

Valentine St. Apartments
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	100.00	Space	0.90	40,000.00	0
Apartments Mid Rise	120.00	Dwelling Unit	3.16	120,000.00	343
Supermarket	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2015
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Architectural Coating - Half the walls are pre-fabricated and pre-painted, thus lowering the residential square foot to coat.

Land Use Change -

Sequestration -

Operational Off-Road Equipment - A forklift is needed to unload new product at the supermarket.

Grading -

Construction Off-road Equipment Mitigation - Cleaner engines to be used for some construction equipment.

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Interior	243,000.00	150,000.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblGrading	MaterialExported	0.00	16.00
tblGrading	MaterialExported	0.00	16.00
tblGrading	MaterialImported	0.00	16.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblSequestration	NumberOfNewTrees	0.00	12.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	36.1011	0.9168	70.4160	0.0965		9.2207	9.2207		9.2192	9.2192	1,124.0302	2,177.8536	3,301.8838	3.3707	0.0763	3,396.3187
Energy	0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5400e-003	8.1700e-003	448.5233
Mobile	17.9090	35.5428	155.2973	0.2848	18.6421	0.4901	19.1322	4.9803	0.4501	5.4304		25,690.3042	25,690.3042	1.1372		25,714.1852
Offroad	0.0603	0.5181	0.3189	3.8000e-004		0.0435	0.0435		0.0400	0.0400		40.0917	40.0917	0.0120		40.3430
Total	54.1113	37.3360	226.2476	0.3839	18.6421	9.7825	28.4246	4.9803	9.7376	14.7179	1,124.0302	28,354.0597	29,478.0899	4.5284	0.0845	29,599.3701

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.8665	0.1190	10.1104	5.2000e-004		0.1989	0.1989		0.1974	0.1974	0.0000	2,304.9125	2,304.9125	0.0625	0.0419	2,319.2221
Energy	0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5400e-003	8.1700e-003	448.5233
Mobile	16.6664	26.9769	123.0581	0.1992	12.7477	0.3499	13.0976	3.4056	0.3213	3.7269		17,958.7637	17,958.7637	0.8349		17,976.2967
Offroad	0.0603	0.5181	0.3189	3.8000e-004		0.0435	0.0435		0.0400	0.0400		40.0917	40.0917	0.0120		40.3430
Total	21.6341	27.9723	133.7028	0.2023	12.7477	0.6205	13.3683	3.4056	0.5869	3.9925	0.0000	20,749.5780	20,749.5780	0.9179	0.0501	20,784.3851

	ROG	NOx	CO	SO2	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	60.13	26.47	41.05	47.39	31.62	94.10	53.12	31.62	94.38	73.15	100.00	26.96	29.75	80.00	40.68	29.92

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	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/4/2015	5	5	
3	Grading	Grading	2/5/2015	2/16/2015	5	8	
4	Building Construction	Building Construction	2/17/2015	1/4/2016	5	230	
5	Paving	Paving	1/5/2016	1/28/2016	5	18	
6	Architectural Coating	Architectural Coating	1/29/2016	2/23/2016	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 150,000; Residential Outdoor: 81,000; Non-Residential Indoor: 97,500; Non-Residential Outdoor: 32,500 (Architectural Coating – sqft)

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	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	111.00	23.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2015

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	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886

3.2 Demolition - 2015

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	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003			184.9937
Total	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003			184.9937

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	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188			4,150.6886
Total	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858	0.0000	4,127.1934	4,127.1934	1.1188			4,150.6886

3.2 Demolition - 2015

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	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003			184.9937
Total	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003			184.9937

3.3 Site Preparation - 2015

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					18.0666	0.0000	18.0666	9.9307	0.0000	9.9307			0.0000			0.0000	
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275			4,137.5225
Total	5.2609	56.8897	42.6318	0.0391	18.0666	3.0883	21.1549	9.9307	2.8412	12.7720		4,111.7444	4,111.7444	1.2275			4,137.5225

