

# **Greenhouse Gas Emissions CalEEMod Modelling Outputs**

*Prepared by:*



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## Summary

The proposed project site is currently developed with ten commercial buildings, an asphalt parking lot and driveways, and associated landscaping. The existing commercial buildings generate GHG emissions from electricity use, water use, and heating/cooling as well as from motor vehicles traveling to and from the site. The proposed project would replace four rows of parking spaces with a new 31,744 square foot building consistent with the City's General Plan Land Use/Transportation Diagram.

The proposed project would result in minor increases in GHGs associated with construction activities including operation of construction equipment and emissions from construction workers' personal vehicles traveling to and from the construction site. BAAQMD has identified two significance thresholds for determining if a project will have a significant GHG emissions impact under 2020 conditions set by AB 32. These thresholds are:

- the "bright-line" threshold of 1,100 metric tons of CO<sub>2</sub>e per year; and
- the "efficiency" threshold of 4.6 metric tons of CO<sub>2</sub>e per service population (e.g., residents and employees) per year.

The numeric CEQA thresholds set by BAAQMD were calculated to achieve the state's 2020 target for GHG emissions level (and not the SB 32 2030 target of 40 percent below the 1990 GHG emissions level). The project may not be fully constructed and occupied until after December 31, 2020. Because the project could be completed in the post-2020 timeframe, the current BAAQMD thresholds do not apply. Rather, a Substantial Progress bright-line threshold of 2.6 MT CO<sub>2</sub>e/year/service population has been calculated for 2030 based on the GHG reduction goals of SB 32 and Executive Order B-30-15, taking into account the 1990 inventory and the projected 2030 statewide population and employment levels. For the purposes of this analysis, a Substantial Progress efficiency metric of 660 MTCO<sub>2</sub>e/year has been calculated for 2030.

Operational GHG emissions for the proposed project were estimated using the CalEEMod model, along with the project vehicle trip generation rates. The model provided long-term operational emissions estimates associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. The proposed project's land uses were input into CalEEMod, including 20,748 square feet of office space and 10,996 square feet of retail space (See Attachment A). Annual emissions resulting from project operations are shown in Table 1 below.

Source Category	Project in 2030
Area	0.01
Energy Consumption	84.3
Mobile	275.8
Solid Waste Generation	15.5
Water Usage	10.6
Total	386
<i>2030 Brightline Threshold</i>	<i>660</i>
<i>Significant?</i>	<i>No</i>

As seen in Table 1 above, the proposed project would not exceed the 660 MT CO<sub>2</sub>e/year bright-line threshold in 2030. Therefore, implementation of the proposed project would not result in a GHG emissions impact.

# Attachment A

Tropicana Shopping Center Expansion - Operational Emissions - Santa Clara County, Annual

**Tropicana Shopping Center Expansion - Operational Emissions  
Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	20.75	1000sqft	0.61	20,748.00	71
Strip Mall	11.00	1000sqft	0.25	10,996.00	27

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2021
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	290	<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 - The 290 lb/MWh CO2 intensity factor is based on PG&E's most recent factor.

Land Use - Service population for retail space is based on 2.5 employees per 1,000 square feet.

Service population for office space is based on 3.4 employees per 1,000 square feet

Lot acreage, based on total site size

Vehicle Trips - Weekday, 9.74 trips per 1,000 square feet for office and 37.75 for retail: Institute of Transportation Engineers. Trip General Manual, 10th Edition. Volume 2. Land Uses 710 (office) and 820 (retail).

