

The Avenues Specific Plan - San Joaquin County, Annual

**The Avenues Specific Plan
San Joaquin County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.50	Acre	0.50	21,780.00	0
City Park	4.00	Acre	4.00	174,240.00	0
Single Family Housing	480.00	Dwelling Unit	90.50	864,000.00	1523

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	51
Climate Zone	2			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Project site = 95 acres

Construction Phase - Project construction = 2 years. Paving and painting assumed to occur simultaneously with building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Soil to balance on-site

Grading -

Vehicle Trips - Trip Generation per Traffic Impact Analysis

Woodstoves - No wood burning devices per default so no wood mass burned

Sequestration - project would include 500 mixed hardwood trees

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2016 CalGreen + an additional 10.5% per RPS requirements (2013 PG&E = 22.5 renewables)

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,550.00	327.00
tblConstructionPhase	PhaseEndDate	5/4/2021	12/1/2020

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tblConstructionPhase	PhaseStartDate	12/2/2020	7/1/2020
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	FleetMixLandUseSubType	Other Non-Asphalt Surfaces	City Park
tblFleetMix	FleetMixLandUseSubType	City Park	Other Non-Asphalt Surfaces
tblGrading	MaterialExported	0.00	106,000.00
tblLandUse	LotAcreage	155.84	90.50
tblProjectCharacteristics	OperationalYear	2018	2020
tblSequestration	NumberOfNewTrees	0.00	500.00
tblTripsAndVMT	HaulingTripLength	20.00	0.10
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	9.91	10.41
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	8.62	9.05
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	9.52	10.00
tblWoodstoves	NumberCatalytic	90.50	0.00
tblWoodstoves	NumberNoncatalytic	90.50	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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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					
2018	0.3849	4.5842	2.3723	4.5900e-003	1.2341	0.1976	1.4318	0.5811	0.1819	0.7629	0.0000	420.8801	420.8801	0.1249	0.0000	424.0018
2019	0.5441	5.2578	3.8462	9.4000e-003	0.9397	0.2132	1.1529	0.3502	0.1990	0.5492	0.0000	852.3416	852.3416	0.1415	0.0000	855.8779
2020	8.4422	2.8093	2.7086	6.2700e-003	0.1966	0.1247	0.3213	0.0531	0.1168	0.1699	0.0000	562.3805	562.3805	0.0864	0.0000	564.5398
Maximum	8.4422	5.2578	3.8462	9.4000e-003	1.2341	0.2132	1.4318	0.5811	0.1990	0.7629	0.0000	852.3416	852.3416	0.1415	0.0000	855.8779

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					
2018	0.1136	2.3659	2.4611	4.5900e-003	0.4172	0.0880	0.5052	0.1948	0.0880	0.2828	0.0000	420.8797	420.8797	0.1249	0.0000	424.0014
2019	0.2750	3.7975	4.0232	9.4000e-003	0.4851	0.1404	0.6256	0.1631	0.1400	0.3031	0.0000	852.3412	852.3412	0.1415	0.0000	855.8774
2020	8.2944	2.3165	2.9207	6.2700e-003	0.1966	0.1021	0.2987	0.0531	0.1019	0.1549	0.0000	562.3802	562.3802	0.0864	0.0000	564.5394
Maximum	8.2944	3.7975	4.0232	9.4000e-003	0.4851	0.1404	0.6256	0.1948	0.1400	0.3031	0.0000	852.3412	852.3412	0.1415	0.0000	855.8774

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.34	32.97	-5.35	0.00	53.64	38.28	50.81	58.25	33.73	50.02	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2018	9-3-2018	1.8157	0.7379
2	9-4-2018	12-3-2018	2.4123	1.3362
3	12-4-2018	3-3-2019	2.2571	1.3113
4	3-4-2019	6-3-2019	1.4953	1.0362
5	6-4-2019	9-3-2019	1.1979	0.9173
6	9-4-2019	12-3-2019	1.1922	0.9146
7	12-4-2019	3-3-2020	1.1183	0.8887
8	3-4-2020	6-3-2020	1.0901	0.8796
9	6-4-2020	9-3-2020	4.1574	4.0010
10	9-4-2020	9-30-2020	1.5943	1.5550
		Highest	4.1574	4.0010

