

Appendix F  
**Greenhouse Gas Emissions  
Worksheets**

# **F-1 Construction Emissions**

550 Shatto Place-Construction - South Coast AQMD Air District, Annual

**550 Shatto Place-Construction  
South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.51	1000sqft	0.06	2,507.00	0
Enclosed Parking with Elevator	329.00	Space	2.96	131,600.00	0
High Turnover (Sit Down Restaurant)	12.80	1000sqft	0.29	12,800.00	0
Apartments High Rise	256.00	Dwelling Unit	4.08	220,437.00	724

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11	<b>Operational Year</b>	2021		
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Off-road Equipment Mitigation - Cranes and Welders would be electric-powered. Forklifts would be powered by natural gas. All equipment greater than 50HP would be Tier 4 Final.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	148795	170775
tblAreaCoating	Area_Residential_Interior	446385	512325
tblConstEquipMitigation	FuelType	Diesel	Electrical



tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	140.00
tblConstructionPhase	NumDays	230.00	70.00
tblConstructionPhase	NumDays	230.00	385.00
tblConstructionPhase	NumDays	230.00	153.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	20.00	128.00
tblConstructionPhase	NumDays	20.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	NumberGas	217.60	215.05
tblFireplaces	NumberNoFireplace	25.60	25.30
tblFireplaces	NumberWood	12.80	12.65
tblGrading	AcresOfGrading	0.00	3.00
tblGrading	MaterialExported	0.00	56,000.00
tblLandUse	LandUseSquareFeet	2,510.00	2,507.00
tblLandUse	LandUseSquareFeet	256,000.00	220,437.00
tblLandUse	LotAcreage	4.13	4.08
tblLandUse	Population	732.00	724.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	117.76	116.38
tblTripsAndVMT	HaulingTripNumber	55.00	220.00
tblTripsAndVMT	HaulingTripNumber	7,000.00	8,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,090.00
tblTripsAndVMT	HaulingTripNumber	0.00	220.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	51.00	50.00
tblTripsAndVMT	VendorTripNumber	51.00	50.00
tblTripsAndVMT	VendorTripNumber	51.00	52.00
tblTripsAndVMT	VendorTripNumber	0.00	50.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT

tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblTripsAndVMT	WorkerTripNumber	5.00	100.00
tblTripsAndVMT	WorkerTripNumber	246.00	100.00
tblTripsAndVMT	WorkerTripNumber	246.00	200.00
tblTripsAndVMT	WorkerTripNumber	246.00	52.00
tblTripsAndVMT	WorkerTripNumber	49.00	50.00
tblTripsAndVMT	WorkerTripNumber	10.00	14.00
tblWater	IndoorWaterUseRate	16,679,430.56	16,483,968.48
tblWater	OutdoorWaterUseRate	10,515,293.18	10,392,067.09
tblWoodstoves	NumberCatalytic	12.80	12.65
tblWoodstoves	NumberNoncatalytic	12.80	12.65

## 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					
2019	0.2653	3.6204	1.8723	6.2700e-003	0.4636	0.1288	0.5924	0.2277	0.1192	0.3468	0.0000	588.7217	588.7217	0.1021	0.0000	591.2752
2020	0.4596	4.1370	3.4274	9.7800e-003	0.4107	0.1476	0.5584	0.1123	0.1410	0.2533	0.0000	887.2059	887.2059	0.0979	0.0000	889.6531
2021	1.2283	4.3467	3.6562	0.0111	0.3852	0.1270	0.5121	0.1030	0.1219	0.2249	0.0000	1,014.4429	1,014.4429	0.1054	0.0000	1,017.0774
<b>Maximum</b>	<b>1.2283</b>	<b>4.3467</b>	<b>3.6562</b>	<b>0.0111</b>	<b>0.4636</b>	<b>0.1476</b>	<b>0.5924</b>	<b>0.2277</b>	<b>0.1410</b>	<b>0.3468</b>	<b>0.0000</b>	<b>1,014.4429</b>	<b>1,014.4429</b>	<b>0.1054</b>	<b>0.0000</b>	<b>1,017.0774</b>

**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					
2019	0.0767	1.5131	2.0572	6.2700e-003	0.2312	9.3300e-003	0.2405	0.1025	9.1300e-003	0.1117	0.0000	588.7214	588.7214	0.1021	0.0000	591.2749
2020	0.1786	1.9231	3.8087	9.7800e-003	0.3987	0.0109	0.4096	0.1069	0.0106	0.1174	0.0000	778.1613	778.1613	0.0716	0.0000	779.9499
2021	0.9724	2.3481	4.5162	0.0111	0.3852	0.0124	0.3976	0.1030	0.0121	0.1151	0.0000	911.9715	911.9715	0.0834	0.0000	914.0569
<b>Maximum</b>	<b>0.9724</b>	<b>2.3481</b>	<b>4.5162</b>	<b>0.0111</b>	<b>0.3987</b>	<b>0.0124</b>	<b>0.4096</b>	<b>0.1069</b>	<b>0.0121</b>	<b>0.1174</b>	<b>0.0000</b>	<b>911.9715</b>	<b>911.9715</b>	<b>0.1021</b>	<b>0.0000</b>	<b>914.0569</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>37.15</b>	<b>52.21</b>	<b>-15.93</b>	<b>0.00</b>	<b>19.41</b>	<b>91.91</b>	<b>37.00</b>	<b>29.48</b>	<b>91.69</b>	<b>58.29</b>	<b>0.00</b>	<b>8.49</b>	<b>8.49</b>	<b>15.81</b>	<b>0.00</b>	<b>8.52</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-10-2019	9-9-2019	1.3896	0.4144
2	9-10-2019	12-9-2019	1.9878	0.9262
3	12-10-2019	3-9-2020	0.9751	0.5671
4	3-10-2020	6-9-2020	1.5325	0.7472
5	6-10-2020	9-9-2020	1.1363	0.4390
6	9-10-2020	12-9-2020	1.1265	0.4367
7	12-10-2020	3-9-2021	1.0999	0.4466
8	3-10-2021	6-9-2021	2.4636	1.5479
9	6-10-2021	9-9-2021	2.2469	1.3973
		<b>Highest</b>	<b>2.4636</b>	<b>1.5479</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/10/2019	8/9/2019	6	53	
2	Grading/Excavation	Grading	8/10/2019	1/6/2020	6	128	
3	Utilities/Trenching	Trenching	1/7/2020	4/8/2020	6	80	
4	Foundations	Building Construction	3/16/2020	6/4/2020	6	70	
5	Building Construction	Building Construction	6/5/2020	8/27/2021	6	385	
6	Renovation of Existing Use	Building Construction	3/3/2021	8/27/2021	6	153	
7	Architectural Coating/Finishing	Architectural Coating	3/18/2021	8/27/2021	6	140	
8	Paving	Paving	8/7/2021	8/27/2021	6	18	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 2.96**

**Residential Indoor: 446,385; Residential Outdoor: 148,795; Non-Residential Indoor: 22,961; Non-Residential Outdoor: 7,654; Striped**

#### 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	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading/Excavation	Bore/Drill Rigs	1	8.00	221	0.50
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Excavation	Sweepers/Scrubbers	1	8.00	64	0.46
Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities/Trenching	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities/Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundations	Cranes	1	8.00	231	0.29

Foundations	Forklifts	1	8.00	89	0.20
Foundations	Pumps	3	8.00	84	0.74
Foundations	Sweepers/Scrubbers	1	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating/Finishing	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Renovation of Existing Use	Aerial Lifts	1	8.00	63	0.31
Renovation of Existing Use	Forklifts	1	8.00	89	0.20
Renovation of Existing Use	Generator Sets	1	8.00	84	0.74
Renovation of Existing Use	Tractors/Loaders/Backhoes	1	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
Demolition	5	14.00	6.00	220.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Grading/Excavation	7	8.00	6.00	8,000.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Utilities/Trenching	2	100.00	50.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Foundations	7	100.00	50.00	1,090.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Building Construction	7	200.00	50.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Architectural Coating/Finishing	1	50.00	50.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Paving	4	14.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Renovation of Existing Use	4	52.00	52.00	220.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT

### 3.1 Mitigation Measures Construction

- Use Alternative Fuel for Construction Equipment
- Use Cleaner Engines for Construction Equipment
- Water Exposed Area

### 3.2 Demolition - 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					5.9100e-003	0.0000	5.9100e-003	8.9000e-004	0.0000	8.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0608	0.6009	0.3947	6.4000e-004		0.0341	0.0341		0.0319	0.0319	0.0000	56.7526	56.7526	0.0145	0.0000	57.1139
<b>Total</b>	<b>0.0608</b>	<b>0.6009</b>	<b>0.3947</b>	<b>6.4000e-004</b>	<b>5.9100e-003</b>	<b>0.0341</b>	<b>0.0400</b>	<b>8.9000e-004</b>	<b>0.0319</b>	<b>0.0327</b>	<b>0.0000</b>	<b>56.7526</b>	<b>56.7526</b>	<b>0.0145</b>	<b>0.0000</b>	<b>57.1139</b>

#### 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	9.2000e-004	0.0330	6.3500e-003	9.0000e-005	1.8900e-003	1.2000e-004	2.0100e-003	5.2000e-004	1.1000e-004	6.3000e-004	0.0000	8.3860	8.3860	5.9000e-004	0.0000	8.4007
Vendor	6.7000e-004	0.0269	4.6400e-003	5.0000e-005	9.5000e-004	7.0000e-005	1.0100e-003	2.6000e-004	6.0000e-005	3.2000e-004	0.0000	5.2583	5.2583	5.0000e-004	0.0000	5.2707
Worker	1.7900e-003	1.4200e-003	0.0155	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.7816	3.7816	1.2000e-004	0.0000	3.7845
<b>Total</b>	<b>3.3800e-003</b>	<b>0.0613</b>	<b>0.0265</b>	<b>1.8000e-004</b>	<b>6.9100e-003</b>	<b>2.2000e-004</b>	<b>7.1200e-003</b>	<b>1.8600e-003</b>	<b>2.0000e-004</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>17.4258</b>	<b>17.4258</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>17.4559</b>

### 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					2.3000e-003	0.0000	2.3000e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4500e-003	0.0323	0.3900	6.4000e-004		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	56.7526	56.7526	0.0145	0.0000	57.1138
<b>Total</b>	<b>7.4500e-003</b>	<b>0.0323</b>	<b>0.3900</b>	<b>6.4000e-004</b>	<b>2.3000e-003</b>	<b>9.9000e-004</b>	<b>3.2900e-003</b>	<b>3.5000e-004</b>	<b>9.9000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>56.7526</b>	<b>56.7526</b>	<b>0.0145</b>	<b>0.0000</b>	<b>57.1138</b>

### 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	9.2000e-004	0.0330	6.3500e-003	9.0000e-005	1.8900e-003	1.2000e-004	2.0100e-003	5.2000e-004	1.1000e-004	6.3000e-004	0.0000	8.3860	8.3860	5.9000e-004	0.0000	8.4007
Vendor	6.7000e-004	0.0269	4.6400e-003	5.0000e-005	9.5000e-004	7.0000e-005	1.0100e-003	2.6000e-004	6.0000e-005	3.2000e-004	0.0000	5.2583	5.2583	5.0000e-004	0.0000	5.2707
Worker	1.7900e-003	1.4200e-003	0.0155	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.7816	3.7816	1.2000e-004	0.0000	3.7845
<b>Total</b>	<b>3.3800e-003</b>	<b>0.0613</b>	<b>0.0265</b>	<b>1.8000e-004</b>	<b>6.9100e-003</b>	<b>2.2000e-004</b>	<b>7.1200e-003</b>	<b>1.8600e-003</b>	<b>2.0000e-004</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>17.4258</b>	<b>17.4258</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>17.4559</b>

### 3.3 Grading/Excavation - 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					0.3751	0.0000	0.3751	0.2042	0.0000	0.2042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1652	1.7394	1.1980	2.2700e-003		0.0901	0.0901		0.0829	0.0829	0.0000	204.2914	204.2914	0.0646	0.0000	205.9073
<b>Total</b>	<b>0.1652</b>	<b>1.7394</b>	<b>1.1980</b>	<b>2.2700e-003</b>	<b>0.3751</b>	<b>0.0901</b>	<b>0.4652</b>	<b>0.2042</b>	<b>0.0829</b>	<b>0.2871</b>	<b>0.0000</b>	<b>204.2914</b>	<b>204.2914</b>	<b>0.0646</b>	<b>0.0000</b>	<b>205.9073</b>

### 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	0.0320	1.1546	0.2218	2.9900e-003	0.0681	4.1800e-003	0.0723	0.0186	4.0000e-003	0.0226	0.0000	293.0338	293.0338	0.0205	0.0000	293.5474
Vendor	1.5500e-003	0.0623	0.0108	1.2000e-004	2.1900e-003	1.6000e-004	2.3500e-003	6.0000e-004	1.5000e-004	7.5000e-004	0.0000	12.2031	12.2031	1.1500e-003	0.0000	12.2319
Worker	2.3800e-003	1.8900e-003	0.0205	6.0000e-005	5.4000e-003	4.0000e-005	5.4400e-003	1.4300e-003	4.0000e-005	1.4700e-003	0.0000	5.0149	5.0149	1.6000e-004	0.0000	5.0188
<b>Total</b>	<b>0.0359</b>	<b>1.2188</b>	<b>0.2531</b>	<b>3.1700e-003</b>	<b>0.0757</b>	<b>4.3800e-003</b>	<b>0.0801</b>	<b>0.0207</b>	<b>4.1900e-003</b>	<b>0.0249</b>	<b>0.0000</b>	<b>310.2519</b>	<b>310.2519</b>	<b>0.0219</b>	<b>0.0000</b>	<b>310.7981</b>

### 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					0.1463	0.0000	0.1463	0.0797	0.0000	0.0797	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0299	0.2006	1.3876	2.2700e-003		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	204.2912	204.2912	0.0646	0.0000	205.9071
<b>Total</b>	<b>0.0299</b>	<b>0.2006</b>	<b>1.3876</b>	<b>2.2700e-003</b>	<b>0.1463</b>	<b>3.7400e-003</b>	<b>0.1500</b>	<b>0.0797</b>	<b>3.7400e-003</b>	<b>0.0834</b>	<b>0.0000</b>	<b>204.2912</b>	<b>204.2912</b>	<b>0.0646</b>	<b>0.0000</b>	<b>205.9071</b>

### 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	0.0320	1.1546	0.2218	2.9900e-003	0.0681	4.1800e-003	0.0723	0.0186	4.0000e-003	0.0226	0.0000	293.0338	293.0338	0.0205	0.0000	293.5474
Vendor	1.5500e-003	0.0623	0.0108	1.2000e-004	2.1900e-003	1.6000e-004	2.3500e-003	6.0000e-004	1.5000e-004	7.5000e-004	0.0000	12.2031	12.2031	1.1500e-003	0.0000	12.2319
Worker	2.3800e-003	1.8900e-003	0.0205	6.0000e-005	5.4000e-003	4.0000e-005	5.4400e-003	1.4300e-003	4.0000e-005	1.4700e-003	0.0000	5.0149	5.0149	1.6000e-004	0.0000	5.0188
<b>Total</b>	<b>0.0359</b>	<b>1.2188</b>	<b>0.2531</b>	<b>3.1700e-003</b>	<b>0.0757</b>	<b>4.3800e-003</b>	<b>0.0801</b>	<b>0.0207</b>	<b>4.1900e-003</b>	<b>0.0249</b>	<b>0.0000</b>	<b>310.2519</b>	<b>310.2519</b>	<b>0.0219</b>	<b>0.0000</b>	<b>310.7981</b>