Energy Use -

Mobile Land Use Mitigation -

Construction Phase - Building construction is based on the project's construction schedule.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	175.00
tblConstructionPhase	PhaseEndDate	10/17/2019	1/30/2020
tblConstructionPhase	PhaseEndDate	10/3/2019	1/16/2020
tblConstructionPhase	PhaseEndDate	10/10/2019	1/23/2020
tblConstructionPhase	PhaseStartDate	10/11/2019	1/24/2020
tblConstructionPhase	PhaseStartDate	10/4/2019	1/17/2020
tblLandUse	LandUseSquareFeet	20,750.00	20,748.00
tblLandUse	LotAcreage	0.48	0.61
tblLandUse	Population	0.00	71.00
tblLandUse	Population	0.00	27.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	44.32	37.75

## 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	0.0893	0.9103	0.7013	1.1800e-003	0.0107	0.0532	0.0638	3.0700e-003	0.0490	0.0521	0.0000	107.0050	107.0050	0.0284	0.0000	107.7155
2020	0.1737	0.0791	0.0704	1.2000e-004	1.0700e-003	4.4200e-003	5.4900e-003	2.9000e-004	4.1000e-003	4.3900e-003	0.0000	10.5227	10.5227	2.7300e-003	0.0000	10.5909
<b>Maximum</b>	<b>0.1737</b>	<b>0.9103</b>	<b>0.7013</b>	<b>1.1800e-003</b>	<b>0.0107</b>	<b>0.0532</b>	<b>0.0638</b>	<b>3.0700e-003</b>	<b>0.0490</b>	<b>0.0521</b>	<b>0.0000</b>	<b>107.0050</b>	<b>107.0050</b>	<b>0.0284</b>	<b>0.0000</b>	<b>107.7155</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	0.0893	0.9103	0.7013	1.1800e-003	0.0107	0.0532	0.0638	3.0700e-003	0.0490	0.0521	0.0000	107.0049	107.0049	0.0284	0.0000	107.7154
2020	0.1737	0.0791	0.0704	1.2000e-004	1.0700e-003	4.4200e-003	5.4900e-003	2.9000e-004	4.1000e-003	4.3900e-003	0.0000	10.5227	10.5227	2.7300e-003	0.0000	10.5909
<b>Maximum</b>	<b>0.1737</b>	<b>0.9103</b>	<b>0.7013</b>	<b>1.1800e-003</b>	<b>0.0107</b>	<b>0.0532</b>	<b>0.0638</b>	<b>3.0700e-003</b>	<b>0.0490</b>	<b>0.0521</b>	<b>0.0000</b>	<b>107.0049</b>	<b>107.0049</b>	<b>0.0284</b>	<b>0.0000</b>	<b>107.7154</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>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-30-2019	7-29-2019	0.3620	0.3620
2	7-30-2019	10-29-2019	0.3776	0.3776
3	10-30-2019	1-29-2020	0.4844	0.4844
4	1-30-2020	4-29-2020	0.0243	0.0243
		<b>Highest</b>	0.4844	0.4844

**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	0.1406	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004
Energy	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	83.6400	83.6400	6.7900e-003	1.6800e-003	84.3116