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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	4.3187	0.2209	3.6524	1.3300e-003		0.0342	0.0342		0.0342	0.0342	0.0000	213.7615	213.7615	9.6600e-003	3.8100e-003	215.1391
Energy	0.0828	0.7075	0.3011	4.5200e-003		0.0572	0.0572		0.0572	0.0572	0.0000	2,084.2190	2,084.2190	0.0729	0.0269	2,094.0442
Mobile	1.7533	12.1974	19.9901	0.0720	5.1890	0.0764	5.2655	1.3915	0.0721	1.4636	0.0000	6,630.2799	6,630.2799	0.3294	0.0000	6,638.5154
Waste						0.0000	0.0000		0.0000	0.0000	111.3649	0.0000	111.3649	6.5815	0.0000	275.9018
Water						0.0000	0.0000		0.0000	0.0000	9.9218	74.1564	84.0782	1.0224	0.0248	117.0159
Total	6.1548	13.1259	23.9435	0.0779	5.1890	0.1678	5.3568	1.3915	0.1635	1.5550	121.2867	9,002.4168	9,123.7034	8.0159	0.0554	9,340.6163

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.2977	0.0414	3.5759	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8219	5.8219	5.6800e-003	0.0000	5.9638
Energy	0.0536	0.4580	0.1949	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	1,561.9612	1,561.9612	0.0568	0.0194	1,569.1551
Mobile	1.6556	11.2391	17.7945	0.0626	4.4366	0.0665	4.5031	1.1898	0.0627	1.2524	0.0000	5,765.9814	5,765.9814	0.3041	0.0000	5,773.5844
Waste						0.0000	0.0000		0.0000	0.0000	55.6825	0.0000	55.6825	3.2907	0.0000	137.9509
Water						0.0000	0.0000		0.0000	0.0000	7.9374	62.7901	70.7275	0.8181	0.0198	97.0912
Total	6.0068	11.7384	21.5653	0.0657	4.4366	0.1232	4.5598	1.1898	0.1194	1.3091	63.6199	7,396.5546	7,460.1745	4.4754	0.0392	7,583.7454

	ROG	NOx	CO	SO2	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	2.40	10.57	9.93	15.60	14.50	26.61	14.88	14.50	26.98	15.81	47.55	17.84	18.23	44.17	29.25	18.81

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	521.0000
Total	521.0000

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/4/2018	8/24/2018	5	60	
2	Grading	Grading	8/25/2018	3/29/2019	5	155	
3	Building Construction	Building Construction	3/30/2019	6/30/2020	5	327	
4	Paving	Paving	7/1/2020	12/1/2020	5	110	
5	Architectural Coating	Architectural Coating	7/1/2020	12/1/2020	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 387.5

Acres of Paving: 0.5

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Residential Indoor: 1,749,600; Residential Outdoor: 583,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,307 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	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

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	13,250.00	10.80	7.30	0.10	LD_Mix	HDT_Mix	HHDT
Building Construction	9	255.00	83.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					0.5420	0.0000	0.5420	0.2979	0.0000	0.2979	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1369	1.4460	0.6743	1.1400e-003		0.0773	0.0773		0.0711	0.0711	0.0000	104.2797	104.2797	0.0325	0.0000	105.0913
Total	0.1369	1.4460	0.6743	1.1400e-003	0.5420	0.0773	0.6193	0.2979	0.0711	0.3690	0.0000	104.2797	104.2797	0.0325	0.0000	105.0913

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3.2 Site Preparation - 2018

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	2.6200e-003	2.0000e-003	0.0194	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	4.0524	4.0524	1.4000e-004	0.0000	4.0558
Total	2.6200e-003	2.0000e-003	0.0194	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	4.0524	4.0524	1.4000e-004	0.0000	4.0558

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					0.1797	0.0000	0.1797	0.0988	0.0000	0.0988	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.5720	0.6888	1.1400e-003		0.0284	0.0284		0.0284	0.0284	0.0000	104.2796	104.2796	0.0325	0.0000	105.0912
Total	0.0279	0.5720	0.6888	1.1400e-003	0.1797	0.0284	0.2081	0.0988	0.0284	0.1271	0.0000	104.2796	104.2796	0.0325	0.0000	105.0912

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3.2 Site Preparation - 2018

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	2.6200e-003	2.0000e-003	0.0194	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	4.0524	4.0524	1.4000e-004	0.0000	4.0558
Total	2.6200e-003	2.0000e-003	0.0194	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	4.0524	4.0524	1.4000e-004	0.0000	4.0558