### 3.3 Grading/Excavation - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0198	0.0000	0.0198	8.9300e-003	0.0000	8.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3400e-003	0.0655	0.0482	9.0000e-005		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	8.1309	8.1309	2.6300e-003	0.0000	8.1966
<b>Total</b>	<b>6.3400e-003</b>	<b>0.0655</b>	<b>0.0482</b>	<b>9.0000e-005</b>	<b>0.0198</b>	<b>3.3600e-003</b>	<b>0.0232</b>	<b>8.9300e-003</b>	<b>3.0900e-003</b>	<b>0.0120</b>	<b>0.0000</b>	<b>8.1309</b>	<b>8.1309</b>	<b>2.6300e-003</b>	<b>0.0000</b>	<b>8.1966</b>

#### 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	1.2000e-003	0.0439	8.7400e-003	1.2000e-004	0.0524	1.4000e-004	0.0526	0.0130	1.3000e-004	0.0131	0.0000	11.7913	11.7913	8.1000e-004	0.0000	11.8116
Vendor	6.0000e-005	2.4000e-003	4.2000e-004	1.0000e-005	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.4921	0.4921	4.0000e-005	0.0000	0.4932
Worker	9.0000e-005	7.0000e-005	7.6000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1975	0.1975	1.0000e-005	0.0000	0.1977
<b>Total</b>	<b>1.3500e-003</b>	<b>0.0463</b>	<b>9.9200e-003</b>	<b>1.3000e-004</b>	<b>0.0527</b>	<b>1.5000e-004</b>	<b>0.0529</b>	<b>0.0130</b>	<b>1.3000e-004</b>	<b>0.0132</b>	<b>0.0000</b>	<b>12.4809</b>	<b>12.4809</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>12.5024</b>

#### 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					7.7300e-003	0.0000	7.7300e-003	3.4800e-003	0.0000	3.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2200e-003	8.1600e-003	0.0564	9.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	8.1309	8.1309	2.6300e-003	0.0000	8.1966
<b>Total</b>	<b>1.2200e-003</b>	<b>8.1600e-003</b>	<b>0.0564</b>	<b>9.0000e-005</b>	<b>7.7300e-003</b>	<b>1.5000e-004</b>	<b>7.8800e-003</b>	<b>3.4800e-003</b>	<b>1.5000e-004</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>8.1309</b>	<b>8.1309</b>	<b>2.6300e-003</b>	<b>0.0000</b>	<b>8.1966</b>

### 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	1.2000e-003	0.0439	8.7400e-003	1.2000e-004	0.0524	1.4000e-004	0.0526	0.0130	1.3000e-004	0.0131	0.0000	11.7913	11.7913	8.1000e-004	0.0000	11.8116
Vendor	6.0000e-005	2.4000e-003	4.2000e-004	1.0000e-005	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.4921	0.4921	4.0000e-005	0.0000	0.4932
Worker	9.0000e-005	7.0000e-005	7.6000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1975	0.1975	1.0000e-005	0.0000	0.1977
<b>Total</b>	<b>1.3500e-003</b>	<b>0.0463</b>	<b>9.9200e-003</b>	<b>1.3000e-004</b>	<b>0.0527</b>	<b>1.5000e-004</b>	<b>0.0529</b>	<b>0.0130</b>	<b>1.3000e-004</b>	<b>0.0132</b>	<b>0.0000</b>	<b>12.4809</b>	<b>12.4809</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>12.5024</b>

### 3.4 Utilities/Trenching - 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	0.0192	0.1773	0.1707	2.3000e-004		0.0128	0.0128		0.0118	0.0118	0.0000	19.8472	19.8472	6.4200e-003	0.0000	20.0077
<b>Total</b>	<b>0.0192</b>	<b>0.1773</b>	<b>0.1707</b>	<b>2.3000e-004</b>		<b>0.0128</b>	<b>0.0128</b>		<b>0.0118</b>	<b>0.0118</b>	<b>0.0000</b>	<b>19.8472</b>	<b>19.8472</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>20.0077</b>

#### 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	7.6700e-003	0.3198	0.0558	6.7000e-004	0.0119	6.7000e-004	0.0126	3.2700e-003	6.4000e-004	3.9100e-003	0.0000	65.6131	65.6131	5.9400e-003	0.0000	65.7616
Worker	0.0179	0.0137	0.1515	4.4000e-004	0.0439	3.4000e-004	0.0442	0.0117	3.1000e-004	0.0120	0.0000	39.5066	39.5066	1.1300e-003	0.0000	39.5350
<b>Total</b>	<b>0.0255</b>	<b>0.3335</b>	<b>0.2073</b>	<b>1.1100e-003</b>	<b>0.0558</b>	<b>1.0100e-003</b>	<b>0.0568</b>	<b>0.0149</b>	<b>9.5000e-004</b>	<b>0.0159</b>	<b>0.0000</b>	<b>105.1197</b>	<b>105.1197</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>105.2966</b>

**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	4.0100e-003	0.0635	0.1705	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	19.8472	19.8472	6.4200e-003	0.0000	20.0077
<b>Total</b>	<b>4.0100e-003</b>	<b>0.0635</b>	<b>0.1705</b>	<b>2.3000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>19.8472</b>	<b>19.8472</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>20.0077</b>

**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	7.6700e-003	0.3198	0.0558	6.7000e-004	0.0119	6.7000e-004	0.0126	3.2700e-003	6.4000e-004	3.9100e-003	0.0000	65.6131	65.6131	5.9400e-003	0.0000	65.7616
Worker	0.0179	0.0137	0.1515	4.4000e-004	0.0439	3.4000e-004	0.0442	0.0117	3.1000e-004	0.0120	0.0000	39.5066	39.5066	1.1300e-003	0.0000	39.5350
<b>Total</b>	<b>0.0255</b>	<b>0.3335</b>	<b>0.2073</b>	<b>1.1100e-003</b>	<b>0.0558</b>	<b>1.0100e-003</b>	<b>0.0568</b>	<b>0.0149</b>	<b>9.5000e-004</b>	<b>0.0159</b>	<b>0.0000</b>	<b>105.1197</b>	<b>105.1197</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>105.2966</b>

**3.5 Foundations - 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	0.0821	0.7598	0.6598	1.1400e-003		0.0441	0.0441		0.0423	0.0423	0.0000	99.1557	99.1557	0.0164	0.0000	99.5663
<b>Total</b>	<b>0.0821</b>	<b>0.7598</b>	<b>0.6598</b>	<b>1.1400e-003</b>		<b>0.0441</b>	<b>0.0441</b>		<b>0.0423</b>	<b>0.0423</b>	<b>0.0000</b>	<b>99.1557</b>	<b>99.1557</b>	<b>0.0164</b>	<b>0.0000</b>	<b>99.5663</b>

**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	4.1900e-003	0.1529	0.0305	4.2000e-004	9.3700e-003	4.8000e-004	9.8500e-003	2.5700e-003	4.6000e-004	3.0300e-003	0.0000	41.1279	41.1279	2.8300e-003	0.0000	41.1987
Vendor	6.7100e-003	0.2798	0.0488	5.9000e-004	0.0104	5.9000e-004	0.0110	2.8600e-003	5.6000e-004	3.4200e-003	0.0000	57.4115	57.4115	5.2000e-003	0.0000	57.5414
Worker	0.0156	0.0120	0.1326	3.8000e-004	0.0384	3.0000e-004	0.0387	0.0102	2.7000e-004	0.0105	0.0000	34.5683	34.5683	9.9000e-004	0.0000	34.5931
<b>Total</b>	<b>0.0265</b>	<b>0.4447</b>	<b>0.2119</b>	<b>1.3900e-003</b>	<b>0.0582</b>	<b>1.3700e-003</b>	<b>0.0595</b>	<b>0.0156</b>	<b>1.2900e-003</b>	<b>0.0169</b>	<b>0.0000</b>	<b>133.1077</b>	<b>133.1077</b>	<b>9.0200e-003</b>	<b>0.0000</b>	<b>133.3333</b>

