.1000e-004	0.0128	2.2700e-003	0.0151	3.6900e-003	2.1700e-003	5.8500e-003		54.3462	54.3462	4.3000e-003		54.4536
Worker	0.1053	0.0777	0.8293	1.8900e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		187.7836	187.7836	7.1000e-003		187.9612
Total	0.1153	0.3367	0.9035	2.4000e-003	0.1916	3.7500e-003	0.1954	0.0511	3.5300e-003	0.0546		242.1298	242.1298	0.0114		242.4147

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	lb/day										lb/day					
Off-Road	1.0689	14.2764	18.2896	0.0269		0.9291	0.9291		0.9291	0.9291	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	1.0689	14.2764	18.2896	0.0269		0.9291	0.9291		0.9291	0.9291	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	0.0101	0.2590	0.0742	5.1000e-004	0.0128	2.2700e-003	0.0151	3.6900e-003	2.1700e-003	5.8500e-003		54.3462	54.3462	4.3000e-003		54.4536
Worker	0.1053	0.0777	0.8293	1.8900e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		187.7836	187.7836	7.1000e-003		187.9612
Total	0.1153	0.3367	0.9035	2.4000e-003	0.1916	3.7500e-003	0.1954	0.0511	3.5300e-003	0.0546		242.1298	242.1298	0.0114		242.4147

3.5 Building Construction - 2018

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	lb/day										lb/day					

Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.8800e-003	0.2428	0.0670	5.1000e-004	0.0128	1.8000e-003	0.0146	3.6900e-003	1.7200e-003	5.4100e-003		54.1513	54.1513	4.0700e-003		54.2532
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.1026	0.3105	0.7936	2.3400e-003	0.1916	3.2300e-003	0.1949	0.0511	3.0300e-003	0.0542		236.6600	236.6600	0.0103		236.9175

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	lb/day										lb/day					
Off-Road	1.0098	14.2177	18.2359	0.0269		0.9149	0.9149		0.9149	0.9149	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	1.0098	14.2177	18.2359	0.0269		0.9149	0.9149		0.9149	0.9149	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.8800e-003	0.2428	0.0670	5.1000e-004	0.0128	1.8000e-003	0.0146	3.6900e-003	1.7200e-003	5.4100e-003		54.1513	54.1513	4.0700e-003		54.2532
Worker	0.0937	0.0677	0.7266	1.8300e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		182.5087	182.5087	6.2300e-003		182.6644
Total	0.1026	0.3105	0.7936	2.3400e-003	0.1916	3.2300e-003	0.1949	0.0511	3.0300e-003	0.0542		236.6600	236.6600	0.0103		236.9175

3.6 Paving - 2018

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432

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
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Category	lb/day										lb/day					
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
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
Worker	0.1875	0.1354	1.4531	3.6700e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		365.0173	365.0173	0.0125		365.3287
Total	0.1875	0.1354	1.4531	3.6700e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		365.0173	365.0173	0.0125		365.3287

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	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

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	lb/day										lb/day					
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
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
Worker	0.1875	0.1354	1.4531	3.6700e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		365.0173	365.0173	0.0125		365.3287

Total	0.1875	0.1354	1.4531	3.6700e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		365.0173	365.0173	0.0125		365.3287
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3.7 Architectural Coating - 2018

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661
Total	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.5913	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661
Total	0.0234	0.0169	0.1816	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.6272	45.6272	1.5600e-003		45.6661

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	lb/day										lb/day					
Mitigated	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229
Unmitigated	0.5085	2.6265	6.7371	0.0202	1.5842	0.0250	1.6092	0.4240	0.0236	0.4475		2,053.1832	2,053.1832	0.1176		2,056.1229

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

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	lb/day										lb/day					
NaturalGas Mitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
NaturalGas Unmitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Single Family Housing	1880.44	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					

Single Family Housing	1.88044	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Mitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Unmitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Cowan Heights Residential Project - South Coast AQMD Air District, Summer

Cowan Heights Residential Project
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by the Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Energy Use – None.