Mobile	0.1268	0.5005	1.3338	4.1500e-003	0.3635	3.6600e-003	0.3672	0.0973	3.4200e-003	0.1007	0.0000	379.4647	379.4647	0.0141	0.0000	379.8161
Waste						0.0000	0.0000		0.0000	0.0000	6.2623	0.0000	6.2623	0.3701	0.0000	15.5145
Water						0.0000	0.0000		0.0000	0.0000	1.4285	4.4755	5.9041	0.1472	3.5600e-003	10.6433
<b>Total</b>	<b>0.2693</b>	<b>0.5184</b>	<b>1.3491</b>	<b>4.2600e-003</b>	<b>0.3635</b>	<b>5.0200e-003</b>	<b>0.3685</b>	<b>0.0973</b>	<b>4.7800e-003</b>	<b>0.1021</b>	<b>7.6908</b>	<b>467.5808</b>	<b>475.2716</b>	<b>0.5381</b>	<b>5.2400e-003</b>	<b>490.2861</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	0.1406	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004
Energy	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	83.6400	83.6400	6.7900e-003	1.6800e-003	84.3116
Mobile	0.1161	0.4267	1.0628	3.0100e-003	0.2545	2.7400e-003	0.2572	0.0681	2.5500e-003	0.0707	0.0000	275.5620	275.5620	0.0112	0.0000	275.8427
Waste						0.0000	0.0000		0.0000	0.0000	6.2623	0.0000	6.2623	0.3701	0.0000	15.5145
Water						0.0000	0.0000		0.0000	0.0000	1.4285	4.4755	5.9041	0.1472	3.5600e-003	10.6433
<b>Total</b>	<b>0.2586</b>	<b>0.4446</b>	<b>1.0781</b>	<b>3.1200e-003</b>	<b>0.2545</b>	<b>4.1000e-003</b>	<b>0.2586</b>	<b>0.0681</b>	<b>3.9100e-003</b>	<b>0.0720</b>	<b>7.6908</b>	<b>363.6780</b>	<b>371.3688</b>	<b>0.5353</b>	<b>5.2400e-003</b>	<b>386.3127</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
Percent Reduction	3.95	14.24	20.09	26.76	30.00	18.33	29.84	30.00	18.20	29.44	0.00	22.22	21.86	0.52	0.00	21.21

### 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	4/30/2019	5/13/2019	5	10	



2	Site Preparation	Site Preparation	5/14/2019	5/14/2019	5	1
3	Grading	Grading	5/15/2019	5/16/2019	5	2
4	Building Construction	Building Construction	5/17/2019	1/16/2020	5	175
5	Paving	Paving	1/17/2020	1/23/2020	5	5
6	Architectural Coating	Architectural Coating	1/24/2020	1/30/2020	5	5

**Acres of Grading (Site Preparation Phase): 0.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 47,616; Non-Residential Outdoor: 15,872; Striped Parking Area: 0**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	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	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 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					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>4.7700e-003</b>	<b>0.0430</b>	<b>0.0385</b>	<b>6.0000e-005</b>		<b>2.6900e-003</b>	<b>2.6900e-003</b>		<b>2.5600e-003</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</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
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.4000e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3510</b>	<b>0.3510</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3513</b>

**Mitigated Construction On-Site**

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
Category	tons/yr										MT/yr					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>4.7700e-003</b>	<b>0.0430</b>	<b>0.0385</b>	<b>6.0000e-005</b>		<b>2.6900e-003</b>	<b>2.6900e-003</b>		<b>2.5600e-003</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</b>

**Mitigated Construction Off-Site**

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
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513

Total	1.8000e-004	1.4000e-004	1.4000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3510	0.3510	1.0000e-005	0.0000	0.3513
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### 3.3 Site Preparation - 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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
<b>Total</b>	<b>3.6000e-004</b>	<b>4.4600e-003</b>	<b>2.0700e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>1.8000e-004</b>	<b>4.5000e-004</b>	<b>3.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.4378</b>	<b>0.4378</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4413</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	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0176	0.0176	0.0000	0.0000	0.0176
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0176</b>	<b>0.0176</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0176</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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
<b>Total</b>	<b>3.6000e-004</b>	<b>4.4600e-003</b>	<b>2.0700e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>1.8000e-004</b>	<b>4.5000e-004</b>	<b>3.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.4378</b>	<b>0.4378</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4413</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	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0176	0.0176	0.0000	0.0000	0.0176
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0176</b>	<b>0.0176</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0176</b>

### 3.4 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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>9.5000e-004</b>	<b>8.6000e-003</b>	<b>7.6900e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>5.4000e-004</b>	<b>1.2900e-003</b>	<b>4.1000e-004</b>	<b>5.1000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</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	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0702	0.0702	0.0000	0.0000	0.0703
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0702</b>	<b>0.0702</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0703</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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>9.5000e-004</b>	<b>8.6000e-003</b>	<b>7.6900e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>5.4000e-004</b>	<b>1.2900e-003</b>	<b>4.1000e-004</b>	<b>5.1000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</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	4.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0702	0.0702	0.0000	0.0000	0.0703
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0702</b>	<b>0.0702</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0703</b>