**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	0.0111	0.1191	0.9096	1.1400e-003		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	82.8526	82.8526	0.0112	0.0000	83.1315
<b>Total</b>	<b>0.0111</b>	<b>0.1191</b>	<b>0.9096</b>	<b>1.1400e-003</b>		<b>1.9000e-003</b>	<b>1.9000e-003</b>		<b>1.9000e-003</b>	<b>1.9000e-003</b>	<b>0.0000</b>	<b>82.8526</b>	<b>82.8526</b>	<b>0.0112</b>	<b>0.0000</b>	<b>83.1315</b>

**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	4.1900e-003	0.1529	0.0305	4.2000e-004	9.3700e-003	4.8000e-004	9.8500e-003	2.5700e-003	4.6000e-004	3.0300e-003	0.0000	41.1279	41.1279	2.8300e-003	0.0000	41.1987
Vendor	6.7100e-003	0.2798	0.0488	5.9000e-004	0.0104	5.9000e-004	0.0110	2.8600e-003	5.6000e-004	3.4200e-003	0.0000	57.4115	57.4115	5.2000e-003	0.0000	57.5414
Worker	0.0156	0.0120	0.1326	3.8000e-004	0.0384	3.0000e-004	0.0387	0.0102	2.7000e-004	0.0105	0.0000	34.5683	34.5683	9.9000e-004	0.0000	34.5931
<b>Total</b>	<b>0.0265</b>	<b>0.4447</b>	<b>0.2119</b>	<b>1.3900e-003</b>	<b>0.0582</b>	<b>1.3700e-003</b>	<b>0.0595</b>	<b>0.0156</b>	<b>1.2900e-003</b>	<b>0.0169</b>	<b>0.0000</b>	<b>133.1077</b>	<b>133.1077</b>	<b>9.0200e-003</b>	<b>0.0000</b>	<b>133.3333</b>

### 3.6 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	0.2009	1.5288	1.3124	2.2200e-003		0.0818	0.0818		0.0786	0.0786	0.0000	183.9545	183.9545	0.0370	0.0000	184.8790
<b>Total</b>	<b>0.2009</b>	<b>1.5288</b>	<b>1.3124</b>	<b>2.2200e-003</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0786</b>	<b>0.0786</b>	<b>0.0000</b>	<b>183.9545</b>	<b>183.9545</b>	<b>0.0370</b>	<b>0.0000</b>	<b>184.8790</b>

#### 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	0.0173	0.7195	0.1255	1.5100e-003	0.0268	1.5100e-003	0.0283	7.3500e-003	1.4400e-003	8.7900e-003	0.0000	147.6295	147.6295	0.0134	0.0000	147.9637
Worker	0.0804	0.0616	0.6817	1.9700e-003	0.1975	1.5300e-003	0.1990	0.0525	1.4100e-003	0.0539	0.0000	177.7799	177.7799	5.1000e-003	0.0000	177.9074
<b>Total</b>	<b>0.0976</b>	<b>0.7811</b>	<b>0.8073</b>	<b>3.4800e-003</b>	<b>0.2242</b>	<b>3.0400e-003</b>	<b>0.2273</b>	<b>0.0598</b>	<b>2.8500e-003</b>	<b>0.0626</b>	<b>0.0000</b>	<b>325.4094</b>	<b>325.4094</b>	<b>0.0185</b>	<b>0.0000</b>	<b>325.8711</b>

#### 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	0.0112	0.1268	1.4359	2.2200e-003		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	91.2130	91.2130	0.0159	0.0000	91.6108
<b>Total</b>	<b>0.0112</b>	<b>0.1268</b>	<b>1.4359</b>	<b>2.2200e-003</b>		<b>2.9200e-003</b>	<b>2.9200e-003</b>		<b>2.9200e-003</b>	<b>2.9200e-003</b>	<b>0.0000</b>	<b>91.2130</b>	<b>91.2130</b>	<b>0.0159</b>	<b>0.0000</b>	<b>91.6108</b>

### 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	0.0173	0.7195	0.1255	1.5100e-003	0.0268	1.5100e-003	0.0283	7.3500e-003	1.4400e-003	8.7900e-003	0.0000	147.6295	147.6295	0.0134	0.0000	147.9637
Worker	0.0804	0.0616	0.6817	1.9700e-003	0.1975	1.5300e-003	0.1990	0.0525	1.4100e-003	0.0539	0.0000	177.7799	177.7799	5.1000e-003	0.0000	177.9074
<b>Total</b>	<b>0.0976</b>	<b>0.7811</b>	<b>0.8073</b>	<b>3.4800e-003</b>	<b>0.2242</b>	<b>3.0400e-003</b>	<b>0.2273</b>	<b>0.0598</b>	<b>2.8500e-003</b>	<b>0.0626</b>	<b>0.0000</b>	<b>325.4094</b>	<b>325.4094</b>	<b>0.0185</b>	<b>0.0000</b>	<b>325.8711</b>

### 3.6 Building Construction - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.6008	1.4608	2.5300e-003		0.0802	0.0802		0.0770	0.0770	0.0000	209.5112	209.5112	0.0408	0.0000	210.5312
<b>Total</b>	<b>0.2045</b>	<b>1.6008</b>	<b>1.4608</b>	<b>2.5300e-003</b>		<b>0.0802</b>	<b>0.0802</b>		<b>0.0770</b>	<b>0.0770</b>	<b>0.0000</b>	<b>209.5112</b>	<b>209.5112</b>	<b>0.0408</b>	<b>0.0000</b>	<b>210.5312</b>

#### 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	0.0187	0.7740	0.1398	1.7000e-003	0.0305	1.5300e-003	0.0320	8.3700e-003	1.4600e-003	9.8300e-003	0.0000	166.4034	166.4034	0.0148	0.0000	166.7723
Worker	0.0855	0.0632	0.7144	2.1700e-003	0.2249	1.6900e-003	0.2266	0.0597	1.5500e-003	0.0613	0.0000	195.9103	195.9103	5.2500e-003	0.0000	196.0417
<b>Total</b>	<b>0.1041</b>	<b>0.8372</b>	<b>0.8542</b>	<b>3.8700e-003</b>	<b>0.2554</b>	<b>3.2200e-003</b>	<b>0.2586</b>	<b>0.0681</b>	<b>3.0100e-003</b>	<b>0.0711</b>	<b>0.0000</b>	<b>362.3137</b>	<b>362.3137</b>	<b>0.0200</b>	<b>0.0000</b>	<b>362.8140</b>

### 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	0.0125	0.1354	1.6250	2.5300e-003		3.0700e-003	3.0700e-003		3.0700e-003	3.0700e-003	0.0000	103.8937	103.8937	0.0178	0.0000	104.3392
<b>Total</b>	<b>0.0125</b>	<b>0.1354</b>	<b>1.6250</b>	<b>2.5300e-003</b>		<b>3.0700e-003</b>	<b>3.0700e-003</b>		<b>3.0700e-003</b>	<b>3.0700e-003</b>	<b>0.0000</b>	<b>103.8937</b>	<b>103.8937</b>	<b>0.0178</b>	<b>0.0000</b>	<b>104.3392</b>

