

# APPENDIX A

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AIR QUALITY AND GREENHOUSE GAS DATA

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Townes at Orange  
Orange County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	13.00	Space	0.12	5,200.00	0
City Park	0.20	Acre	0.20	8,617.00	0
Condo/Townhouse	24.00	Dwelling Unit	0.98	42,696.00	69

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2024
<b>Utility Company</b>	Anaheim Public Utilities				
<b>CO2 Intensity (lb/MW hr)</b>	1543.28	<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 - Based on site plans
- Construction Phase - Based on Construction Questionnaire
- Trips and VMT - Based on construction questionnaire
- Demolition -
- Grading -
- Vehicle Trips - Based on Trip Generation Table
- Woodstoves - No wood burning fireplaces per SCAQMD rules.
- Construction Off-road Equipment Mitigation - SCAQMD rule compliance
- Water Mitigation -
- Waste Mitigation - per AB 939
- Area Mitigation -

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	4.00	42.00
tblConstructionPhase	NumDays	200.00	175.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	10.00	43.00
tblGrading	MaterialExported	0.00	1,624.00
tblGrading	MaterialImported	0.00	1,624.00
tblLandUse	LandUseSquareFeet	8,712.00	8,617.00
tblLandUse	LandUseSquareFeet	24,000.00	42,696.00
tblLandUse	LotAcreage	1.50	0.98
tblTripsAndVMT	HaulingTripLength	20.00	13.60
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	6.74

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	7.9265	41.0671	30.2326	0.0716	14.7398	1.6971	16.4369	6.7052	1.5705	8.2757	0.0000	7,055.0589	7,055.0589	1.8588	0.1306	7,140.4532
Maximum	7.9265	41.0671	30.2326	0.0716	14.7398	1.6971	16.4369	6.7052	1.5705	8.2757	0.0000	7,055.0589	7,055.0589	1.8588	0.1306	7,140.4532

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	7.9265	41.0671	30.2326	0.0716	6.5943	1.6971	8.2914	2.9458	1.5705	4.5163	0.0000	7,055.0589	7,055.0589	1.8588	0.1306	7,140.4531
Maximum	7.9265	41.0671	30.2326	0.0716	6.5943	1.6971	8.2914	2.9458	1.5705	4.5163	0.0000	7,055.0589	7,055.0589	1.8588	0.1306	7,140.4531

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.26	0.00	49.56	56.07	0.00	45.43	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

Townes at Orange - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.2698	0.5208	14.1858	0.0312		1.8443	1.8443		1.8443	1.8443	224.8060	435.5681	660.3742	0.6738	0.0153	681.7672
Energy	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Mobile	0.4386	0.4456	4.4532	0.0107	1.1647	7.1100e-003	1.1718	0.3105	6.6100e-003	0.3171		1,102.9136	1,102.9136	0.0624	0.0422	1,117.0377
<b>Total</b>	<b>7.7200</b>	<b>1.0664</b>	<b>18.6816</b>	<b>0.0425</b>	<b>1.1647</b>	<b>1.8595</b>	<b>3.0242</b>	<b>0.3105</b>	<b>1.8590</b>	<b>2.1694</b>	<b>224.8060</b>	<b>1,666.1628</b>	<b>1,890.9689</b>	<b>0.7387</b>	<b>0.0598</b>	<b>1,927.2447</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0228	0.3811	2.1330	2.3900e-003		0.0399	0.0399		0.0399	0.0399	0.0000	460.9799	460.9799	0.0122	8.3900e-003	463.7838
Energy	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Mobile	0.4386	0.4456	4.4532	0.0107	1.1647	7.1100e-003	1.1718	0.3105	6.6100e-003	0.3171		1,102.9136	1,102.9136	0.0624	0.0422	1,117.0377
<b>Total</b>	<b>1.4731</b>	<b>0.9268</b>	<b>6.6288</b>	<b>0.0137</b>	<b>1.1647</b>	<b>0.0551</b>	<b>1.2199</b>	<b>0.3105</b>	<b>0.0546</b>	<b>0.3651</b>	<b>0.0000</b>	<b>1,691.5746</b>	<b>1,691.5746</b>	<b>0.0771</b>	<b>0.0529</b>	<b>1,709.2613</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	80.92	13.10	64.52	67.83	0.00	97.03	59.66	0.00	97.06	83.17	100.00	-1.53	10.54	89.57	11.50	11.31

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	2/29/2024	5	44	
2	Site Preparation	Site Preparation	1/1/2024	2/29/2024	5	44	
3	Grading	Grading	2/1/2024	3/29/2024	5	42	
4	Building Construction	Building Construction	4/1/2024	11/29/2024	5	175	
5	Paving	Paving	5/1/2024	5/31/2024	5	23	
6	Architectural Coating	Architectural Coating	8/1/2024	9/30/2024	5	43	

Acres of Grading (Site Preparation Phase): 41.25

Acres of Grading (Grading Phase): 42

Acres of Paving: 0.12

Residential Indoor: 86,459; Residential Outdoor: 28,820; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 312 (Architectural