**3.5 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	0.0780	0.8004	0.6148	9.3000e-004		0.0493	0.0493		0.0454	0.0454	0.0000	83.3749	83.3749	0.0264	0.0000	84.0344
<b>Total</b>	<b>0.0780</b>	<b>0.8004</b>	<b>0.6148</b>	<b>9.3000e-004</b>		<b>0.0493</b>	<b>0.0493</b>		<b>0.0454</b>	<b>0.0454</b>	<b>0.0000</b>	<b>83.3749</b>	<b>83.3749</b>	<b>0.0264</b>	<b>0.0000</b>	<b>84.0344</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
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-003	0.0515	0.0138	1.1000e-004	2.6800e-003	3.7000e-004	3.0500e-003	7.7000e-004	3.5000e-004	1.1300e-003	0.0000	10.7194	10.7194	5.3000e-004	0.0000	10.7327
Worker	2.9600e-003	2.2000e-003	0.0228	6.0000e-005	6.4600e-003	4.0000e-005	6.5100e-003	1.7200e-003	4.0000e-005	1.7600e-003	0.0000	5.7220	5.7220	1.6000e-004	0.0000	5.7259
<b>Total</b>	<b>4.9600e-003</b>	<b>0.0537</b>	<b>0.0366</b>	<b>1.7000e-004</b>	<b>9.1400e-003</b>	<b>4.1000e-004</b>	<b>9.5600e-003</b>	<b>2.4900e-003</b>	<b>3.9000e-004</b>	<b>2.8900e-003</b>	<b>0.0000</b>	<b>16.4413</b>	<b>16.4413</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>16.4585</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	0.0780	0.8004	0.6148	9.3000e-004		0.0493	0.0493		0.0454	0.0454	0.0000	83.3748	83.3748	0.0264	0.0000	84.0343
<b>Total</b>	<b>0.0780</b>	<b>0.8004</b>	<b>0.6148</b>	<b>9.3000e-004</b>		<b>0.0493</b>	<b>0.0493</b>		<b>0.0454</b>	<b>0.0454</b>	<b>0.0000</b>	<b>83.3748</b>	<b>83.3748</b>	<b>0.0264</b>	<b>0.0000</b>	<b>84.0343</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	2.0000e-003	0.0515	0.0138	1.1000e-004	2.6800e-003	3.7000e-004	3.0500e-003	7.7000e-004	3.5000e-004	1.1300e-003	0.0000	10.7194	10.7194	5.3000e-004	0.0000	10.7327
Worker	2.9600e-003	2.2000e-003	0.0228	6.0000e-005	6.4600e-003	4.0000e-005	6.5100e-003	1.7200e-003	4.0000e-005	1.7600e-003	0.0000	5.7220	5.7220	1.6000e-004	0.0000	5.7259