3.3 Site Preparation - 2015

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	7.7500e-003	0.1244	0.0838	3.0000e-004	6.9700e-003	2.1700e-003	9.1400e-003	1.9100e-003	1.9900e-003	3.9000e-003		30.0627	30.0627	2.4000e-004			30.0676
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	0.0833	0.1042	1.2923	2.5500e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		221.7418	221.7418	0.0119			221.9925
Total	0.0911	0.2286	1.3761	2.8500e-003	0.2082	3.9400e-003	0.2121	0.0553	3.6100e-003	0.0589		251.8045	251.8045	0.0122			252.0601

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					7.0460	0.0000	7.0460	3.8730	0.0000	3.8730			0.0000				0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412	0.0000	4,111.7444	4,111.7444	1.2275			4,137.5224
Total	5.2609	56.8897	42.6318	0.0391	7.0460	3.0883	10.1343	3.8730	2.8412	6.7142	0.0000	4,111.7444	4,111.7444	1.2275			4,137.5224

3.3 Site Preparation - 2015

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	7.7500e-003	0.1244	0.0838	3.0000e-004	6.9700e-003	2.1700e-003	9.1400e-003	1.9100e-003	1.9900e-003	3.9000e-003		30.0627	30.0627	2.4000e-004		30.0676
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	0.0833	0.1042	1.2923	2.5500e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		221.7418	221.7418	0.0119		221.9925
Total	0.0911	0.2286	1.3761	2.8500e-003	0.2082	3.9400e-003	0.2121	0.0553	3.6100e-003	0.0589		251.8045	251.8045	0.0122		252.0601

3.4 Grading - 2015

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					6.5528	0.0000	6.5528	3.3676	0.0000	3.3676			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
Total	3.8327	40.4161	26.6731	0.0298	6.5528	2.3284	8.8811	3.3676	2.1421	5.5096		3,129.0158	3,129.0158	0.9341		3,148.6328

3.4 Grading - 2015

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	4.8400e-003	0.0778	0.0524	1.8000e-004	4.3600e-003	1.3600e-003	5.7100e-003	1.1900e-003	1.2500e-003	2.4400e-003		18.7892	18.7892	1.5000e-004		18.7923
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	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003		184.9937
Total	0.0743	0.1646	1.1293	2.3100e-003	0.1720	2.8400e-003	0.1749	0.0457	2.6000e-003	0.0483		203.5740	203.5740	0.0101		203.7860

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					2.5556	0.0000	2.5556	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
Total	3.8327	40.4161	26.6731	0.0298	2.5556	2.3284	4.8839	1.3133	2.1421	3.4554	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328

3.4 Grading - 2015

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	4.8400e-003	0.0778	0.0524	1.8000e-004	4.3600e-003	1.3600e-003	5.7100e-003	1.1900e-003	1.2500e-003	2.4400e-003		18.7892	18.7892	1.5000e-004		18.7923
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	0.0694	0.0869	1.0769	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.7848	184.7848	9.9500e-003		184.9937
Total	0.0743	0.1646	1.1293	2.3100e-003	0.1720	2.8400e-003	0.1749	0.0457	2.6000e-003	0.0483		203.5740	203.5740	0.0101		203.7860

3.5 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483

3.5 Building Construction - 2015

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	0.2166	2.2490	2.4890	5.0100e-003	0.1437	0.0393	0.1830	0.0409	0.0362	0.0771		507.0516	507.0516	3.9600e-003			507.1348
Worker	0.5138	0.6427	7.9691	0.0157	1.2407	0.0109	1.2516	0.3290	0.0100	0.3391		1,367.4076	1,367.4076	0.0736			1,368.9537
Total	0.7304	2.8917	10.4582	0.0207	1.3844	0.0503	1.4347	0.3700	0.0462	0.4161		1,874.4592	1,874.4592	0.0776			1,876.0885

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748			2,703.7483
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748			2,703.7483