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**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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	23	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	168.00	14.70	6.90	13.60	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	406.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8245	0.0000	0.8245	0.1248	0.0000	0.1248			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895		2,324.9459	2,324.9459	0.5884		2,339.6562
<b>Total</b>	<b>1.4397</b>	<b>13.8867</b>	<b>13.4879</b>	<b>0.0241</b>	<b>0.8245</b>	<b>0.6311</b>	<b>1.4556</b>	<b>0.1248</b>	<b>0.5895</b>	<b>0.7143</b>		<b>2,324.9459</b>	<b>2,324.9459</b>	<b>0.5884</b>		<b>2,339.6562</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	lb/day										lb/day					
Hauling	6.5100e-003	0.3280	0.1247	1.4600e-003	0.0453	2.0900e-003	0.0474	0.0124	2.0000e-003	0.0144		166.8429	166.8429	0.0171	0.0268	175.2494
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0211	0.3710	1.1900e-003	0.1453	7.1000e-004	0.1460	0.0385	6.5000e-004	0.0392		122.4715	122.4715	2.4700e-003	2.5000e-003	123.2794
<b>Total</b>	<b>0.0410</b>	<b>0.3491</b>	<b>0.4958</b>	<b>2.6500e-003</b>	<b>0.1906</b>	<b>2.8000e-003</b>	<b>0.1934</b>	<b>0.0510</b>	<b>2.6500e-003</b>	<b>0.0536</b>		<b>289.3144</b>	<b>289.3144</b>	<b>0.0196</b>	<b>0.0293</b>	<b>298.5288</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3525	0.0000	0.3525	0.0534	0.0000	0.0534			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895	0.0000	2,324.9459	2,324.9459	0.5884		2,339.6562
<b>Total</b>	<b>1.4397</b>	<b>13.8867</b>	<b>13.4879</b>	<b>0.0241</b>	<b>0.3525</b>	<b>0.6311</b>	<b>0.9836</b>	<b>0.0534</b>	<b>0.5895</b>	<b>0.6428</b>	<b>0.0000</b>	<b>2,324.9459</b>	<b>2,324.9459</b>	<b>0.5884</b>		<b>2,339.6562</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	lb/day										lb/day					
Hauling	6.5100e-003	0.3280	0.1247	1.4600e-003	0.0432	2.0900e-003	0.0453	0.0119	2.0000e-003	0.0139		166.8429	166.8429	0.0171	0.0268	175.2494
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0211	0.3710	1.1900e-003	0.1377	7.1000e-004	0.1384	0.0367	6.5000e-004	0.0373		122.4715	122.4715	2.4700e-003	2.5000e-003	123.2794
<b>Total</b>	<b>0.0410</b>	<b>0.3491</b>	<b>0.4958</b>	<b>2.6500e-003</b>	<b>0.1810</b>	<b>2.8000e-003</b>	<b>0.1838</b>	<b>0.0486</b>	<b>2.6500e-003</b>	<b>0.0512</b>		<b>289.3144</b>	<b>289.3144</b>	<b>0.0196</b>	<b>0.0293</b>	<b>298.5288</b>

**3.3 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2635	0.0000	6.2635	3.0038	0.0000	3.0038			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
<b>Total</b>	<b>1.1067</b>	<b>11.8407</b>	<b>6.6317</b>	<b>0.0172</b>	<b>6.2635</b>	<b>0.4823</b>	<b>6.7458</b>	<b>3.0038</b>	<b>0.4437</b>	<b>3.4475</b>		<b>1,665.8826</b>	<b>1,665.8826</b>	<b>0.5388</b>		<b>1,679.3521</b>



Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0212	0.0130	0.2283	7.3000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.0000e-004	0.0241		75.3671	75.3671	1.5200e-003	1.5400e-003	75.8643
<b>Total</b>	<b>0.0212</b>	<b>0.0130</b>	<b>0.2283</b>	<b>7.3000e-004</b>	<b>0.0894</b>	<b>4.4000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.0000e-004</b>	<b>0.0241</b>		<b>75.3671</b>	<b>75.3671</b>	<b>1.5200e-003</b>	<b>1.5400e-003</b>	<b>75.8643</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	lb/day										lb/day					
Fugitive Dust					2.6777	0.0000	2.6777	1.2841	0.0000	1.2841			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521
<b>Total</b>	<b>1.1067</b>	<b>11.8407</b>	<b>6.6317</b>	<b>0.0172</b>	<b>2.6777</b>	<b>0.4823</b>	<b>3.1599</b>	<b>1.2841</b>	<b>0.4437</b>	<b>1.7278</b>	<b>0.0000</b>	<b>1,665.8826</b>	<b>1,665.8826</b>	<b>0.5388</b>		<b>1,679.3521</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0212	0.0130	0.2283	7.3000e-004	0.0848	4.4000e-004	0.0852	0.0226	4.0000e-004	0.0230		75.3671	75.3671	1.5200e-003	1.5400e-003	75.8643
<b>Total</b>	<b>0.0212</b>	<b>0.0130</b>	<b>0.2283</b>	<b>7.3000e-004</b>	<b>0.0848</b>	<b>4.4000e-004</b>	<b>0.0852</b>	<b>0.0226</b>	<b>4.0000e-004</b>	<b>0.0230</b>		<b>75.3671</b>	<b>75.3671</b>	<b>1.5200e-003</b>	<b>1.5400e-003</b>	<b>75.8643</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0913	0.0000	7.0913	3.4261	0.0000	3.4261			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
<b>Total</b>	<b>1.3015</b>	<b>13.8178</b>	<b>8.6998</b>	<b>0.0206</b>	<b>7.0913</b>	<b>0.5722</b>	<b>7.6636</b>	<b>3.4261</b>	<b>0.5265</b>	<b>3.9525</b>		<b>1,995.5803</b>	<b>1,995.5803</b>	<b>0.6454</b>		<b>2,011.7155</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	lb/day										lb/day					
Hauling	0.0199	1.1437	0.4036	5.3400e-003	0.1686	7.7400e-003	0.1763	0.0462	7.4000e-003	0.0536		609.7600	609.7600	0.0632	0.0979	640.5060
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0162	0.2854	9.1000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		94.2088	94.2088	1.9000e-003	1.9300e-003	94.8303
<b>Total</b>	<b>0.0464</b>	<b>1.1599</b>	<b>0.6890</b>	<b>6.2500e-003</b>	<b>0.2804</b>	<b>8.2800e-003</b>	<b>0.2886</b>	<b>0.0758</b>	<b>7.9000e-003</b>	<b>0.0837</b>		<b>703.9688</b>	<b>703.9688</b>	<b>0.0651</b>	<b>0.0998</b>	<b>735.3363</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	lb/day										lb/day					
Fugitive Dust					3.0315	0.0000	3.0315	1.4646	0.0000	1.4646			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.5803	1,995.5803	0.6454		2,011.7155
<b>Total</b>	<b>1.3015</b>	<b>13.8178</b>	<b>8.6998</b>	<b>0.0206</b>	<b>3.0315</b>	<b>0.5722</b>	<b>3.6038</b>	<b>1.4646</b>	<b>0.5265</b>	<b>1.9911</b>	<b>0.0000</b>	<b>1,995.5803</b>	<b>1,995.5803</b>	<b>0.6454</b>		<b>2,011.7155</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.1437	0.4036	5.3400e-003	0.1609	7.7400e-003	0.1687	0.0443	7.4000e-003	0.0517		609.7600	609.7600	0.0632	0.0979	640.5060
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0265	0.0162	0.2854	9.1000e-004	0.1060	5.4000e-004	0.1065	0.0282	5.0000e-004	0.0287		94.2088	94.2088	1.9000e-003	1.9300e-003	94.8303
<b>Total</b>	<b>0.0464</b>	<b>1.1599</b>	<b>0.6890</b>	<b>6.2500e-003</b>	<b>0.2669</b>	<b>8.2800e-003</b>	<b>0.2751</b>	<b>0.0725</b>	<b>7.9000e-003</b>	<b>0.0804</b>		<b>703.9688</b>	<b>703.9688</b>	<b>0.0651</b>	<b>0.0998</b>	<b>735.3363</b>