Water And Wastewater - 100% Aerobic Assumed

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00

tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	7.0466	114.8650	36.9811	0.1930	21.9149	3.2187	25.1336	10.9611	2.9736	13.9346	0.0000	20,539.7851	20,539.7851	2.3391	0.0000	20,598.2622
2018	27.8521	23.6942	18.4436	0.0294	0.3577	1.5031	1.6947	0.0949	1.4129	1.4640	0.0000	2,871.7630	2,871.7630	0.7275	0.0000	2,888.0773
Maximum	27.8521	114.8650	36.9811	0.1930	21.9149	3.2187	25.1336	10.9611	2.9736	13.9346	0.0000	20,539.7851	20,539.7851	2.3391	0.0000	20,598.2622

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	lb/day										lb/day					
2017	3.0170	81.6552	36.4858	0.1930	10.7910	1.2863	12.0773	4.8877	1.2714	6.1591	0.0000	20,539.7851	20,539.7851	2.3391	0.0000	20,598.2622
2018	27.6129	14.5218	19.0991	0.0294	0.3577	0.9181	1.1097	0.0949	0.9179	0.9690	0.0000	2,871.7630	2,871.7630	0.7275	0.0000	2,888.0773
Maximum	27.6129	81.6552	36.4858	0.1930	10.7910	1.2863	12.0773	4.8877	1.2714	6.1591	0.0000	20,539.7851	20,539.7851	2.3391	0.0000	20,598.2622

	ROG	NOx	CO	SO2	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	12.23	30.59	-0.29	0.00	49.94	53.32	50.85	54.93	50.09	53.71	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Energy	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Mobile	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709
Total	8.2655	3.2075	20.2690	0.0512	1.5842	1.7294	3.3136	0.4240	1.7280	2.1519	206.0722	2,790.1088	2,996.1810	0.7404	0.0181	3,020.0665

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
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Category	lb/day										lb/day					
	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total	Area	Energy	Mobile	Total
Area	7.7144	0.4777	13.0160	0.0286	1.6905	1.6905	1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531		
Energy	0.0203	0.1733	0.0737	1.1100e-003	0.0140	0.0140	0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425		
Mobile	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183	2,172.5709	
Total	8.2655	3.2075	20.2690	0.0512	1.5842	1.7294	3.3136	0.4240	1.7280	2.1519	206.0722	2,790.1088	2,996.1810	0.7404	0.0181	3,020.0665

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	
3	Grading	Grading	4/12/2017	5/9/2017	5	20	
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230	
5	Paving	Paving	3/28/2018	4/24/2018	5	20	
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

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	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	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	7.00	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	6.00	78	0.48

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	6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	36.00	0.00	1,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	4.1031	42.7475	23.0122	0.0388	0.0246	2.1935	2.2181	3.7300e-003	2.0425	2.0462		3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0000e-003	0.0333	6.1200e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.6364	8.6364	6.0000e-004		8.6515
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	0.1947	0.1752	1.8299	4.1200e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		410.0288	410.0288	0.0157		410.4219

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	lb/day										lb/day					
Fugitive Dust					9.6000e-003	0.0000	9.6000e-003	1.4500e-003	0.0000	1.4500e-003			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070
Total	0.9246	18.3130	24.6739	0.0388	9.6000e-003	0.8627	0.8723	1.4500e-003	0.8627	0.8642	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070

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	lb/day										lb/day					
Hauling	1.0000e-003	0.0333	6.1200e-003	8.0000e-005	1.7500e-003	1.8000e-004	1.9300e-003	4.8000e-004	1.7000e-004	6.5000e-004		8.6364	8.6364	6.0000e-004		8.6515
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	0.1947	0.1752	1.8299	4.1200e-003	0.3594	3.1300e-003	0.3626	0.0953	2.8900e-003	0.0982		410.0288	410.0288	0.0157		410.4219

3.3 Site Preparation - 2017

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	lb/day										lb/day					

Fugitive Dust					18.2359	0.0000	18.2359	9.9564	0.0000	9.9564			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	18.2359	2.8786	21.1145	9.9564	2.6483	12.6047		3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day					
Hauling	1.8679	62.4300	11.4740	0.1504	3.2766	0.3368	3.6134	0.8980	0.3222	1.2202		16,193.2686	16,193.2686	1.1287		16,221.4853
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
Worker	0.2179	0.1596	2.0518	4.5400e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		451.5665	451.5665	0.0170		451.9917
Total	2.0858	62.5896	13.5257	0.1550	3.6790	0.3401	4.0191	1.0047	0.3253	1.3300		16,644.8351	16,644.8351	1.1457		16,673.4770