3.3 Grading - 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					
Fugitive Dust					0.6800	0.0000	0.6800	0.2799	0.0000	0.2799	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2316	2.7082	1.5966	2.8200e-003		0.1198	0.1198		0.1103	0.1103	0.0000	257.7507	257.7507	0.0802	0.0000	259.7567
Total	0.2316	2.7082	1.5966	2.8200e-003	0.6800	0.1198	0.7999	0.2799	0.1103	0.3902	0.0000	257.7507	257.7507	0.0802	0.0000	259.7567

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3.3 Grading - 2018

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	9.3400e-003	0.4246	0.0493	5.0000e-004	5.9000e-004	4.2000e-004	1.0100e-003	1.6000e-004	4.0000e-004	5.6000e-004	0.0000	47.9683	47.9683	0.0118	0.0000	48.2632
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4100e-003	3.3800e-003	0.0327	8.0000e-005	7.2500e-003	5.0000e-005	7.3000e-003	1.9300e-003	5.0000e-005	1.9800e-003	0.0000	6.8290	6.8290	2.3000e-004	0.0000	6.8348
Total	0.0138	0.4279	0.0820	5.8000e-004	7.8400e-003	4.7000e-004	8.3100e-003	2.0900e-003	4.5000e-004	2.5400e-003	0.0000	54.7973	54.7973	0.0120	0.0000	55.0980

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					0.2254	0.0000	0.2254	0.0928	0.0000	0.0928	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0693	1.3640	1.6709	2.8200e-003		0.0591	0.0591		0.0591	0.0591	0.0000	257.7504	257.7504	0.0802	0.0000	259.7564
Total	0.0693	1.3640	1.6709	2.8200e-003	0.2254	0.0591	0.2845	0.0928	0.0591	0.1519	0.0000	257.7504	257.7504	0.0802	0.0000	259.7564

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3.3 Grading - 2018

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	9.3400e-003	0.4246	0.0493	5.0000e-004	5.9000e-004	4.2000e-004	1.0100e-003	1.6000e-004	4.0000e-004	5.6000e-004	0.0000	47.9683	47.9683	0.0118	0.0000	48.2632
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4100e-003	3.3800e-003	0.0327	8.0000e-005	7.2500e-003	5.0000e-005	7.3000e-003	1.9300e-003	5.0000e-005	1.9800e-003	0.0000	6.8290	6.8290	2.3000e-004	0.0000	6.8348
Total	0.0138	0.4279	0.0820	5.8000e-004	7.8400e-003	4.7000e-004	8.3100e-003	2.0900e-003	4.5000e-004	2.5400e-003	0.0000	54.7973	54.7973	0.0120	0.0000	55.0980

3.3 Grading - 2019

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					0.6800	0.0000	0.6800	0.2799	0.0000	0.2799	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1517	1.7447	1.0681	1.9800e-003		0.0762	0.0762		0.0702	0.0702	0.0000	178.2442	178.2442	0.0564	0.0000	179.6541
Total	0.1517	1.7447	1.0681	1.9800e-003	0.6800	0.0762	0.7563	0.2799	0.0702	0.3501	0.0000	178.2442	178.2442	0.0564	0.0000	179.6541

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3.3 Grading - 2019

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	6.1800e-003	0.2893	0.0326	3.5000e-004	5.4000e-004	2.6000e-004	8.0000e-004	1.5000e-004	2.5000e-004	4.0000e-004	0.0000	33.4351	33.4351	8.0700e-003	0.0000	33.6370
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	2.8000e-003	2.0800e-003	0.0203	5.0000e-005	5.1000e-003	4.0000e-005	5.1300e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.6636	4.6636	1.4000e-004	0.0000	4.6672
Total	8.9800e-003	0.2914	0.0529	4.0000e-004	5.6400e-003	3.0000e-004	5.9300e-003	1.5100e-003	2.8000e-004	1.7900e-003	0.0000	38.0987	38.0987	8.2100e-003	0.0000	38.3041

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					0.2254	0.0000	0.2254	0.0928	0.0000	0.0928	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0487	0.9593	1.1751	1.9800e-003		0.0416	0.0416		0.0416	0.0416	0.0000	178.2440	178.2440	0.0564	0.0000	179.6539
Total	0.0487	0.9593	1.1751	1.9800e-003	0.2254	0.0416	0.2670	0.0928	0.0416	0.1344	0.0000	178.2440	178.2440	0.0564	0.0000	179.6539