Total	4.9600e-003	0.0537	0.0366	1.7000e-004	9.1400e-003	4.1000e-004	9.5600e-003	2.4900e-003	3.9000e-004	2.8900e-003	0.0000	16.4413	16.4413	6.9000e-004	0.0000	16.4585
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### 3.5 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	5.1700e-003	0.0531	0.0443	7.0000e-005		3.1300e-003	3.1300e-003		2.8800e-003	2.8800e-003	0.0000	6.0036	6.0036	1.9400e-003	0.0000	6.0522
<b>Total</b>	<b>5.1700e-003</b>	<b>0.0531</b>	<b>0.0443</b>	<b>7.0000e-005</b>		<b>3.1300e-003</b>	<b>3.1300e-003</b>		<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>0.0000</b>	<b>6.0036</b>	<b>6.0036</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.0522</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	1.2000e-004	3.4200e-003	9.1000e-004	1.0000e-005	2.0000e-004	2.0000e-005	2.1000e-004	6.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7843	0.7843	4.0000e-005	0.0000	0.7852
Worker	2.0000e-004	1.4000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4081	0.4081	1.0000e-005	0.0000	0.4083
<b>Total</b>	<b>3.2000e-004</b>	<b>3.5600e-003</b>	<b>2.4100e-003</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>1.9000e-004</b>	<b>2.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.1924</b>	<b>1.1924</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.1936</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	5.1700e-003	0.0531	0.0443	7.0000e-005		3.1300e-003	3.1300e-003		2.8800e-003	2.8800e-003	0.0000	6.0036	6.0036	1.9400e-003	0.0000	6.0522
<b>Total</b>	<b>5.1700e-003</b>	<b>0.0531</b>	<b>0.0443</b>	<b>7.0000e-005</b>		<b>3.1300e-003</b>	<b>3.1300e-003</b>		<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>0.0000</b>	<b>6.0036</b>	<b>6.0036</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>6.0522</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	1.2000e-004	3.4200e-003	9.1000e-004	1.0000e-005	2.0000e-004	2.0000e-005	2.1000e-004	6.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7843	0.7843	4.0000e-005	0.0000	0.7852
Worker	2.0000e-004	1.4000e-004	1.5000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4081	0.4081	1.0000e-005	0.0000	0.4083
<b>Total</b>	<b>3.2000e-004</b>	<b>3.5600e-003</b>	<b>2.4100e-003</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>1.9000e-004</b>	<b>2.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.1924</b>	<b>1.1924</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.1936</b>

**3.6 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	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
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>1.9300e-003</b>	<b>0.0181</b>	<b>0.0178</b>	<b>3.0000e-005</b>		<b>9.9000e-004</b>	<b>9.9000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.3482</b>	<b>2.3482</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.3653</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	1.5000e-004	1.1000e-004	1.1300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3061	0.3061	1.0000e-005	0.0000	0.3063
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3061</b>	<b>0.3061</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3063</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	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
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>1.9300e-003</b>	<b>0.0181</b>	<b>0.0178</b>	<b>3.0000e-005</b>		<b>9.9000e-004</b>	<b>9.9000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.3482</b>	<b>2.3482</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.3653</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	1.5000e-004	1.1000e-004	1.1300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3061	0.3061	1.0000e-005	0.0000	0.3063
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3061</b>	<b>0.3061</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3063</b>

**3.7 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	0.1655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
<b>Total</b>	<b>0.1661</b>	<b>4.2100e-003</b>	<b>4.5800e-003</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6396</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
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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	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0340	0.0340	0.0000	0.0000	0.0340
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0340</b>	<b>0.0340</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0340</b>

**Mitigated Construction On-Site**

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
Category	tons/yr										MT/yr					
Archit. Coating	0.1655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
<b>Total</b>	<b>0.1661</b>	<b>4.2100e-003</b>	<b>4.5800e-003</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6396</b>

**Mitigated Construction Off-Site**

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
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	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0340	0.0340	0.0000	0.0000	0.0340

Total	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0340	0.0340	0.0000	0.0000	0.0340
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## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive 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	0.1161	0.4267	1.0628	3.0100e-003	0.2545	2.7400e-003	0.2572	0.0681	2.5500e-003	0.0707	0.0000	275.5620	275.5620	0.0112	0.0000	275.8427
Unmitigated	0.1268	0.5005	1.3338	4.1500e-003	0.3635	3.6600e-003	0.3672	0.0973	3.4200e-003	0.1007	0.0000	379.4647	379.4647	0.0141	0.0000	379.8161

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	202.11	51.05	21.79	369,851	258,896
Strip Mall	415.10	462.27	224.65	607,744	425,421
Total	617.20	513.32	246.44	977,595	684,317

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Strip Mall	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