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	lb/day										lb/day					
Fugitive Dust					7.1120	0.0000	7.1120	3.8830	0.0000	3.8830			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	0.9312	19.0656	22.9600	0.0380	7.1120	0.9462	8.0582	3.8830	0.9462	4.8292	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

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	lb/day										lb/day						
Hauling	1.8679	62.4300	11.4740	0.1504	3.2766	0.3368	3.6134	0.8980	0.3222	1.2202		16,193.2686	16,193.2686	1.1287			16,221.4853
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
Worker	0.2179	0.1596	2.0518	4.5400e-003	0.4024	3.3200e-003	0.4057	0.1067	3.0600e-003	0.1098		451.5665	451.5665	0.0170			451.9917
Total	2.0858	62.5896	13.5257	0.1550	3.6790	0.3401	4.0191	1.0047	0.3253	1.3300		16,644.8351	16,644.8351	1.1457			16,673.4770

3.4 Grading - 2017

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	lb/day										lb/day						
Fugitive Dust					6.7276	0.0000	6.7276	3.3940	0.0000	3.3940			0.0000				0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352		3,037.9107	3,037.9107	0.9308			3,061.1809
Total	3.0705	33.8868	17.1042	0.0297	6.7276	1.7774	8.5051	3.3940	1.6352	5.0293		3,037.9107	3,037.9107	0.9308			3,061.1809

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
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Category	lb/day										lb/day					
	Hauling	1.9301	64.5110	11.8564	0.1554	3.3859	0.3480	3.7339	0.9279	0.3330	1.2609		16,733.04 43	16,733.044 3	1.1663	
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704
Total	2.1239	64.6529	13.6802	0.1595	3.7435	0.3510	4.0945	1.0228	0.3357	1.3585		17,134.43 67	17,134.436 7	1.1814		17,163.97 19

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	lb/day										lb/day					
Fugitive Dust					2.6238	0.0000	2.6238	1.3237	0.0000	1.3237			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.7555	0.7555		0.7555	0.7555	0.0000	3,037.910 7	3,037.9107	0.9308		3,061.180 9
Total	0.7263	14.8397	18.9906	0.0297	2.6238	0.7555	3.3793	1.3237	0.7555	2.0792	0.0000	3,037.910 7	3,037.9107	0.9308		3,061.180 9

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	lb/day										lb/day					
Hauling	1.9301	64.5110	11.8564	0.1554	3.3859	0.3480	3.7339	0.9279	0.3330	1.2609		16,733.04 43	16,733.044 3	1.1663		16,762.20 15
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
Worker	0.1937	0.1419	1.8238	4.0400e-003	0.3577	2.9500e-003	0.3606	0.0949	2.7200e-003	0.0976		401.3924	401.3924	0.0151		401.7704

Total	2.1239	64.6529	13.6802	0.1595	3.7435	0.3510	4.0945	1.0228	0.3357	1.3585		17,134.43 67	17,134.436 7	1.1814		17,163.97 19
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3.5 Building Construction - 2017

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.979 7	2,650.9797	0.6531		2,667.307 8
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.979 7	2,650.9797	0.6531		2,667.307 8

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	lb/day										lb/day					
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
Vendor	9.6800e-003	0.2582	0.0671	5.3000e-004	0.0128	2.2300e-003	0.0150	3.6900e-003	2.1400e-003	5.8200e-003		55.8892	55.8892	4.0000e-003		55.9893
Worker	0.0969	0.0709	0.9119	2.0200e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		200.6962	200.6962	7.5600e-003		200.8852
Total	0.1065	0.3291	0.9790	2.5500e-003	0.1916	3.7100e-003	0.1954	0.0511	3.5000e-003	0.0546		256.5854	256.5854	0.0116		256.8745

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	lb/day										lb/day					
Off-Road	1.0689	14.2764	18.2896	0.0269		0.9291	0.9291		0.9291	0.9291	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	1.0689	14.2764	18.2896	0.0269		0.9291	0.9291		0.9291	0.9291	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