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
<b>Total</b>	<b>1.4200</b>	<b>11.0639</b>	<b>12.5172</b>	<b>0.0221</b>		<b>0.4506</b>	<b>0.4506</b>		<b>0.4348</b>	<b>0.4348</b>		<b>2,001.9214</b>	<b>2,001.9214</b>	<b>0.3334</b>		<b>2,010.2563</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9700e-003	0.1747	0.0721	8.8000e-004	0.0320	9.4000e-004	0.0329	9.2000e-003	9.0000e-004	0.0101		97.1932	97.1932	5.9300e-003	0.0140	101.5150
Worker	0.0609	0.0373	0.6564	2.1000e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		216.6803	216.6803	4.3700e-003	4.4300e-003	218.1097
<b>Total</b>	<b>0.0659</b>	<b>0.2120</b>	<b>0.7286</b>	<b>2.9800e-003</b>	<b>0.2891</b>	<b>2.1900e-003</b>	<b>0.2913</b>	<b>0.0774</b>	<b>2.0500e-003</b>	<b>0.0794</b>		<b>313.8734</b>	<b>313.8734</b>	<b>0.0103</b>	<b>0.0184</b>	<b>319.6247</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
<b>Total</b>	<b>1.4200</b>	<b>11.0639</b>	<b>12.5172</b>	<b>0.0221</b>		<b>0.4506</b>	<b>0.4506</b>		<b>0.4348</b>	<b>0.4348</b>	<b>0.0000</b>	<b>2,001.9214</b>	<b>2,001.9214</b>	<b>0.3334</b>		<b>2,010.2563</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9700e-003	0.1747	0.0721	8.8000e-004	0.0306	9.4000e-004	0.0315	8.8700e-003	9.0000e-004	9.7700e-003		97.1932	97.1932	5.9300e-003	0.0140	101.5150
Worker	0.0609	0.0373	0.6564	2.1000e-003	0.2437	1.2500e-003	0.2449	0.0649	1.1500e-003	0.0660		216.6803	216.6803	4.3700e-003	4.4300e-003	218.1097
<b>Total</b>	<b>0.0659</b>	<b>0.2120</b>	<b>0.7286</b>	<b>2.9800e-003</b>	<b>0.2743</b>	<b>2.1900e-003</b>	<b>0.2765</b>	<b>0.0738</b>	<b>2.0500e-003</b>	<b>0.0758</b>		<b>313.8734</b>	<b>313.8734</b>	<b>0.0103</b>	<b>0.0184</b>	<b>319.6247</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6316</b>	<b>5.8607</b>	<b>8.8253</b>	<b>0.0136</b>		<b>0.2810</b>	<b>0.2810</b>		<b>0.2594</b>	<b>0.2594</b>		<b>1,297.8688</b>	<b>1,297.8688</b>	<b>0.4114</b>		<b>1,308.1547</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0211	0.3710	1.1900e-003	0.1453	7.1000e-004	0.1460	0.0385	6.5000e-004	0.0392		122.4715	122.4715	2.4700e-003	2.5000e-003	123.2794
<b>Total</b>	<b>0.0344</b>	<b>0.0211</b>	<b>0.3710</b>	<b>1.1900e-003</b>	<b>0.1453</b>	<b>7.1000e-004</b>	<b>0.1460</b>	<b>0.0385</b>	<b>6.5000e-004</b>	<b>0.0392</b>		<b>122.4715</b>	<b>122.4715</b>	<b>2.4700e-003</b>	<b>2.5000e-003</b>	<b>123.2794</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	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6316</b>	<b>5.8607</b>	<b>8.8253</b>	<b>0.0136</b>		<b>0.2810</b>	<b>0.2810</b>		<b>0.2594</b>	<b>0.2594</b>	<b>0.0000</b>	<b>1,297.8688</b>	<b>1,297.8688</b>	<b>0.4114</b>		<b>1,308.1547</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0211	0.3710	1.1900e-003	0.1377	7.1000e-004	0.1384	0.0367	6.5000e-004	0.0373		122.4715	122.4715	2.4700e-003	2.5000e-003	123.2794
<b>Total</b>	<b>0.0344</b>	<b>0.0211</b>	<b>0.3710</b>	<b>1.1900e-003</b>	<b>0.1377</b>	<b>7.1000e-004</b>	<b>0.1384</b>	<b>0.0367</b>	<b>6.5000e-004</b>	<b>0.0373</b>		<b>122.4715</b>	<b>122.4715</b>	<b>2.4700e-003</b>	<b>2.5000e-003</b>	<b>123.2794</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>6.4274</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152
<b>Total</b>	<b>0.0132</b>	<b>8.1000e-003</b>	<b>0.1427</b>	<b>4.6000e-004</b>	<b>0.0559</b>	<b>2.7000e-004</b>	<b>0.0562</b>	<b>0.0148</b>	<b>2.5000e-004</b>	<b>0.0151</b>		<b>47.1044</b>	<b>47.1044</b>	<b>9.5000e-004</b>	<b>9.6000e-004</b>	<b>47.4152</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	lb/day										lb/day					
Archit. Coating	6.2466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>6.4274</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152
<b>Total</b>	<b>0.0132</b>	<b>8.1000e-003</b>	<b>0.1427</b>	<b>4.6000e-004</b>	<b>0.0530</b>	<b>2.7000e-004</b>	<b>0.0532</b>	<b>0.0141</b>	<b>2.5000e-004</b>	<b>0.0144</b>		<b>47.1044</b>	<b>47.1044</b>	<b>9.5000e-004</b>	<b>9.6000e-004</b>	<b>47.4152</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	lb/day										lb/day					
Mitigated	0.4386	0.4456	4.4532	0.0107	1.1647	7.1100e-004	1.1718	0.3105	6.6100e-004	0.3171		1,102.9136	1,102.9136	0.0624	0.0422	1,117.0377
Unmitigated	0.4386	0.4456	4.4532	0.0107	1.1647	7.1100e-004	1.1718	0.3105	6.6100e-004	0.3171		1,102.9136	1,102.9136	0.0624	0.0422	1,117.0377

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Condo/Townhouse	161.76	161.76	161.76	552,758	552,758
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>161.76</b>	<b>161.76</b>	<b>161.76</b>	<b>552,758</b>	<b>552,758</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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Condo/Townhouse	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Townes at Orange - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0117	0.1000	0.0426	6.4000e-004	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	127.6811	127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
NaturalGas Unmitigated	0.0117	0.1000	0.0426	6.4000e-004	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	8.0900e-003	127.6811	127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398



Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Condo/Townhouse	1085.29	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Parking Lot	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
<b>Total</b>		<b>0.0117</b>	<b>0.1000</b>	<b>0.0426</b>	<b>6.4000e-004</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>127.6811</b>	<b>127.6811</b>	<b>2.4500e-003</b>	<b>2.3400e-003</b>	<b>128.4398</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	lb/day										lb/day					
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
Condo/Townhouse	1085.29	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Parking Lot	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
<b>Total</b>		<b>0.0117</b>	<b>0.1000</b>	<b>0.0426</b>	<b>6.4000e-004</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>127.6811</b>	<b>127.6811</b>	<b>2.4500e-003</b>	<b>2.3400e-003</b>	<b>128.4398</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0228	0.3811	2.1330	2.3900e-003		0.0399	0.0399		0.0399	0.0399	0.0000	460.9799	460.9799	0.0122	8.3900e-003	463.7838
Unmitigated	7.2698	0.5208	14.1858	0.0312		1.8443	1.8443		1.8443	1.8443	224.8060	435.5681	660.3742	0.6738	0.0153	681.7672