3.5 Building Construction - 2015

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	0.2166	2.2490	2.4890	5.0100e-003	0.1437	0.0393	0.1830	0.0409	0.0362	0.0771		507.0516	507.0516	3.9600e-003			507.1348
Worker	0.5138	0.6427	7.9691	0.0157	1.2407	0.0109	1.2516	0.3290	0.0100	0.3391		1,367.4076	1,367.4076	0.0736			1,368.9537
Total	0.7304	2.8917	10.4582	0.0207	1.3844	0.0503	1.4347	0.3700	0.0462	0.4161		1,874.4592	1,874.4592	0.0776			1,876.0885

3.5 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620			2,683.1890
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620			2,683.1890

3.5 Building Construction - 2016

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	0.1915	1.9865	2.2906	5.0000e-003	0.1438	0.0327	0.1765	0.0409	0.0301	0.0710		501.4665	501.4665	3.5800e-003			501.5417
Worker	0.4637	0.5797	7.2152	0.0157	1.2407	0.0104	1.2511	0.3290	9.5300e-003	0.3386		1,320.2988	1,320.2988	0.0677			1,321.7213
Total	0.6552	2.5662	9.5058	0.0207	1.3845	0.0431	1.4275	0.3700	0.0396	0.4096		1,821.7653	1,821.7653	0.0713			1,823.2630

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620			2,683.1890
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620			2,683.1890

3.5 Building Construction - 2016

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	0.1915	1.9865	2.2906	5.0000e-003	0.1438	0.0327	0.1765	0.0409	0.0301	0.0710		501.4665	501.4665	3.5800e-003			501.5417
Worker	0.4637	0.5797	7.2152	0.0157	1.2407	0.0104	1.2511	0.3290	9.5300e-003	0.3386		1,320.2988	1,320.2988	0.0677			1,321.7213
Total	0.6552	2.5662	9.5058	0.0207	1.3845	0.0431	1.4275	0.3700	0.0396	0.4096		1,821.7653	1,821.7653	0.0713			1,823.2630

3.6 Paving - 2016

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	1.7956	18.3417	12.5623	0.0186		1.1065	1.1065		1.0198	1.0198		1,902.2212	1,902.2212	0.5588			1,913.9557
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	1.7956	18.3417	12.5623	0.0186		1.1065	1.1065		1.0198	1.0198		1,902.2212	1,902.2212	0.5588			1,913.9557

3.6 Paving - 2016

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	0.0836	0.1045	1.3000	2.8300e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		237.8917	237.8917	0.0122			238.1480
Total	0.0836	0.1045	1.3000	2.8300e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		237.8917	237.8917	0.0122			238.1480

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	1.7956	18.3417	12.5623	0.0186		1.1065	1.1065		1.0198	1.0198	0.0000	1,902.221 2	1,902.221 2	0.5588			1,913.955 7
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	1.7956	18.3417	12.5623	0.0186		1.1065	1.1065		1.0198	1.0198	0.0000	1,902.221 2	1,902.221 2	0.5588			1,913.955 7

3.6 Paving - 2016

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	0.0836	0.1045	1.3000	2.8300e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		237.8917	237.8917	0.0122			238.1480
Total	0.0836	0.1045	1.3000	2.8300e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		237.8917	237.8917	0.0122			238.1480

3.7 Architectural Coating - 2016

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	123.8575					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332			282.1449
Total	124.2260	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332			282.1449

3.7 Architectural Coating - 2016

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	0.0919	0.1149	1.4300	3.1200e-003	0.2459	2.0600e-003	0.2480	0.0652	1.8900e-003	0.0671		261.6808	261.6808	0.0134		261.9628
Total	0.0919	0.1149	1.4300	3.1200e-003	0.2459	2.0600e-003	0.2480	0.0652	1.8900e-003	0.0671		261.6808	261.6808	0.0134		261.9628

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	123.8575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	124.2260	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449

3.7 Architectural Coating - 2016

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	0.0919	0.1149	1.4300	3.1200e-003	0.2459	2.0600e-003	0.2480	0.0652	1.8900e-003	0.0671		261.6808	261.6808	0.0134			261.9628
Total	0.0919	0.1149	1.4300	3.1200e-003	0.2459	2.0600e-003	0.2480	0.0652	1.8900e-003	0.0671		261.6808	261.6808	0.0134			261.9628