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	lb/day										lb/day					
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
Vendor	9.6800e-003	0.2582	0.0671	5.3000e-004	0.0128	2.2300e-003	0.0150	3.6900e-003	2.1400e-003	5.8200e-003		55.8892	55.8892	4.0000e-003		55.9893
Worker	0.0969	0.0709	0.9119	2.0200e-003	0.1788	1.4800e-003	0.1803	0.0474	1.3600e-003	0.0488		200.6962	200.6962	7.5600e-003		200.8852
Total	0.1065	0.3291	0.9790	2.5500e-003	0.1916	3.7100e-003	0.1954	0.0511	3.5000e-003	0.0546		256.5854	256.5854	0.0116		256.8745

3.5 Building Construction - 2018

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	lb/day										lb/day					

Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2424	0.0604	5.2000e-004	0.0128	1.7700e-003	0.0146	3.6900e-003	1.6900e-003	5.3800e-003		55.7316	55.7316	3.7900e-003		55.8264
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626
Total	0.0947	0.3042	0.8632	2.4800e-003	0.1916	3.2000e-003	0.1948	0.0511	3.0000e-003	0.0541		250.8279	250.8279	0.0104		251.0890

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	lb/day										lb/day					
Off-Road	1.0098	14.2177	18.2359	0.0269		0.9149	0.9149		0.9149	0.9149	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	1.0098	14.2177	18.2359	0.0269		0.9149	0.9149		0.9149	0.9149	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2424	0.0604	5.2000e-004	0.0128	1.7700e-003	0.0146	3.6900e-003	1.6900e-003	5.3800e-003		55.7316	55.7316	3.7900e-003		55.8264
Worker	0.0862	0.0618	0.8028	1.9600e-003	0.1788	1.4300e-003	0.1803	0.0474	1.3100e-003	0.0487		195.0963	195.0963	6.6500e-003		195.2626
Total	0.0947	0.3042	0.8632	2.4800e-003	0.1916	3.2000e-003	0.1948	0.0511	3.0000e-003	0.0541		250.8279	250.8279	0.0104		251.0890

3.6 Paving - 2018

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	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432

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
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Category	lb/day										lb/day				
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
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
Worker	0.1724	0.1236	1.6056	3.9200e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		390.1925	390.1925	0.0133	390.5252
Total	0.1724	0.1236	1.6056	3.9200e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		390.1925	390.1925	0.0133	390.5252

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	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

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	lb/day										lb/day					
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
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
Worker	0.1724	0.1236	1.6056	3.9200e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		390.1925	390.1925	0.0133		390.5252

Total	0.1724	0.1236	1.6056	3.9200e-003	0.3577	2.8500e-003	0.3605	0.0949	2.6300e-003	0.0975		390.1925	390.1925	0.0133		390.5252
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3.7 Architectural Coating - 2018

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	27.8305	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156
Total	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156

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	lb/day										lb/day					
Archit. Coating	27.5319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171
Total	27.5913	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171

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	lb/day										lb/day					
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
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
Worker	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156
Total	0.0216	0.0155	0.2007	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7741	48.7741	1.6600e-003		48.8156

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	lb/day										lb/day					
Mitigated	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709
Unmitigated	0.5308	2.5565	7.1793	0.0214	1.5842	0.0249	1.6091	0.4240	0.0234	0.4474		2,169.6128	2,169.6128	0.1183		2,172.5709

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

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	lb/day										lb/day					
NaturalGas Mitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
NaturalGas Unmitigated	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Single Family Housing	1880.44	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					

Single Family Housing	1.88044	0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425
Total		0.0203	0.1733	0.0737	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.2279	221.2279	4.2400e-003	4.0600e-003	222.5425

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	lb/day										lb/day					
Mitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531
Unmitigated	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

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	lb/day										lb/day					
Architectural Coating	0.1509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7648	0.4565	11.1881	0.0285		1.6805	1.6805		1.6805	1.6805	206.0722	396.0000	602.0722	0.6146	0.0140	621.6039
Landscaping	0.0564	0.0212	1.8279	1.0000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		3.2682	3.2682	3.2400e-003		3.3491
Total	7.7144	0.4777	13.0160	0.0286		1.6905	1.6905		1.6905	1.6905	206.0722	399.2682	605.3404	0.6178	0.0140	624.9531

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Cowan Heights Residentail Project - South Coast AQMD Air District, Annual

Cowan Heights Residentail Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	22.00	Dwelling Unit	5.90	88,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
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

Project Characteristics – Operational start date provided by project applicant.