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.2889	0.4980	12.2052	0.0311		1.8333	1.8333		1.8333	1.8333	224.8060	432.0000	656.8060	0.6704	0.0153	678.1134
Landscaping	0.0596	0.0228	1.9805	1.0000e-004		0.0110	0.0110		0.0110	0.0110		3.5681	3.5681	3.4300e-003		3.6539
<b>Total</b>	<b>7.2698</b>	<b>0.5208</b>	<b>14.1858</b>	<b>0.0312</b>		<b>1.8443</b>	<b>1.8443</b>		<b>1.8443</b>	<b>1.8443</b>	<b>224.8060</b>	<b>435.5681</b>	<b>660.3742</b>	<b>0.6739</b>	<b>0.0153</b>	<b>681.7672</b>

Townes at Orange - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0419	0.3583	0.1525	2.2900e-003		0.0290	0.0290		0.0290	0.0290	0.0000	457.4118	457.4118	8.7700e-003	8.3900e-003	460.1299
Landscaping	0.0596	0.0228	1.9805	1.0000e-004		0.0110	0.0110		0.0110	0.0110		3.5681	3.5681	3.4300e-003		3.6539
<b>Total</b>	<b>1.0228</b>	<b>0.3811</b>	<b>2.1330</b>	<b>2.3900e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0399</b>	<b>0.0399</b>	<b>0.0000</b>	<b>460.9799</b>	<b>460.9799</b>	<b>0.0122</b>	<b>8.3900e-003</b>	<b>463.7838</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
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

- Institute Recycling and Composting Services

**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**

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Townes at Orange  
Orange County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	13.00	Space	0.12	5,200.00	0
City Park	0.20	Acre	0.20	8,617.00	0
Condo/Townhouse	24.00	Dwelling Unit	0.98	42,696.00	69

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2024
<b>Utility Company</b>	Anaheim Public Utilities				
<b>CO2 Intensity (lb/MW hr)</b>	1543.28	<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 - Based on site plans
- Construction Phase - Based on Construction Questionnaire
- Trips and VMT - Based on construction questionnaire
- Demolition -
- Grading -
- Vehicle Trips - Based on Trip Generation Table
- Woodstoves - No wood burning fireplaces per SCAQMD rules.
- Construction Off-road Equipment Mitigation - SCAQMD rule compliance
- Water Mitigation -
- Waste Mitigation - per AB 939
- Area Mitigation -



Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.2698	0.5208	14.1858	0.0312		1.8443	1.8443		1.8443	1.8443	224.8060	435.5681	660.3742	0.6738	0.0153	681.7672
Energy	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Mobile	0.4358	0.4786	4.3990	0.0102	1.1647	7.1200e-003	1.1718	0.3105	6.6200e-003	0.3171		1,060.7732	1,060.7732	0.0644	0.0439	1,075.4671
<b>Total</b>	<b>7.7173</b>	<b>1.0994</b>	<b>18.6273</b>	<b>0.0421</b>	<b>1.1647</b>	<b>1.8595</b>	<b>3.0242</b>	<b>0.3105</b>	<b>1.8590</b>	<b>2.1694</b>	<b>224.8060</b>	<b>1,624.0224</b>	<b>1,848.8284</b>	<b>0.7406</b>	<b>0.0615</b>	<b>1,885.6742</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	lb/day										lb/day					
Area	1.0228	0.3811	2.1330	2.3900e-003		0.0399	0.0399		0.0399	0.0399	0.0000	460.9799	460.9799	0.0122	8.3900e-003	463.7838
Energy	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Mobile	0.4358	0.4786	4.3990	0.0102	1.1647	7.1200e-003	1.1718	0.3105	6.6200e-003	0.3171		1,060.7732	1,060.7732	0.0644	0.0439	1,075.4671
<b>Total</b>	<b>1.4704</b>	<b>0.9597</b>	<b>6.5745</b>	<b>0.0133</b>	<b>1.1647</b>	<b>0.0552</b>	<b>1.2199</b>	<b>0.3105</b>	<b>0.0547</b>	<b>0.3651</b>	<b>0.0000</b>	<b>1,649.4342</b>	<b>1,649.4342</b>	<b>0.0790</b>	<b>0.0546</b>	<b>1,667.6907</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	80.95	12.70	64.70	68.49	0.00	97.03	59.66	0.00	97.06	83.17	100.00	-1.56	10.78	89.33	11.17	11.56

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	2/29/2024	5	44	
2	Site Preparation	Site Preparation	1/1/2024	2/29/2024	5	44	
3	Grading	Grading	2/1/2024	3/29/2024	5	42	
4	Building Construction	Building Construction	4/1/2024	11/29/2024	5	175	
5	Paving	Paving	5/1/2024	5/31/2024	5	23	
6	Architectural Coating	Architectural Coating	8/1/2024	9/30/2024	5	43	

Acres of Grading (Site Preparation Phase): 41.25

Acres of Grading (Grading Phase): 42

Acres of Paving: 0.12

Residential Indoor: 86,459; Residential Outdoor: 28,820; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 312 (Architectural

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	168.00	14.70	6.90	13.60	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	406.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