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3.3 Grading - 2019

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	6.1800e-003	0.2893	0.0326	3.5000e-004	5.4000e-004	2.6000e-004	8.0000e-004	1.5000e-004	2.5000e-004	4.0000e-004	0.0000	33.4351	33.4351	8.0700e-003	0.0000	33.6370
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	2.8000e-003	2.0800e-003	0.0203	5.0000e-005	5.1000e-003	4.0000e-005	5.1300e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.6636	4.6636	1.4000e-004	0.0000	4.6672
Total	8.9800e-003	0.2914	0.0529	4.0000e-004	5.6400e-003	3.0000e-004	5.9300e-003	1.5100e-003	2.8000e-004	1.7900e-003	0.0000	38.0987	38.0987	8.2100e-003	0.0000	38.3041

3.4 Building Construction - 2019

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	0.2326	2.0763	1.6906	2.6500e-003		0.1271	0.1271		0.1195	0.1195	0.0000	231.5776	231.5776	0.0564	0.0000	232.9880
Total	0.2326	2.0763	1.6906	2.6500e-003		0.1271	0.1271		0.1195	0.1195	0.0000	231.5776	231.5776	0.0564	0.0000	232.9880

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3.4 Building Construction - 2019

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	0.0410	1.0639	0.2377	2.3300e-003	0.0540	8.1600e-003	0.0622	0.0156	7.8000e-003	0.0234	0.0000	221.3933	221.3933	0.0148	0.0000	221.7638
Worker	0.1099	0.0817	0.7970	2.0300e-003	0.2001	1.4100e-003	0.2015	0.0532	1.3000e-003	0.0545	0.0000	183.0277	183.0277	5.6100e-003	0.0000	183.1680
Total	0.1509	1.1456	1.0347	4.3600e-003	0.2541	9.5700e-003	0.2637	0.0688	9.1000e-003	0.0779	0.0000	404.4211	404.4211	0.0204	0.0000	404.9317

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	0.0664	1.4013	1.7606	2.6500e-003		0.0890	0.0890		0.0890	0.0890	0.0000	231.5774	231.5774	0.0564	0.0000	232.9877
Total	0.0664	1.4013	1.7606	2.6500e-003		0.0890	0.0890		0.0890	0.0890	0.0000	231.5774	231.5774	0.0564	0.0000	232.9877

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3.4 Building Construction - 2019

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	0.0410	1.0639	0.2377	2.3300e-003	0.0540	8.1600e-003	0.0622	0.0156	7.8000e-003	0.0234	0.0000	221.3933	221.3933	0.0148	0.0000	221.7638
Worker	0.1099	0.0817	0.7970	2.0300e-003	0.2001	1.4100e-003	0.2015	0.0532	1.3000e-003	0.0545	0.0000	183.0277	183.0277	5.6100e-003	0.0000	183.1680
Total	0.1509	1.1456	1.0347	4.3600e-003	0.2541	9.5700e-003	0.2637	0.0688	9.1000e-003	0.0779	0.0000	404.4211	404.4211	0.0204	0.0000	404.9317

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1378	1.2471	1.0952	1.7500e-003		0.0726	0.0726		0.0683	0.0683	0.0000	150.5465	150.5465	0.0367	0.0000	151.4647
Total	0.1378	1.2471	1.0952	1.7500e-003		0.0726	0.0726		0.0683	0.0683	0.0000	150.5465	150.5465	0.0367	0.0000	151.4647

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0219	0.6380	0.1358	1.5300e-003	0.0356	3.5200e-003	0.0392	0.0103	3.3700e-003	0.0137	0.0000	144.9097	144.9097	8.9900e-003	0.0000	145.1345
Worker	0.0661	0.0475	0.4684	1.3000e-003	0.1320	9.0000e-004	0.1329	0.0351	8.3000e-004	0.0359	0.0000	117.0843	117.0843	3.2300e-003	0.0000	117.1650
Total	0.0880	0.6856	0.6042	2.8300e-003	0.1677	4.4200e-003	0.1721	0.0454	4.2000e-003	0.0496	0.0000	261.9939	261.9939	0.0122	0.0000	262.2995

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	0.0438	0.9247	1.1618	1.7500e-003		0.0587	0.0587		0.0587	0.0587	0.0000	150.5463	150.5463	0.0367	0.0000	151.4645
Total	0.0438	0.9247	1.1618	1.7500e-003		0.0587	0.0587		0.0587	0.0587	0.0000	150.5463	150.5463	0.0367	0.0000	151.4645