Land Use - Non default information was provided by the project applicant (average home size is 4,000 sqft.) Lot is 5.9 Acres.

Trips and VMT - Construction Trip information provided by Traffic Impact Assessment where possible.

Demolition -1 shed totaling 500 square feet to be demolished.

Grading - 46,000 CY of material to be imported across the Site Preparation phase and Grading Phase.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Vehicle Emission Factors – None.

Energy Use - None.

Water And Wastewater - 100% Aerobic Assumed.

Construction Off-road Equipment Mitigation - Speed limit of 15 miles per hour on unpaved road.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblGrading	MaterialImported	0.00	31,000.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	BuildingSpaceSquareFeet	39,600.00	88,000.00

tblLandUse	LandUseSquareFeet	39,600.00	88,000.00
tblLandUse	LotAcreage	7.14	5.90
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	18.00	36.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	32.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	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					
2017	0.4010	4.2810	2.3494	5.7300e-003	0.2330	0.2099	0.4428	0.1040	0.1964	0.3004	0.0000	534.1696	534.1696	0.0906	0.0000	536.4344
2018	0.3826	0.9318	0.7534	1.2100e-003	9.7800e-003	0.0577	0.0675	2.6100e-003	0.0541	0.0567	0.0000	107.6308	107.6308	0.0252	0.0000	108.2608
Maximum	0.4010	4.2810	2.3494	5.7300e-003	0.2330	0.2099	0.4428	0.1040	0.1964	0.3004	0.0000	534.1696	534.1696	0.0906	0.0000	536.4344

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					
2017	0.1537	2.6487	2.3913	5.7300e-003	0.1362	0.1046	0.2407	0.0529	0.1043	0.1572	0.0000	534.1692	534.1692	0.0906	0.0000	536.4341
2018	0.3176	0.5787	0.7985	1.2100e-003	9.7800e-003	0.0355	0.0453	2.6100e-003	0.0355	0.0381	0.0000	107.6307	107.6307	0.0252	0.0000	108.2606
Maximum	0.3176	2.6487	2.3913	5.7300e-003	0.1362	0.1046	0.2407	0.0529	0.1043	0.1572	0.0000	534.1692	534.1692	0.0906	0.0000	536.4341

	ROG	NOx	CO	SO2	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	39.85	38.09	-2.81	0.00	39.88	47.64	43.95	47.95	44.19	45.31	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2017	5-31-2017	2.3571	1.5683
2	6-1-2017	8-31-2017	0.9892	0.5185
3	9-1-2017	11-30-2017	0.9788	0.5132
4	12-1-2017	2-28-2018	0.8915	0.5045
5	3-1-2018	5-31-2018	0.7487	0.5622
		Highest	2.3571	1.5683

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	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287
Energy	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	96.7458	96.7458	3.1800e-003	1.1900e-003	97.1786
Mobile	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176

Waste						0.0000	0.0000		0.0000	0.0000	5.2433	0.0000	5.2433	0.3099	0.0000	12.9900
Water						0.0000	0.0000		0.0000	0.0000	0.5071	9.1456	9.6528	2.1200e-003	1.1800e-003	10.0578
Total	0.5146	0.5041	1.5694	4.1300e-003	0.2699	0.0291	0.2990	0.0723	0.0289	0.1012	8.0872	438.6094	446.6966	0.3409	2.5300e-003	455.9725

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	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287
Energy	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	96.7458	96.7458	3.1800e-003	1.1900e-003	97.1786
Mobile	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176
Waste						0.0000	0.0000		0.0000	0.0000	5.2433	0.0000	5.2433	0.3099	0.0000	12.9900
Water						0.0000	0.0000		0.0000	0.0000	0.5071	9.1456	9.6528	2.1200e-003	1.1800e-003	10.0578
Total	0.5146	0.5041	1.5694	4.1300e-003	0.2699	0.0291	0.2990	0.0723	0.0289	0.1012	8.0872	438.6094	446.6966	0.3409	2.5300e-003	455.9725