### 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	0.0187	0.7740	0.1398	1.7000e-003	0.0305	1.5300e-003	0.0320	8.3700e-003	1.4600e-003	9.8300e-003	0.0000	166.4034	166.4034	0.0148	0.0000	166.7723
Worker	0.0855	0.0632	0.7144	2.1700e-003	0.2249	1.6900e-003	0.2266	0.0597	1.5500e-003	0.0613	0.0000	195.9103	195.9103	5.2500e-003	0.0000	196.0417
<b>Total</b>	<b>0.1041</b>	<b>0.8372</b>	<b>0.8542</b>	<b>3.8700e-003</b>	<b>0.2554</b>	<b>3.2200e-003</b>	<b>0.2586</b>	<b>0.0681</b>	<b>3.0100e-003</b>	<b>0.0711</b>	<b>0.0000</b>	<b>362.3137</b>	<b>362.3137</b>	<b>0.0200</b>	<b>0.0000</b>	<b>362.8140</b>

## 3.7 Renovation of Existing Use - 2021

### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0544	0.5234	0.6278	9.9000e-004		0.0287	0.0287		0.0274	0.0274	0.0000	85.6798	85.6798	0.0159	0.0000	86.0781
<b>Total</b>	<b>0.0544</b>	<b>0.5234</b>	<b>0.6278</b>	<b>9.9000e-004</b>		<b>0.0287</b>	<b>0.0287</b>		<b>0.0274</b>	<b>0.0274</b>	<b>0.0000</b>	<b>85.6798</b>	<b>85.6798</b>	<b>0.0159</b>	<b>0.0000</b>	<b>86.0781</b>

**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	8.1000e-004	0.0287	6.0800e-003	8.0000e-005	1.8900e-003	9.0000e-005	1.9800e-003	5.2000e-004	8.0000e-005	6.0000e-004	0.0000	8.2137	8.2137	5.6000e-004	0.0000	8.2278
Vendor	0.0145	0.6008	0.1085	1.3200e-003	0.0237	1.1900e-003	0.0248	6.5000e-003	1.1400e-003	7.6300e-003	0.0000	129.1615	129.1615	0.0115	0.0000	129.4478
Worker	0.0166	0.0123	0.1386	4.2000e-004	0.0436	3.3000e-004	0.0440	0.0116	3.0000e-004	0.0119	0.0000	38.0162	38.0162	1.0200e-003	0.0000	38.0416
<b>Total</b>	<b>0.0319</b>	<b>0.6417</b>	<b>0.2532</b>	<b>1.8200e-003</b>	<b>0.0692</b>	<b>1.6100e-003</b>	<b>0.0708</b>	<b>0.0186</b>	<b>1.5200e-003</b>	<b>0.0201</b>	<b>0.0000</b>	<b>175.3913</b>	<b>175.3913</b>	<b>0.0130</b>	<b>0.0000</b>	<b>175.7172</b>

**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	0.0125	0.1733	1.3103	9.9000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	88.8259	88.8259	0.0170	0.0000	89.2497
<b>Total</b>	<b>0.0125</b>	<b>0.1733</b>	<b>1.3103</b>	<b>9.9000e-004</b>		<b>2.5000e-003</b>	<b>2.5000e-003</b>		<b>2.5000e-003</b>	<b>2.5000e-003</b>	<b>0.0000</b>	<b>88.8259</b>	<b>88.8259</b>	<b>0.0170</b>	<b>0.0000</b>	<b>89.2497</b>

**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	8.1000e-004	0.0287	6.0800e-003	8.0000e-005	1.8900e-003	9.0000e-005	1.9800e-003	5.2000e-004	8.0000e-005	6.0000e-004	0.0000	8.2137	8.2137	5.6000e-004	0.0000	8.2278
Vendor	0.0145	0.6008	0.1085	1.3200e-003	0.0237	1.1900e-003	0.0248	6.5000e-003	1.1400e-003	7.6300e-003	0.0000	129.1615	129.1615	0.0115	0.0000	129.4478
Worker	0.0166	0.0123	0.1386	4.2000e-004	0.0436	3.3000e-004	0.0440	0.0116	3.0000e-004	0.0119	0.0000	38.0162	38.0162	1.0200e-003	0.0000	38.0416
<b>Total</b>	<b>0.0319</b>	<b>0.6417</b>	<b>0.2532</b>	<b>1.8200e-003</b>	<b>0.0692</b>	<b>1.6100e-003</b>	<b>0.0708</b>	<b>0.0186</b>	<b>1.5200e-003</b>	<b>0.0201</b>	<b>0.0000</b>	<b>175.3913</b>	<b>175.3913</b>	<b>0.0130</b>	<b>0.0000</b>	<b>175.7172</b>

### 3.8 Architectural Coating/Finishing - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.1425	0.1696	2.8000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	23.8304	23.8304	1.6400e-003	0.0000	23.8713
<b>Total</b>	<b>0.7993</b>	<b>0.1425</b>	<b>0.1696</b>	<b>2.8000e-004</b>		<b>8.7800e-003</b>	<b>8.7800e-003</b>		<b>8.7800e-003</b>	<b>8.7800e-003</b>	<b>0.0000</b>	<b>23.8304</b>	<b>23.8304</b>	<b>1.6400e-003</b>	<b>0.0000</b>	<b>23.8713</b>

#### 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	0.0128	0.5286	0.0955	1.1600e-003	0.0208	1.0400e-003	0.0219	5.7200e-003	1.0000e-003	6.7200e-003	0.0000	113.6413	113.6413	0.0101	0.0000	113.8933
Worker	0.0146	0.0108	0.1220	3.7000e-004	0.0384	2.9000e-004	0.0387	0.0102	2.7000e-004	0.0105	0.0000	33.4481	33.4481	9.0000e-004	0.0000	33.4705
<b>Total</b>	<b>0.0274</b>	<b>0.5394</b>	<b>0.2174</b>	<b>1.5300e-003</b>	<b>0.0592</b>	<b>1.3300e-003</b>	<b>0.0605</b>	<b>0.0159</b>	<b>1.2700e-003</b>	<b>0.0172</b>	<b>0.0000</b>	<b>147.0894</b>	<b>147.0894</b>	<b>0.0110</b>	<b>0.0000</b>	<b>147.3638</b>

#### 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	0.7789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7700e-003	0.0120	0.1710	2.8000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	23.8303	23.8303	1.6400e-003	0.0000	23.8712
<b>Total</b>	<b>0.7817</b>	<b>0.0120</b>	<b>0.1710</b>	<b>2.8000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>23.8303</b>	<b>23.8303</b>	<b>1.6400e-003</b>	<b>0.0000</b>	<b>23.8712</b>

### 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	0.0128	0.5286	0.0955	1.1600e-003	0.0208	1.0400e-003	0.0219	5.7200e-003	1.0000e-003	6.7200e-003	0.0000	113.6413	113.6413	0.0101	0.0000	113.8933
Worker	0.0146	0.0108	0.1220	3.7000e-004	0.0384	2.9000e-004	0.0387	0.0102	2.7000e-004	0.0105	0.0000	33.4481	33.4481	9.0000e-004	0.0000	33.4705
<b>Total</b>	<b>0.0274</b>	<b>0.5394</b>	<b>0.2174</b>	<b>1.5300e-003</b>	<b>0.0592</b>	<b>1.3300e-003</b>	<b>0.0605</b>	<b>0.0159</b>	<b>1.2700e-003</b>	<b>0.0172</b>	<b>0.0000</b>	<b>147.0894</b>	<b>147.0894</b>	<b>0.0110</b>	<b>0.0000</b>	<b>147.3638</b>