#### 5.0 Energy Detail

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1245	64.1245	6.4100e-003	1.3300e-003	64.6802
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1245	64.1245	6.4100e-003	1.3300e-003	64.6802
NaturalGas Mitigated	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	19.5154	19.5154	3.7000e-004	3.6000e-004	19.6314
NaturalGas Unmitigated	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	19.5154	19.5154	3.7000e-004	3.6000e-004	19.6314

#### 5.2 Energy by Land Use - NaturalGas

##### Unmitigated

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

General Office Building	339645	1.8300e-003	0.0167	0.0140	1.0000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	18.1247	18.1247	3.5000e-004	3.3000e-004	18.2324
Strip Mall	26060.5	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	1.3907	1.3907	3.0000e-005	3.0000e-005	1.3990
<b>Total</b>		<b>1.9700e-003</b>	<b>0.0179</b>	<b>0.0151</b>	<b>1.1000e-004</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>19.5154</b>	<b>19.5154</b>	<b>3.8000e-004</b>	<b>3.6000e-004</b>	<b>19.6314</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	339645	1.8300e-003	0.0167	0.0140	1.0000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	18.1247	18.1247	3.5000e-004	3.3000e-004	18.2324
Strip Mall	26060.5	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	1.3907	1.3907	3.0000e-005	3.0000e-005	1.3990
<b>Total</b>		<b>1.9700e-003</b>	<b>0.0179</b>	<b>0.0151</b>	<b>1.1000e-004</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>19.5154</b>	<b>19.5154</b>	<b>3.8000e-004</b>	<b>3.6000e-004</b>	<b>19.6314</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	369937	48.6622	4.8700e-003	1.0100e-003	49.0838
Strip Mall	117547	15.4624	1.5500e-003	3.2000e-004	15.5964
<b>Total</b>		<b>64.1245</b>	<b>6.4200e-003</b>	<b>1.3300e-003</b>	<b>64.6802</b>



**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	369937	48.6622	4.8700e-003	1.0100e-003	49.0838
Strip Mall	117547	15.4624	1.5500e-003	3.2000e-004	15.5964
<b>Total</b>		<b>64.1245</b>	<b>6.4200e-003</b>	<b>1.3300e-003</b>	<b>64.6802</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	0.1406	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004
Unmitigated	0.1406	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004

**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	0.0166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004
<b>Total</b>	<b>0.1406</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-004</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	0.0166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.7000e-004	5.7000e-004	0.0000	0.0000	6.0000e-004
<b>Total</b>	<b>0.1406</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-004</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e

Category	MT/yr			
Mitigated	5.9041	0.1472	3.5600e-003	10.6433
Unmitigated	5.9041	0.1472	3.5600e-003	10.6433

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.68798 / 2.26037	4.8357	0.1205	2.9100e-003	8.7174
Strip Mall	0.814798 / 0.499392	1.0684	0.0266	6.4000e-004	1.9260
<b>Total</b>		<b>5.9041</b>	<b>0.1472</b>	<b>3.5500e-003</b>	<b>10.6433</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.68798 / 2.26037	4.8357	0.1205	2.9100e-003	8.7174
Strip Mall	0.814798 / 0.499392	1.0684	0.0266	6.4000e-004	1.9260
<b>Total</b>		<b>5.9041</b>	<b>0.1472</b>	<b>3.5500e-003</b>	<b>10.6433</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.2623	0.3701	0.0000	15.5145
Unmitigated	6.2623	0.3701	0.0000	15.5145

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	19.3	3.9177	0.2315	0.0000	9.7060
Strip Mall	11.55	2.3446	0.1386	0.0000	5.8085
<b>Total</b>		<b>6.2623</b>	<b>0.3701</b>	<b>0.0000</b>	<b>15.5145</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	19.3	3.9177	0.2315	0.0000	9.7060
Strip Mall	11.55	2.3446	0.1386	0.0000	5.8085
<b>Total</b>		<b>6.2623</b>	<b>0.3701</b>	<b>0.0000</b>	<b>15.5145</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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