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2017	3/28/2017	5	20	
2	Site Preparation	Site Preparation	3/29/2017	4/11/2017	5	10	

3	Grading	Grading	4/12/2017	5/9/2017	5	20
4	Building Construction	Building Construction	5/10/2017	3/27/2018	5	230
5	Paving	Paving	3/28/2018	4/24/2018	5	20
6	Architectural Coating	Architectural Coating	4/25/2018	5/22/2018	5	20

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

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	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	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	7.00	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	6.00	78	0.48

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		6	32.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation		7	36.00	0.00	1,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading		6	32.00	0.00	3,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction		9	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving		6	32.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating		1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5000e-004	0.0000	2.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.4275	0.2301	3.9000e-004		0.0219	0.0219		0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	0.0410	0.4275	0.2301	3.9000e-004	2.5000e-004	0.0219	0.0222	4.0000e-005	0.0204	0.0205	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.4000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0778	0.0778	1.0000e-005	0.0000	0.0779
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	1.9200e-003	1.9400e-003	0.0171	4.0000e-005	3.5300e-003	3.0000e-005	3.5600e-003	9.3000e-004	3.0000e-005	9.7000e-004	0.0000	3.5430	3.5430	1.4000e-004	0.0000	3.5464

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					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2500e-003	0.1831	0.2467	3.9000e-004		8.6300e-003	8.6300e-003		8.6300e-003	8.6300e-003	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	9.2500e-003	0.1831	0.2467	3.9000e-004	1.0000e-004	8.6300e-003	8.7300e-003	1.0000e-005	8.6300e-003	8.6400e-003	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438

Mitigated Construction Off-Site

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

Hauling	1.0000e-005	3.4000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0778	0.0778	1.0000e-005	0.0000	0.0779
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	1.9200e-003	1.9400e-003	0.0171	4.0000e-005	3.5300e-003	3.0000e-005	3.5600e-003	9.3000e-004	3.0000e-005	9.7000e-004	0.0000	3.5430	3.5430	1.4000e-004	0.0000	3.5464

3.3 Site Preparation - 2017

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					0.0912	0.0000	0.0912	0.0498	0.0000	0.0498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	0.0248	0.2614	0.1173	1.9000e-004	0.0912	0.0144	0.1056	0.0498	0.0132	0.0630	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

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	9.4500e-003	0.3226	0.0595	7.5000e-004	0.0161	1.7000e-003	0.0178	4.4300e-003	1.6200e-003	6.0500e-003	0.0000	72.9156	72.9156	5.2300e-003	0.0000	73.0462
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	1.0800e-003	9.0000e-004	9.5800e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9492	1.9492	7.0000e-005	0.0000	1.9510
Total	0.0105	0.3235	0.0691	7.7000e-004	0.0181	1.7200e-003	0.0198	4.9500e-003	1.6400e-003	6.5900e-003	0.0000	74.8647	74.8647	5.3000e-003	0.0000	74.9972

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					0.0356	0.0000	0.0356	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	4.6600e-003	0.0953	0.1148	1.9000e-004	0.0356	4.7300e-003	0.0403	0.0194	4.7300e-003	0.0241	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

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	9.4500e-003	0.3226	0.0595	7.5000e-004	0.0161	1.7000e-003	0.0178	4.4300e-003	1.6200e-003	6.0500e-003	0.0000	72.9156	72.9156	5.2300e-003	0.0000	73.0462
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	1.0800e-003	9.0000e-004	9.5800e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9492	1.9492	7.0000e-005	0.0000	1.9510
Total	0.0105	0.3235	0.0691	7.7000e-004	0.0181	1.7200e-003	0.0198	4.9500e-003	1.6400e-003	6.5900e-003	0.0000	74.8647	74.8647	5.3000e-003	0.0000	74.9972

3.4 Grading - 2017

Unmitigated Construction On-Site

Off-Road	7.2600e-003	0.1484	0.1899	3.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	7.2600e-003	0.1484	0.1899	3.0000e-004	0.0262	7.5600e-003	0.0338	0.0132	7.5600e-003	0.0208	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705