### 3.9 Paving - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1800e-003	0.0615	0.0687	1.1000e-004		3.1800e-003	3.1800e-003		2.9300e-003	2.9300e-003	0.0000	9.4230	9.4230	2.9600e-003	0.0000	9.4969
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.1800e-003</b>	<b>0.0615</b>	<b>0.0687</b>	<b>1.1000e-004</b>		<b>3.1800e-003</b>	<b>3.1800e-003</b>		<b>2.9300e-003</b>	<b>2.9300e-003</b>	<b>0.0000</b>	<b>9.4230</b>	<b>9.4230</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>9.4969</b>

#### 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	5.3000e-004	3.9000e-004	4.3900e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2041	1.2041	3.0000e-005	0.0000	1.2049
<b>Total</b>	<b>5.3000e-004</b>	<b>3.9000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.3800e-003</b>	<b>1.0000e-005</b>	<b>1.3900e-003</b>	<b>3.7000e-004</b>	<b>1.0000e-005</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>1.2041</b>	<b>1.2041</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.2049</b>

**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	1.7900e-003	8.7800e-003	0.0806	1.1000e-004		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	9.4230	9.4230	2.9600e-003	0.0000	9.4969
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.7900e-003</b>	<b>8.7800e-003</b>	<b>0.0806</b>	<b>1.1000e-004</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>9.4230</b>	<b>9.4230</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>9.4969</b>

**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	5.3000e-004	3.9000e-004	4.3900e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2041	1.2041	3.0000e-005	0.0000	1.2049
<b>Total</b>	<b>5.3000e-004</b>	<b>3.9000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.3800e-003</b>	<b>1.0000e-005</b>	<b>1.3900e-003</b>	<b>3.7000e-004</b>	<b>1.0000e-005</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>1.2041</b>	<b>1.2041</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.2049</b>

550 Shatto Place

Construction GHG Emissions

<b>Construction Year</b>	<b>MTCO2e/year</b>
2019	591
2020	890
2021	1017
Total	2498
<b>30-Year Amortization</b>	<b>83</b>

## **F-2 Existing Operational Emissions**

550 Shatto Place-Existing Emissions - South Coast AQMD Air District, Annual

**550 Shatto Place-Existing Emissions**  
**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	170.00	Student	0.33	14,212.57	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MWhr)</b>	1227.89	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Vehicle Trips - Trip Rate based on Traffic Study

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	0.00	2.11
tblVehicleTrips	SU_TR	0.00	2.11
tblVehicleTrips	WD_TR	1.29	2.11

## 2.0 Emissions Summary

### 2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0582	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003
Energy	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	54.7496	54.7496	1.2600e-003	3.7000e-004	54.8924
Mobile	0.1495	0.8056	2.0640	6.2000e-003	0.4698	7.5100e-003	0.4773	0.1259	7.0800e-003	0.1330	0.0000	570.4188	570.4188	0.0320	0.0000	571.2196
Waste						0.0000	0.0000		0.0000	0.0000	6.2968	0.0000	6.2968	0.3721	0.0000	15.6000
Water						0.0000	0.0000		0.0000	0.0000	0.1308	9.5463	9.6770	0.0137	3.6000e-004	10.1268
<b>Total</b>	<b>0.2084</b>	<b>0.8128</b>	<b>2.0722</b>	<b>6.2400e-003</b>	<b>0.4698</b>	<b>8.0700e-003</b>	<b>0.4778</b>	<b>0.1259</b>	<b>7.6400e-003</b>	<b>0.1336</b>	<b>6.4275</b>	<b>634.7189</b>	<b>641.1464</b>	<b>0.4191</b>	<b>7.3000e-004</b>	<b>651.8433</b>

### 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	0.0582	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003
Energy	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	54.7496	54.7496	1.2600e-003	3.7000e-004	54.8924
Mobile	0.1495	0.8056	2.0640	6.2000e-003	0.4698	7.5100e-003	0.4773	0.1259	7.0800e-003	0.1330	0.0000	570.4188	570.4188	0.0320	0.0000	571.2196
Waste						0.0000	0.0000		0.0000	0.0000	6.2968	0.0000	6.2968	0.3721	0.0000	15.6000
Water						0.0000	0.0000		0.0000	0.0000	0.1308	9.5463	9.6770	0.0137	3.6000e-004	10.1268
<b>Total</b>	<b>0.2084</b>	<b>0.8128</b>	<b>2.0722</b>	<b>6.2400e-003</b>	<b>0.4698</b>	<b>8.0700e-003</b>	<b>0.4778</b>	<b>0.1259</b>	<b>7.6400e-003</b>	<b>0.1336</b>	<b>6.4275</b>	<b>634.7189</b>	<b>641.1464</b>	<b>0.4191</b>	<b>7.3000e-004</b>	<b>651.8433</b>

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

## 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
Mitigated	0.1495	0.8056	2.0640	6.2000e-003	0.4698	7.5100e-003	0.4773	0.1259	7.0800e-003	0.1330	0.0000	570.4188	570.4188	0.0320	0.0000	571.2196
Unmitigated	0.1495	0.8056	2.0640	6.2000e-003	0.4698	7.5100e-003	0.4773	0.1259	7.0800e-003	0.1330	0.0000	570.4188	570.4188	0.0320	0.0000	571.2196

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	358.70	358.70	358.70	1,236,218	1,236,218
Total	358.70	358.70	358.70	1,236,218	1,236,218

## 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
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	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	46.8619	46.8619	1.1100e-003	2.3000e-004	46.9578
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.8619	46.8619	1.1100e-003	2.3000e-004	46.9578
NaturalGas Mitigated	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346
NaturalGas Unmitigated	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Elementary School	147811	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346
Total		8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346

### Mitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Elementary School	147811	8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346
Total		8.0000e-004	7.2500e-003	6.0900e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	7.8877	7.8877	1.5000e-004	1.4000e-004	7.9346

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	84138.4	46.8619	1.1100e-003	2.3000e-004	46.9578
<b>Total</b>		<b>46.8619</b>	<b>1.1100e-003</b>	<b>2.3000e-004</b>	<b>46.9578</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	84138.4	46.8619	1.1100e-003	2.3000e-004	46.9578
<b>Total</b>		<b>46.8619</b>	<b>1.1100e-003</b>	<b>2.3000e-004</b>	<b>46.9578</b>

## 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	0.0582	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003
Unmitigated	0.0582	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003

## 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	6.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003
<b>Total</b>	<b>0.0582</b>	<b>2.0000e-005</b>	<b>2.2000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2200e-003</b>	<b>4.2200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.5100e-003</b>

### 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	6.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.2200e-003	4.2200e-003	1.0000e-005	0.0000	4.5100e-003
<b>Total</b>	<b>0.0582</b>	<b>2.0000e-005</b>	<b>2.2000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2200e-003</b>	<b>4.2200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.5100e-003</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6770	0.0137	3.6000e-004	10.1268
Unmitigated	9.6770	0.0137	3.6000e-004	10.1268

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.412121 / 1.05974	9.6770	0.0137	3.6000e-004	10.1268
<b>Total</b>		<b>9.6770</b>	<b>0.0137</b>	<b>3.6000e-004</b>	<b>10.1268</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.412121 / 1.05974	9.6770	0.0137	3.6000e-004	10.1268
<b>Total</b>		<b>9.6770</b>	<b>0.0137</b>	<b>3.6000e-004</b>	<b>10.1268</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.2968	0.3721	0.0000	15.6000
Unmitigated	6.2968	0.3721	0.0000	15.6000

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	31.02	6.2968	0.3721	0.0000	15.6000
<b>Total</b>		<b>6.2968</b>	<b>0.3721</b>	<b>0.0000</b>	<b>15.6000</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	31.02	6.2968	0.3721	0.0000	15.6000
<b>Total</b>		<b>6.2968</b>	<b>0.3721</b>	<b>0.0000</b>	<b>15.6000</b>

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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550 Shatto Place