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0219	0.6380	0.1358	1.5300e-003	0.0356	3.5200e-003	0.0392	0.0103	3.3700e-003	0.0137	0.0000	144.9097	144.9097	8.9900e-003	0.0000	145.1345
Worker	0.0661	0.0475	0.4684	1.3000e-003	0.1320	9.0000e-004	0.1329	0.0351	8.3000e-004	0.0359	0.0000	117.0843	117.0843	3.2300e-003	0.0000	117.1650
Total	0.0880	0.6856	0.6042	2.8300e-003	0.1677	4.4200e-003	0.1721	0.0454	4.2000e-003	0.0496	0.0000	261.9939	261.9939	0.0122	0.0000	262.2995

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0746	0.7736	0.8059	1.2500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	110.1552	110.1552	0.0356	0.0000	111.0459
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0746	0.7736	0.8059	1.2500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	110.1552	110.1552	0.0356	0.0000	111.0459

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2900e-003	2.3600e-003	0.0233	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8277	5.8277	1.6000e-004	0.0000	5.8317
Total	3.2900e-003	2.3600e-003	0.0233	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8277	5.8277	1.6000e-004	0.0000	5.8317

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	0.0309	0.6212	0.9513	1.2500e-003		0.0335	0.0335		0.0335	0.0335	0.0000	110.1551	110.1551	0.0356	0.0000	111.0457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0309	0.6212	0.9513	1.2500e-003		0.0335	0.0335		0.0335	0.0335	0.0000	110.1551	110.1551	0.0356	0.0000	111.0457

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2900e-003	2.3600e-003	0.0233	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8277	5.8277	1.6000e-004	0.0000	5.8317
Total	3.2900e-003	2.3600e-003	0.0233	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8277	5.8277	1.6000e-004	0.0000	5.8317

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.1139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0926	0.1007	1.6000e-004		6.1000e-003	6.1000e-003		6.1000e-003	6.1000e-003	0.0000	14.0429	14.0429	1.0900e-003	0.0000	14.0701
Total	8.1273	0.0926	0.1007	1.6000e-004		6.1000e-003	6.1000e-003		6.1000e-003	6.1000e-003	0.0000	14.0429	14.0429	1.0900e-003	0.0000	14.0701

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3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0112	8.0400e-003	0.0793	2.2000e-004	0.0223	1.5000e-004	0.0225	5.9400e-003	1.4000e-004	6.0800e-003	0.0000	19.8143	19.8143	5.5000e-004	0.0000	19.8279
Total	0.0112	8.0400e-003	0.0793	2.2000e-004	0.0223	1.5000e-004	0.0225	5.9400e-003	1.4000e-004	6.0800e-003	0.0000	19.8143	19.8143	5.5000e-004	0.0000	19.8279

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	8.1139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0746	0.1008	1.6000e-004		5.2300e-003	5.2300e-003		5.2300e-003	5.2300e-003	0.0000	14.0429	14.0429	1.0900e-003	0.0000	14.0701
Total	8.1172	0.0746	0.1008	1.6000e-004		5.2300e-003	5.2300e-003		5.2300e-003	5.2300e-003	0.0000	14.0429	14.0429	1.0900e-003	0.0000	14.0701

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3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0112	8.0400e-003	0.0793	2.2000e-004	0.0223	1.5000e-004	0.0225	5.9400e-003	1.4000e-004	6.0800e-003	0.0000	19.8143	19.8143	5.5000e-004	0.0000	19.8279
Total	0.0112	8.0400e-003	0.0793	2.2000e-004	0.0223	1.5000e-004	0.0225	5.9400e-003	1.4000e-004	6.0800e-003	0.0000	19.8143	19.8143	5.5000e-004	0.0000	19.8279

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6556	11.2391	17.7945	0.0626	4.4366	0.0665	4.5031	1.1898	0.0627	1.2524	0.0000	5,765.9814	5,765.9814	0.3041	0.0000	5,773.5844
Unmitigated	1.7533	12.1974	19.9901	0.0720	5.1890	0.0764	5.2655	1.3915	0.0721	1.4636	0.0000	6,630.2799	6,630.2799	0.3294	0.0000	6,638.5154

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	4,800.00	4,996.80	4344.00	13,802,218	11,800,897
Total	4,800.00	4,996.80	4,344.00	13,802,218	11,800,897