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	0.0195	0.6667	0.1229	1.5400e-003	0.0333	3.5000e-003	0.0368	9.1500e-003	3.3500e-003	0.0125	0.0000	150.6921	150.6921	0.0108	0.0000	150.9621
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	1.9100e-003	1.6000e-003	0.0170	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.4652	3.4652	1.3000e-004	0.0000	3.4685
Total	0.0214	0.6683	0.1400	1.5800e-003	0.0368	3.5300e-003	0.0404	0.0101	3.3800e-003	0.0135	0.0000	154.1573	154.1573	0.0109	0.0000	154.4306

3.5 Building Construction - 2017

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	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0140	202.0140	0.0498	0.0000	203.2582
Total	0.2617	2.2306	1.5273	2.2600e-003		0.1502	0.1502		0.1410	0.1410	0.0000	202.0140	202.0140	0.0498	0.0000	203.2582

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	8.3000e-004	0.0222	5.9400e-003	4.0000e-005	1.0600e-003	1.9000e-004	1.2500e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.2096	4.2096	3.2000e-004	0.0000	4.2175
Worker	8.0400e-003	6.7100e-003	0.0715	1.6000e-004	0.0148	1.2000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	14.5538	14.5538	5.5000e-004	0.0000	14.5676
Total	8.8700e-003	0.0289	0.0775	2.0000e-004	0.0158	3.1000e-004	0.0161	4.2300e-003	2.9000e-004	4.5200e-003	0.0000	18.7634	18.7634	8.7000e-004	0.0000	18.7850

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	0.0898	1.1992	1.5363	2.2600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	202.0137	202.0137	0.0498	0.0000	203.2580
Total	0.0898	1.1992	1.5363	2.2600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	202.0137	202.0137	0.0498	0.0000	203.2580

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	8.3000e-004	0.0222	5.9400e-003	4.0000e-005	1.0600e-003	1.9000e-004	1.2500e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.2096	4.2096	3.2000e-004	0.0000	4.2175
Worker	8.0400e-003	6.7100e-003	0.0715	1.6000e-004	0.0148	1.2000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	14.5538	14.5538	5.5000e-004	0.0000	14.5676
Total	8.8700e-003	0.0289	0.0775	2.0000e-004	0.0158	3.1000e-004	0.0161	4.2300e-003	2.9000e-004	4.5200e-003	0.0000	18.7634	18.7634	8.7000e-004	0.0000	18.7850

3.5 Building Construction - 2018

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	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1593
Total	0.0831	0.7251	0.5450	8.3000e-004		0.0465	0.0465		0.0437	0.0437	0.0000	73.7078	73.7078	0.0181	0.0000	74.1593

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	7.6700e-003	1.9700e-003	2.0000e-005	3.9000e-004	6.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.7000e-004	0.0000	1.5487	1.5487	1.1000e-004	0.0000	1.5514
Worker	2.6400e-003	2.1600e-003	0.0232	6.0000e-005	5.4400e-003	4.0000e-005	5.4900e-003	1.4500e-003	4.0000e-005	1.4900e-003	0.0000	5.2204	5.2204	1.8000e-004	0.0000	5.2249
Total	2.9100e-003	9.8300e-003	0.0251	8.0000e-005	5.8300e-003	1.0000e-004	5.9400e-003	1.5600e-003	9.0000e-005	1.6600e-003	0.0000	6.7691	6.7691	2.9000e-004	0.0000	6.7763

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	0.0313	0.4408	0.5653	8.3000e-004		0.0284	0.0284		0.0284	0.0284	0.0000	73.7078	73.7078	0.0181	0.0000	74.1592
Total	0.0313	0.4408	0.5653	8.3000e-004		0.0284	0.0284		0.0284	0.0284	0.0000	73.7078	73.7078	0.0181	0.0000	74.1592