Existing Site GHG Emissions excluding cars and light-duty trucks

<b>Category</b>	<b>MTCO<sub>2</sub>e/year</b>
Area	0
Electricity	47
Natural Gas	8
Mobile	121
Waste	16
Water	10
<b>Existing Site Total</b>	<b>202</b>

## **F-3 Project Operational Emissions**

550 Shatto Place-Operations - South Coast AQMD Air District, Annual

**550 Shatto Place-Operations**  
**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.51	1000sqft	0.06	2,507.00	0
Enclosed Parking with Elevator	329.00	Space	2.96	131,600.00	0
City Park	0.06	Acre	0.06	2,570.04	0
Fast Food Restaurant w/o Drive Thru	1.50	1000sqft	0.03	1,500.00	0
High Turnover (Sit Down Restaurant)	11.30	1000sqft	0.26	11,300.00	0
Apartments High Rise	256.00	Dwelling Unit	4.13	220,437.00	732
Health Club	2.07	1000sqft	0.05	2,070.00	0
Recreational Swimming Pool	5.33	1000sqft	0.12	5,330.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11	<b>Operational Year</b>		2021	
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics -
- Land Use - Actual Apartment sqft
- Vehicle Trips - Trip Rates based on Project's Traffic Study
- Woodstoves - Architectural designs show no fireplaces.
- Energy Mitigation - Project would use Energy STAR appliances
- Water Mitigation - Project would use low flow fixtures
- Waste Mitigation - Based on Sustainability City pLAN

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	217.60	0.00
tblFireplaces	NumberNoFireplace	25.60	256.00
tblFireplaces	NumberWood	12.80	0.00
tblLandUse	LandUseSquareFeet	2,510.00	2,507.00
tblLandUse	LandUseSquareFeet	2,613.60	2,570.04
tblLandUse	LandUseSquareFeet	256,000.00	220,437.00
tblVehicleTrips	ST_TR	4.98	2.07
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	696.00	109.70
tblVehicleTrips	ST_TR	2.46	9.74
tblVehicleTrips	ST_TR	158.37	68.64
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	3.65	2.07

tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	500.00	109.70
tblVehicleTrips	SU_TR	1.05	9.74
tblVehicleTrips	SU_TR	131.84	68.64
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	4.20	2.07
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	716.00	109.70
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	68.64
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblWoodstoves	NumberCatalytic	12.80	0.00
tblWoodstoves	NumberNoncatalytic	12.80	0.00

## 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	tons/yr										MT/yr					
Area	1.0273	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263
Energy	0.0290	0.2566	0.1705	1.5800e-003		0.0200	0.0200		0.0200	0.0200	0.0000	1,626.6943	1,626.6943	0.0371	0.0118	1,631.1413
Mobile	0.3970	2.0935	4.5513	0.0156	1.2329	0.0129	1.2457	0.3304	0.0120	0.3424	0.0000	1,441.2621	1,441.2621	0.0762	0.0000	1,443.1678
Waste						0.0000	0.0000		0.0000	0.0000	63.7453	0.0000	63.7453	3.7672	0.0000	157.9262
Water						0.0000	0.0000		0.0000	0.0000	6.8046	225.9439	232.7485	0.7042	0.0176	255.6011
<b>Total</b>	<b>1.4533</b>	<b>2.3807</b>	<b>7.3720</b>	<b>0.0173</b>	<b>1.2329</b>	<b>0.0475</b>	<b>1.2804</b>	<b>0.3304</b>	<b>0.0466</b>	<b>0.3770</b>	<b>70.5499</b>	<b>3,298.2215</b>	<b>3,368.7713</b>	<b>4.5890</b>	<b>0.0294</b>	<b>3,492.2626</b>

### 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	1.0273	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263
Energy	0.0290	0.2566	0.1705	1.5800e-003		0.0200	0.0200		0.0200	0.0200	0.0000	1,611.9584	1,611.9584	0.0368	0.0117	1,616.3753
Mobile	0.3970	2.0935	4.5513	0.0156	1.2329	0.0129	1.2457	0.3304	0.0120	0.3424	0.0000	1,441.2621	1,441.2621	0.0762	0.0000	1,443.1678
Waste						0.0000	0.0000		0.0000	0.0000	12.7491	0.0000	12.7491	0.7535	0.0000	31.5852
Water						0.0000	0.0000		0.0000	0.0000	5.4437	194.8342	200.2779	0.5637	0.0142	218.5888
<b>Total</b>	<b>1.4533</b>	<b>2.3807</b>	<b>7.3720</b>	<b>0.0173</b>	<b>1.2329</b>	<b>0.0475</b>	<b>1.2804</b>	<b>0.3304</b>	<b>0.0466</b>	<b>0.3770</b>	<b>18.1927</b>	<b>3,252.3759</b>	<b>3,270.5687</b>	<b>1.4344</b>	<b>0.0259</b>	<b>3,314.1434</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>74.21</b>	<b>1.39</b>	<b>2.92</b>	<b>68.74</b>	<b>12.00</b>	<b>5.10</b>

## 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	0.3970	2.0935	4.5513	0.0156	1.2329	0.0129	1.2457	0.3304	0.0120	0.3424	0.0000	1,441.2621	1,441.2621	0.0762	0.0000	1,443.1678
Unmitigated	0.3970	2.0935	4.5513	0.0156	1.2329	0.0129	1.2457	0.3304	0.0120	0.3424	0.0000	1,441.2621	1,441.2621	0.0762	0.0000	1,443.1678

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	529.92	529.92	529.92	1,810,817	1,810,817
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	164.55	164.55	164.55	298,007	298,007
General Office Building	24.45	24.45	24.45	78,756	78,756
High Turnover (Sit Down Restaurant)	775.63	775.63	775.63	1,057,055	1,057,055
Health Club	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
<b>Total</b>	<b>1,494.55</b>	<b>1,494.55</b>	<b>1,494.55</b>	<b>3,244,636</b>	<b>3,244,636</b>

## 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
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
City Park	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Enclosed Parking with Elevator	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Fast Food Restaurant w/o Drive Thru	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
General Office Building	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
High Turnover (Sit Down Restaurant)	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Health Club	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Recreational Swimming Pool	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

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	1,325.0303	1,325.0303	0.0313	6.4700e-003	1,327.7421
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,339.7662	1,339.7662	0.0316	6.5500e-003	1,342.5082
Natural Gas Mitigated	0.0290	0.2566	0.1705	1.5800e-003		0.0200	0.0200		0.0200	0.0200	0.0000	286.9281	286.9281	5.5000e-003	5.2600e-003	288.6332
Natural Gas Unmitigated	0.0290	0.2566	0.1705	1.5800e-003		0.0200	0.0200		0.0200	0.0200	0.0000	286.9281	286.9281	5.5000e-003	5.2600e-003	288.6332

## 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					
Apartments High Rise	2.35954e+006	0.0127	0.1087	0.0463	6.9000e-004		8.7900e-003	8.7900e-003		8.7900e-003	8.7900e-003	0.0000	125.9139	125.9139	2.4100e-003	2.3100e-003	126.6621
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
Enclosed Parking with Elevator	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
Fast Food Restaurant w/o	346140	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4714	18.4714	3.5000e-004	3.4000e-004	18.5811
General Office Building	26097.9	1.4000e-004	1.2800e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3927	1.3927	3.0000e-005	3.0000e-005	1.4010
Health Club	37467	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9994	1.9994	4.0000e-005	4.0000e-005	2.0113
High Turnover (Sit Down Restaurant)	2.60759e+006	0.0141	0.1278	0.1074	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003	0.0000	139.1508	139.1508	2.6700e-003	2.5500e-003	139.9777
Recreational Swimming Pool	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
<b>Total</b>		<b>0.0290</b>	<b>0.2566</b>	<b>0.1705</b>	<b>1.5800e-003</b>		<b>0.0200</b>	<b>0.0200</b>		<b>0.0200</b>	<b>0.0200</b>	<b>0.0000</b>	<b>286.9281</b>	<b>286.9281</b>	<b>5.5000e-003</b>	<b>5.2700e-003</b>	<b>288.6332</b>