**3.2 Demolition - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8245	0.0000	0.8245	0.1248	0.0000	0.1248			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895		2,324.9459	2,324.9459	0.5884		2,339.6562
<b>Total</b>	<b>1.4397</b>	<b>13.8867</b>	<b>13.4879</b>	<b>0.0241</b>	<b>0.8245</b>	<b>0.6311</b>	<b>1.4556</b>	<b>0.1248</b>	<b>0.5895</b>	<b>0.7143</b>		<b>2,324.9459</b>	<b>2,324.9459</b>	<b>0.5884</b>		<b>2,339.6562</b>

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.0400e-003	0.3426	0.1264	1.4600e-003	0.0453	2.1000e-003	0.0474	0.0124	2.0100e-003	0.0144		167.0647	167.0647	0.0171	0.0268	175.4811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0231	0.3460	1.1300e-003	0.1453	7.1000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.6250	116.6250	2.5300e-003	2.6600e-003	117.4820
<b>Total</b>	<b>0.0438</b>	<b>0.3657</b>	<b>0.4725</b>	<b>2.5900e-003</b>	<b>0.1906</b>	<b>2.8100e-003</b>	<b>0.1934</b>	<b>0.0510</b>	<b>2.6600e-003</b>	<b>0.0536</b>		<b>283.6897</b>	<b>283.6897</b>	<b>0.0196</b>	<b>0.0295</b>	<b>292.9631</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	lb/day										lb/day					
Fugitive Dust					0.3525	0.0000	0.3525	0.0534	0.0000	0.0534			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895	0.0000	2,324.9459	2,324.9459	0.5884		2,339.6562
<b>Total</b>	<b>1.4397</b>	<b>13.8867</b>	<b>13.4879</b>	<b>0.0241</b>	<b>0.3525</b>	<b>0.6311</b>	<b>0.9836</b>	<b>0.0534</b>	<b>0.5895</b>	<b>0.6428</b>	<b>0.0000</b>	<b>2,324.9459</b>	<b>2,324.9459</b>	<b>0.5884</b>		<b>2,339.6562</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	lb/day										lb/day					
Hauling	6.0400e-003	0.3426	0.1264	1.4600e-003	0.0432	2.1000e-003	0.0453	0.0119	2.0100e-003	0.0139		167.0647	167.0647	0.0171	0.0268	175.4811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0231	0.3460	1.1300e-003	0.1377	7.1000e-004	0.1384	0.0367	6.5000e-004	0.0373		116.6250	116.6250	2.5300e-003	2.6600e-003	117.4820
<b>Total</b>	<b>0.0438</b>	<b>0.3657</b>	<b>0.4725</b>	<b>2.5900e-003</b>	<b>0.1810</b>	<b>2.8100e-003</b>	<b>0.1838</b>	<b>0.0486</b>	<b>2.6600e-003</b>	<b>0.0512</b>		<b>283.6897</b>	<b>283.6897</b>	<b>0.0196</b>	<b>0.0295</b>	<b>292.9631</b>

**3.3 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2635	0.0000	6.2635	3.0038	0.0000	3.0038			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
<b>Total</b>	<b>1.1067</b>	<b>11.8407</b>	<b>6.6317</b>	<b>0.0172</b>	<b>6.2635</b>	<b>0.4823</b>	<b>6.7458</b>	<b>3.0038</b>	<b>0.4437</b>	<b>3.4475</b>		<b>1,665.8826</b>	<b>1,665.8826</b>	<b>0.5388</b>		<b>1,679.3521</b>



Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0232	0.0142	0.2129	7.0000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.0000e-004	0.0241		71.7692	71.7692	1.5600e-003	1.6400e-003	72.2966
<b>Total</b>	<b>0.0232</b>	<b>0.0142</b>	<b>0.2129</b>	<b>7.0000e-004</b>	<b>0.0894</b>	<b>4.4000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.0000e-004</b>	<b>0.0241</b>		<b>71.7692</b>	<b>71.7692</b>	<b>1.5600e-003</b>	<b>1.6400e-003</b>	<b>72.2966</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	lb/day										lb/day					
Fugitive Dust					2.6777	0.0000	2.6777	1.2841	0.0000	1.2841			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521
<b>Total</b>	<b>1.1067</b>	<b>11.8407</b>	<b>6.6317</b>	<b>0.0172</b>	<b>2.6777</b>	<b>0.4823</b>	<b>3.1599</b>	<b>1.2841</b>	<b>0.4437</b>	<b>1.7278</b>	<b>0.0000</b>	<b>1,665.8826</b>	<b>1,665.8826</b>	<b>0.5388</b>		<b>1,679.3521</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0232	0.0142	0.2129	7.0000e-004	0.0848	4.4000e-004	0.0852	0.0226	4.0000e-004	0.0230		71.7692	71.7692	1.5600e-003	1.6400e-003	72.2966
<b>Total</b>	<b>0.0232</b>	<b>0.0142</b>	<b>0.2129</b>	<b>7.0000e-004</b>	<b>0.0848</b>	<b>4.4000e-004</b>	<b>0.0852</b>	<b>0.0226</b>	<b>4.0000e-004</b>	<b>0.0230</b>		<b>71.7692</b>	<b>71.7692</b>	<b>1.5600e-003</b>	<b>1.6400e-003</b>	<b>72.2966</b>