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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546554	0.037008	0.181258	0.129446	0.020679	0.005026	0.016032	0.054515	0.001184	0.001555	0.005196	0.000618	0.000931
Other Non-Asphalt Surfaces	0.546554	0.037008	0.181258	0.129446	0.020679	0.005026	0.016032	0.054515	0.001184	0.001555	0.005196	0.000618	0.000931
Single Family Housing	0.546554	0.037008	0.181258	0.129446	0.020679	0.005026	0.016032	0.054515	0.001184	0.001555	0.005196	0.000618	0.000931

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,031.5582	1,031.5582	0.0466	9.6500e-003	1,035.6002
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,264.8617	1,264.8617	0.0572	0.0118	1,269.8178
NaturalGas Mitigated	0.0536	0.4580	0.1949	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	530.4030	530.4030	0.0102	9.7200e-003	533.5549
NaturalGas Unmitigated	0.0828	0.7075	0.3011	4.5200e-003		0.0572	0.0572		0.0572	0.0572	0.0000	819.3574	819.3574	0.0157	0.0150	824.2264

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.53542e+007	0.0828	0.7075	0.3011	4.5200e-003		0.0572	0.0572		0.0572	0.0572	0.0000	819.3574	819.3574	0.0157	0.0150	824.2264
Total		0.0828	0.7075	0.3011	4.5200e-003		0.0572	0.0572		0.0572	0.0572	0.0000	819.3574	819.3574	0.0157	0.0150	824.2264

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	9.93938e+006	0.0536	0.4580	0.1949	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	530.4030	530.4030	0.0102	9.7200e-003	533.5549
Total		0.0536	0.4580	0.1949	2.9200e-003		0.0370	0.0370		0.0370	0.0370	0.0000	530.4030	530.4030	0.0102	9.7200e-003	533.5549

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.34793e+006	1,264.8617	0.0572	0.0118	1,269.8178
Total		1,264.8617	0.0572	0.0118	1,269.8178

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.54595e+006	1,031.5582	0.0466	9.6500e-003	1,035.6002
Total		1,031.5582	0.0466	9.6500e-003	1,035.6002

6.0 Area Detail

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6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2977	0.0414	3.5759	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8219	5.8219	5.6800e-003	0.0000	5.9638
Unmitigated	4.3187	0.2209	3.6524	1.3300e-003		0.0342	0.0342		0.0342	0.0342	0.0000	213.7615	213.7615	9.6600e-003	3.8100e-003	215.1391

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.8114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.3774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0210	0.1796	0.0764	1.1500e-003		0.0145	0.0145		0.0145	0.0145	0.0000	207.9396	207.9396	3.9900e-003	3.8100e-003	209.1752
Landscaping	0.1089	0.0414	3.5759	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8219	5.8219	5.6800e-003	0.0000	5.9638
Total	4.3187	0.2209	3.6523	1.3400e-003		0.0342	0.0342		0.0342	0.0342	0.0000	213.7615	213.7615	9.6700e-003	3.8100e-003	215.1391

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.8114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.3774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1089	0.0414	3.5759	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8219	5.8219	5.6800e-003	0.0000	5.9638
Total	4.2977	0.0414	3.5759	1.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	5.8219	5.8219	5.6800e-003	0.0000	5.9638

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
- Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	70.7275	0.8181	0.0198	97.0912
Unmitigated	84.0782	1.0224	0.0248	117.0159

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.76593	4.8526	2.2000e-004	5.0000e-005	4.8716
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31.2739 / 19.7162	79.2256	1.0222	0.0247	112.1442
Total		84.0782	1.0224	0.0248	117.0159

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.4752	4.5566	2.1000e-004	4.0000e-005	4.5745
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	25.0191 / 18.5135	66.1709	0.8179	0.0198	92.5167
Total		70.7275	0.8181	0.0198	97.0912

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	55.6825	3.2907	0.0000	137.9509
Unmitigated	111.3649	6.5815	0.0000	275.9018

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.34	0.0690	4.0800e-003	0.0000	0.1710
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	548.28	111.2959	6.5774	0.0000	275.7308
Total		111.3649	6.5815	0.0000	275.9018

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0855
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	274.14	55.6479	3.2887	0.0000	137.8654
Total		55.6825	3.2907	0.0000	137.9509

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	521.0000	0.0000	0.0000	521.0000

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Hardwood Maple	500	521.0000	0.0000	0.0000	521.0000
Total		521.0000	0.0000	0.0000	521.0000