### 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					
Apartments High Rise	2.35954e+006	0.0127	0.1087	0.0463	6.9000e-004		8.7900e-003	8.7900e-003		8.7900e-003	8.7900e-003	0.0000	125.9139	125.9139	2.4100e-003	2.3100e-003	126.6621
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
Enclosed Parking with Elevator	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
Fast Food Restaurant w/o	346140	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4714	18.4714	3.5000e-004	3.4000e-004	18.5811
General Office Building	26097.9	1.4000e-004	1.2800e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3927	1.3927	3.0000e-005	3.0000e-005	1.4010
Health Club	37467	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9994	1.9994	4.0000e-005	4.0000e-005	2.0113
High Turnover (Sit Down Restaurant)	2.60759e+006	0.0141	0.1278	0.1074	7.7000e-004		9.7100e-003	9.7100e-003		9.7100e-003	9.7100e-003	0.0000	139.1508	139.1508	2.6700e-003	2.5500e-003	139.9777
Recreational Swimming Pool	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
<b>Total</b>		<b>0.0290</b>	<b>0.2566</b>	<b>0.1705</b>	<b>1.5800e-003</b>		<b>0.0200</b>	<b>0.0200</b>		<b>0.0200</b>	<b>0.0200</b>	<b>0.0000</b>	<b>286.9281</b>	<b>286.9281</b>	<b>5.5000e-003</b>	<b>5.2700e-003</b>	<b>288.6332</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.01378e+006	564.6367	0.0133	2.7600e-003	565.7923
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	771176	429.5154	0.0101	2.1000e-003	430.3944
Fast Food Restaurant w/o	66210	36.8764	8.7000e-004	1.8000e-004	36.9519
General Office Building	32565.9	18.1380	4.3000e-004	9.0000e-005	18.1751
Health Club	22977	12.7973	3.0000e-004	6.0000e-005	12.8235
High Turnover (Sit Down Restaurant)	498782	277.8024	6.5600e-003	1.3600e-003	278.3709
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,339.7662</b>	<b>0.0316</b>	<b>6.5500e-003</b>	<b>1,342.5082</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	987323	549.9009	0.0130	2.6900e-003	551.0263
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	771176	429.5154	0.0101	2.1000e-003	430.3944
Fast Food Restaurant w/o	66210	36.8764	8.7000e-004	1.8000e-004	36.9519
General Office Building	32565.9	18.1380	4.3000e-004	9.0000e-005	18.1751
Health Club	22977	12.7973	3.0000e-004	6.0000e-005	12.8235
High Turnover (Sit Down Restaurant)	498782	277.8024	6.5600e-003	1.3600e-003	278.3709
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,325.0303</b>	<b>0.0313</b>	<b>6.4800e-003</b>	<b>1,327.7421</b>

### 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	1.0273	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263
Unmitigated	1.0273	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263

## 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	0.0789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8679					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	0.0806	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263
<b>Total</b>	<b>1.0273</b>	<b>0.0306</b>	<b>2.6503</b>	<b>1.4000e-004</b>		<b>0.0146</b>	<b>0.0146</b>		<b>0.0146</b>	<b>0.0146</b>	<b>0.0000</b>	<b>4.3212</b>	<b>4.3212</b>	<b>4.2000e-003</b>	<b>0.0000</b>	<b>4.4263</b>

### 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	0.0789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8679					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	0.0806	0.0306	2.6503	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3212	4.3212	4.2000e-003	0.0000	4.4263
<b>Total</b>	<b>1.0273</b>	<b>0.0306</b>	<b>2.6503</b>	<b>1.4000e-004</b>		<b>0.0146</b>	<b>0.0146</b>		<b>0.0146</b>	<b>0.0146</b>	<b>0.0000</b>	<b>4.3212</b>	<b>4.3212</b>	<b>4.2000e-003</b>	<b>0.0000</b>	<b>4.4263</b>

## 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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	200.2779	0.5637	0.0142	218.5888
Unmitigated	232.7485	0.7042	0.0176	255.6011

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	16.6794 / 10.5153	191.3211	0.5479	0.0137	209.1136
City Park	0 / 0.0714889	0.4424	1.0000e-005	0.0000	0.4433
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	0.455301 / 0.0290617	3.6262	0.0149	3.7000e-004	4.1086
General Office Building	0.446112 / 0.273423	5.0687	0.0147	3.7000e-004	5.5445
Health Club	0.122426 / 0.0750355	1.3910	4.0200e-003	1.0000e-004	1.5216
High Turnover (Sit Down Restaurant)	3.42993 / 0.218932	27.3174	0.1124	2.7700e-003	30.9516
Recreational Swimming Pool	0.315233 / 0.193207	3.5817	0.0104	2.6000e-004	3.9179
<b>Total</b>		<b>232.7485</b>	<b>0.7042</b>	<b>0.0176</b>	<b>255.6011</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	13.3435 / 10.5153	166.0703	0.4386	0.0111	180.3309
City Park	0 / 0.0714889	0.4424	1.0000e-005	0.0000	0.4433
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	0.36424 / 0.0290617	2.9369	0.0119	2.9000e-004	3.3229
General Office Building	0.356889 / 0.273423	4.3934	0.0117	3.0000e-004	4.7747
Health Club	0.097941 / 0.0750355	1.2057	3.2200e-003	8.0000e-005	1.3103
High Turnover (Sit Down Restaurant)	2.74394 / 0.218932	22.1249	0.0899	2.2200e-003	25.0328
Recreational Swimming Pool	0.252186 / 0.193207	3.1045	8.2900e-003	2.1000e-004	3.3739
<b>Total</b>		<b>200.2779</b>	<b>0.5637</b>	<b>0.0142</b>	<b>218.5888</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.7491	0.7535	0.0000	31.5852
Unmitigated	63.7453	3.7672	0.0000	157.9262

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	117.76	23.9042	1.4127	0.0000	59.2217
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	17.28	3.5077	0.2073	0.0000	8.6901
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Health Club	11.8	2.3953	0.1416	0.0000	5.9342
High Turnover (Sit Down Restaurant)	134.47	27.2962	1.6132	0.0000	67.6252
Recreational Swimming Pool	30.38	6.1669	0.3645	0.0000	15.2782
<b>Total</b>		<b>63.7453</b>	<b>3.7672</b>	<b>0.0000</b>	<b>157.9262</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	23.552	4.7808	0.2825	0.0000	11.8443
City Park	0.002	4.1000e-004	2.0000e-005	0.0000	1.0100e-003
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	3.456	0.7015	0.0415	0.0000	1.7380
General Office Building	0.466	0.0946	5.5900e-003	0.0000	0.2344
Health Club	2.36	0.4791	0.0283	0.0000	1.1869
High Turnover (Sit Down Restaurant)	26.894	5.4592	0.3226	0.0000	13.5250
Recreational Swimming Pool	6.076	1.2334	0.0729	0.0000	3.0556
<b>Total</b>		<b>12.7491</b>	<b>0.7534</b>	<b>0.0000</b>	<b>31.5852</b>

## 9.0 Operational Offroad

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

### Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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550 Shatto Place

Project GHG Emissions excluding cars and light-duty trucks

<b>Category</b>	<b>MTCO<sub>2</sub>e/year</b>
Area	4
Electricity	1328
Natural Gas	289
Mobile	299
Waste	32
Water	219
Stationary	32
Construction	83
<b>Project Emissions</b>	<b>2285</b>
Existing Site Emissions	202
<b>Net Total</b>	<b>2083</b>