**3.4 Grading - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0913	0.0000	7.0913	3.4261	0.0000	3.4261			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
<b>Total</b>	<b>1.3015</b>	<b>13.8178</b>	<b>8.6998</b>	<b>0.0206</b>	<b>7.0913</b>	<b>0.5722</b>	<b>7.6636</b>	<b>3.4261</b>	<b>0.5265</b>	<b>3.9525</b>		<b>1,995.5803</b>	<b>1,995.5803</b>	<b>0.6454</b>		<b>2,011.7155</b>

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0187	1.1925	0.4079	5.3400e-003	0.1686	7.7600e-003	0.1763	0.0462	7.4200e-003	0.0536		610.3213	610.3213	0.0631	0.0980	641.0929
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0291	0.0178	0.2662	8.7000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.7115	89.7115	1.9500e-003	2.0500e-003	90.3708
<b>Total</b>	<b>0.0478</b>	<b>1.2102</b>	<b>0.6740</b>	<b>6.2100e-003</b>	<b>0.2804</b>	<b>8.3000e-003</b>	<b>0.2887</b>	<b>0.0758</b>	<b>7.9200e-003</b>	<b>0.0837</b>		<b>700.0328</b>	<b>700.0328</b>	<b>0.0651</b>	<b>0.1000</b>	<b>731.4636</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	lb/day										lb/day					
Fugitive Dust					3.0315	0.0000	3.0315	1.4646	0.0000	1.4646			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.5803	1,995.5803	0.6454		2,011.7155
<b>Total</b>	<b>1.3015</b>	<b>13.8178</b>	<b>8.6998</b>	<b>0.0206</b>	<b>3.0315</b>	<b>0.5722</b>	<b>3.6038</b>	<b>1.4646</b>	<b>0.5265</b>	<b>1.9911</b>	<b>0.0000</b>	<b>1,995.5803</b>	<b>1,995.5803</b>	<b>0.6454</b>		<b>2,011.7155</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	lb/day										lb/day					
Hauling	0.0187	1.1925	0.4079	5.3400e-003	0.1609	7.7600e-003	0.1687	0.0443	7.4200e-003	0.0517		610.3213	610.3213	0.0631	0.0980	641.0929
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0291	0.0178	0.2662	8.7000e-004	0.1060	5.4000e-004	0.1065	0.0262	5.0000e-004	0.0287		89.7115	89.7115	1.9500e-003	2.0500e-003	90.3708
<b>Total</b>	<b>0.0478</b>	<b>1.2102</b>	<b>0.6740</b>	<b>6.2100e-003</b>	<b>0.2669</b>	<b>8.3000e-003</b>	<b>0.2752</b>	<b>0.0725</b>	<b>7.9200e-003</b>	<b>0.0804</b>		<b>700.0328</b>	<b>700.0328</b>	<b>0.0651</b>	<b>0.1000</b>	<b>731.4636</b>

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
<b>Total</b>	<b>1.4200</b>	<b>11.0639</b>	<b>12.5172</b>	<b>0.0221</b>		<b>0.4506</b>	<b>0.4506</b>		<b>0.4348</b>	<b>0.4348</b>		<b>2,001.9214</b>	<b>2,001.9214</b>	<b>0.3334</b>		<b>2,010.2563</b>

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-003	0.1825	0.0744	8.8000e-004	0.0320	9.5000e-004	0.0329	9.2000e-003	9.0000e-004	0.0101		97.3397	97.3397	5.9200e-003	0.0140	101.6705
Worker	0.0668	0.0409	0.6122	2.0000e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		206.3366	206.3366	4.4800e-003	4.7100e-003	207.8528
<b>Total</b>	<b>0.0716</b>	<b>0.2234</b>	<b>0.6866</b>	<b>2.8800e-003</b>	<b>0.2891</b>	<b>2.2000e-003</b>	<b>0.2913</b>	<b>0.0774</b>	<b>2.0500e-003</b>	<b>0.0794</b>		<b>303.6762</b>	<b>303.6762</b>	<b>0.0104</b>	<b>0.0188</b>	<b>309.5233</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	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
<b>Total</b>	<b>1.4200</b>	<b>11.0639</b>	<b>12.5172</b>	<b>0.0221</b>		<b>0.4506</b>	<b>0.4506</b>		<b>0.4348</b>	<b>0.4348</b>	<b>0.0000</b>	<b>2,001.9214</b>	<b>2,001.9214</b>	<b>0.3334</b>		<b>2,010.2563</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-003	0.1825	0.0744	8.8000e-004	0.0306	9.5000e-004	0.0316	8.8700e-003	9.0000e-004	9.7700e-003		97.3397	97.3397	5.9200e-003	0.0140	101.6705
Worker	0.0668	0.0409	0.6122	2.0000e-003	0.2437	1.2500e-003	0.2449	0.0649	1.1500e-003	0.0660		206.3366	206.3366	4.4800e-003	4.7100e-003	207.8528
<b>Total</b>	<b>0.0716</b>	<b>0.2234</b>	<b>0.6866</b>	<b>2.8800e-003</b>	<b>0.2743</b>	<b>2.2000e-003</b>	<b>0.2765</b>	<b>0.0738</b>	<b>2.0500e-003</b>	<b>0.0758</b>		<b>303.6762</b>	<b>303.6762</b>	<b>0.0104</b>	<b>0.0188</b>	<b>309.5233</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6316</b>	<b>5.8607</b>	<b>8.8253</b>	<b>0.0136</b>		<b>0.2810</b>	<b>0.2810</b>		<b>0.2594</b>	<b>0.2594</b>		<b>1,297.8688</b>	<b>1,297.8688</b>	<b>0.4114</b>		<b>1,308.1547</b>