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	16.6664	26.9769	123.0581	0.1992	12.7477	0.3499	13.0976	3.4056	0.3213	3.7269		17,958.76 37	17,958.76 37	0.8349		17,976.29 67
Unmitigated	17.9090	35.5428	155.2973	0.2848	18.6421	0.4901	19.1322	4.9803	0.4501	5.4304		25,690.30 42	25,690.30 42	1.1372		25,714.18 52

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	790.80	859.20	728.40	2,705,213	1,849,861
Enclosed Parking Structure	0.00	0.00	0.00		
Supermarket	2,556.00	4,439.75	4161.00	4,030,182	2,755,892
Total	3,346.80	5,298.95	4,889.40	6,735,395	4,605,753

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514499	0.060499	0.179997	0.139763	0.042095	0.006675	0.015446	0.029572	0.001914	0.002508	0.004341	0.000594	0.002098

5.0 Energy Detail

4.4 Fleet Mix

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	0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5400e-003	8.1700e-003	448.5233
NaturalGas Unmitigated	0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5400e-003	8.1700e-003	448.5233

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					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	1547.26	0.0167	0.1517	0.1274	9.1000e-004		0.0115	0.0115		0.0115	0.0115		182.0306	182.0306	3.4900e-003	3.3400e-003	183.1384
Apartments Mid Rise	2242.13	0.0242	0.2066	0.0879	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.7795	263.7795	5.0600e-003	4.8400e-003	265.3849
Total		0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5500e-003	8.1800e-003	448.5233

5.2 Energy by Land Use - NaturalGas

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					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	1.54726	0.0167	0.1517	0.1274	9.1000e-004		0.0115	0.0115		0.0115	0.0115		182.0306	182.0306	3.4900e-003	3.3400e-003	183.1384
Apartments Mid Rise	2.24213	0.0242	0.2066	0.0879	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.7795	263.7795	5.0600e-003	4.8400e-003	265.3849
Total		0.0409	0.3583	0.2154	2.2300e-003		0.0282	0.0282		0.0282	0.0282		445.8102	445.8102	8.5500e-003	8.1800e-003	448.5233

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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	4.8665	0.1190	10.1104	5.2000e-004		0.1989	0.1989		0.1974	0.1974	0.0000	2,304.9125	2,304.9125	0.0625	0.0419	2,319.2221
Unmitigated	36.1011	0.9168	70.4160	0.0965		9.2207	9.2207		9.2192	9.2192	1,124.0302	2,177.8536	3,301.8838	3.3707	0.0763	3,396.3187

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	0.6699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6630					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	31.4443	0.7978	60.3170	0.0960		9.1666	9.1666		9.1652	9.1652	1,124.0302	2,160.0000	3,284.0302	3.3521	0.0763	3,378.0741
Landscaping	0.3240	0.1189	10.0990	5.2000e-004		0.0541	0.0541		0.0541	0.0541		17.8536	17.8536	0.0186		18.2446
Total	36.1011	0.9168	70.4160	0.0965		9.2207	9.2207		9.2192	9.2192	1,124.0302	2,177.8536	3,301.8838	3.3707	0.0763	3,396.3187

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6630					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2097	1.0000e-005	0.0114	0.0000		0.1449	0.1449		0.1433	0.1433	0.0000	2,287.0588	2,287.0588	0.0438	0.0419	2,300.9775
Landscaping	0.3240	0.1189	10.0990	5.2000e-004		0.0541	0.0541		0.0541	0.0541		17.8536	17.8536	0.0186		18.2446
Total	4.8665	0.1190	10.1104	5.2000e-004		0.1989	0.1989		0.1974	0.1974	0.0000	2,304.9125	2,304.9125	0.0625	0.0419	2,319.2221

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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
Forklifts	1	2.00	260	89	0.20	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.0603	0.5181	0.3189	3.8000e-004		0.0435	0.0435		0.0400	0.0400		40.0917	40.0917	0.0120		40.3430
Total	0.0603	0.5181	0.3189	3.8000e-004		0.0435	0.0435		0.0400	0.0400		40.0917	40.0917	0.0120		40.3430

10.0 Vegetation