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	7.6700e-003	1.9700e-003	2.0000e-005	3.9000e-004	6.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.7000e-004	0.0000	1.5487	1.5487	1.1000e-004	0.0000	1.5514
Worker	2.6400e-003	2.1600e-003	0.0232	6.0000e-005	5.4400e-003	4.0000e-005	5.4900e-003	1.4500e-003	4.0000e-005	1.4900e-003	0.0000	5.2204	5.2204	1.8000e-004	0.0000	5.2249
Total	2.9100e-003	9.8300e-003	0.0251	8.0000e-005	5.8300e-003	1.0000e-004	5.9400e-003	1.5600e-003	9.0000e-005	1.6600e-003	0.0000	6.7691	6.7691	2.9000e-004	0.0000	6.7763

3.6 Paving - 2018

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	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

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	1.7000e-003	1.3900e-003	0.0149	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.3680	3.3680	1.1000e-004	0.0000	3.3709
Total	1.7000e-003	1.3900e-003	0.0149	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.3680	3.3680	1.1000e-004	0.0000	3.3709

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

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	1.7000e-003	1.3900e-003	0.0149	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.3680	3.3680	1.1000e-004	0.0000	3.3709
Total	1.7000e-003	1.3900e-003	0.0149	4.0000e-005	3.5100e-003	3.0000e-005	3.5400e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	3.3680	3.3680	1.1000e-004	0.0000	3.3709

3.7 Architectural Coating - 2018

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	0.2753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.2783	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

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	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214
Total	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214

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	0.2753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.2759	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

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	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214
Total	2.1000e-004	1.7000e-004	1.8700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4210	0.4210	1.0000e-005	0.0000	0.4214

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	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176
Unmitigated	0.0863	0.4641	1.1876	3.5600e-003	0.2699	4.3200e-003	0.2742	0.0723	4.0700e-003	0.0764	0.0000	327.8568	327.8568	0.0184	0.0000	328.3176

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	209.44	218.02	189.64	710,211	710,211
Total	209.44	218.02	189.64	710,211	710,211

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

Single Family Housing	686360	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444
Total		3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444

Mitigated

	Natural Gas 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					
Single Family Housing	686360	3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444
Total		3.7000e-003	0.0316	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6268	36.6268	7.0000e-004	6.7000e-004	36.8444

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	188685	60.1191	2.4800e-003	5.1000e-004	60.3342
Total		60.1191	2.4800e-003	5.1000e-004	60.3342

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	188685	60.1191	2.4800e-003	5.1000e-004	60.3342
Total		60.1191	2.4800e-003	5.1000e-004	60.3342

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	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287
Unmitigated	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

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	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0721	5.7100e-003	0.1399	3.6000e-004		0.0210	0.0210		0.0210	0.0210	2.3368	4.4906	6.8274	6.9700e-003	1.6000e-004	7.0489
Landscaping	7.0400e-003	2.6500e-003	0.2285	1.0000e-005		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	0.3706	0.3706	3.7000e-004	0.0000	0.3798
Total	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

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	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0721	5.7100e-003	0.1399	3.6000e-004		0.0210	0.0210		0.0210	0.0210	2.3368	4.4906	6.8274	6.9700e-003	1.6000e-004	7.0489
Landscaping	7.0400e-003	2.6500e-003	0.2285	1.0000e-005		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	0.3706	0.3706	3.7000e-004	0.0000	0.3798
Total	0.4246	8.3600e-003	0.3683	3.7000e-004		0.0223	0.0223		0.0223	0.0223	2.3368	4.8612	7.1980	7.3400e-003	1.6000e-004	7.4287

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6528	2.1200e-003	1.1800e-003	10.0578
Unmitigated	9.6528	2.1200e-003	1.1800e-003	10.0578

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.43339 / 0.903658	9.6528	2.1200e-003	1.1800e-003	10.0578
Total		9.6528	2.1200e-003	1.1800e-003	10.0578

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Single Family Housing	1.43339 / 0.903658	9.6528	2.1200e-003	1.1800e-003	10.0578
Total		9.6528	2.1200e-003	1.1800e-003	10.0578

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2433	0.3099	0.0000	12.9900
Unmitigated	5.2433	0.3099	0.0000	12.9900

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	25.83	5.2433	0.3099	0.0000	12.9900
Total		5.2433	0.3099	0.0000	12.9900

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	25.83	5.2433	0.3099	0.0000	12.9900
Total		5.2433	0.3099	0.0000	12.9900

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