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0231	0.3460	1.1300e-003	0.1453	7.1000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.6250	116.6250	2.5300e-003	2.6600e-003	117.4820
<b>Total</b>	<b>0.0378</b>	<b>0.0231</b>	<b>0.3460</b>	<b>1.1300e-003</b>	<b>0.1453</b>	<b>7.1000e-004</b>	<b>0.1460</b>	<b>0.0385</b>	<b>6.5000e-004</b>	<b>0.0392</b>		<b>116.6250</b>	<b>116.6250</b>	<b>2.5300e-003</b>	<b>2.6600e-003</b>	<b>117.4820</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	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0137					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6316</b>	<b>5.8607</b>	<b>8.8253</b>	<b>0.0136</b>		<b>0.2810</b>	<b>0.2810</b>		<b>0.2594</b>	<b>0.2594</b>	<b>0.0000</b>	<b>1,297.8688</b>	<b>1,297.8688</b>	<b>0.4114</b>		<b>1,308.1547</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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0231	0.3460	1.1300e-003	0.1377	7.1000e-004	0.1384	0.0367	6.5000e-004	0.0373		116.6250	116.6250	2.5300e-003	2.6600e-003	117.4820
<b>Total</b>	<b>0.0378</b>	<b>0.0231</b>	<b>0.3460</b>	<b>1.1300e-003</b>	<b>0.1377</b>	<b>7.1000e-004</b>	<b>0.1384</b>	<b>0.0367</b>	<b>6.5000e-004</b>	<b>0.0373</b>		<b>116.6250</b>	<b>116.6250</b>	<b>2.5300e-003</b>	<b>2.6600e-003</b>	<b>117.4820</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2466					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>6.4274</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Townes at Orange - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854
<b>Total</b>	<b>0.0145</b>	<b>8.8900e-003</b>	<b>0.1331</b>	<b>4.3000e-004</b>	<b>0.0559</b>	<b>2.7000e-004</b>	<b>0.0562</b>	<b>0.0148</b>	<b>2.5000e-004</b>	<b>0.0151</b>		<b>44.8558</b>	<b>44.8558</b>	<b>9.7000e-004</b>	<b>1.0200e-003</b>	<b>45.1854</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	lb/day										lb/day					
Archit. Coating	6.2466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>6.4274</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854
<b>Total</b>	<b>0.0145</b>	<b>8.8900e-003</b>	<b>0.1331</b>	<b>4.3000e-004</b>	<b>0.0530</b>	<b>2.7000e-004</b>	<b>0.0532</b>	<b>0.0141</b>	<b>2.5000e-004</b>	<b>0.0144</b>		<b>44.8558</b>	<b>44.8558</b>	<b>9.7000e-004</b>	<b>1.0200e-003</b>	<b>45.1854</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	lb/day										lb/day					
Mitigated	0.4358	0.4786	4.3990	0.0102	1.1647	7.1200e-003	1.1718	0.3105	6.6200e-003	0.3171		1,060.7732	1,060.7732	0.0644	0.0439	1,075.4671
Unmitigated	0.4358	0.4786	4.3990	0.0102	1.1647	7.1200e-003	1.1718	0.3105	6.6200e-003	0.3171		1,060.7732	1,060.7732	0.0644	0.0439	1,075.4671

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Condo/Townhouse	161.76	161.76	161.76	552,758	552,758
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>161.76</b>	<b>161.76</b>	<b>161.76</b>	<b>552,758</b>	<b>552,758</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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Condo/Townhouse	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

Townes at Orange - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
NaturalGas Unmitigated	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Condo/Townhouse	1085.29	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Parking Lot	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
<b>Total</b>		<b>0.0117</b>	<b>0.1000</b>	<b>0.0426</b>	<b>6.4000e-004</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>127.6811</b>	<b>127.6811</b>	<b>2.4500e-003</b>	<b>2.3400e-003</b>	<b>128.4398</b>



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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**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	lb/day										lb/day					
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
Condo/Townhouse	1.08529	0.0117	0.1000	0.0426	6.4000e-004		8.0900e-003	8.0900e-003		8.0900e-003	8.0900e-003		127.6811	127.6811	2.4500e-003	2.3400e-003	128.4398
Parking Lot	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
<b>Total</b>		<b>0.0117</b>	<b>0.1000</b>	<b>0.0426</b>	<b>6.4000e-004</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>		<b>127.6811</b>	<b>127.6811</b>	<b>2.4500e-003</b>	<b>2.3400e-003</b>	<b>128.4398</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0228	0.3811	2.1330	2.3900e-003		0.0399	0.0399		0.0399	0.0399	0.0000	460.9799	460.9799	0.0122	8.3900e-003	463.7838
Unmitigated	7.2698	0.5208	14.1858	0.0312		1.8443	1.8443		1.8443	1.8443	224.8060	435.5681	660.3742	0.6738	0.0153	681.7672

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.2889	0.4980	12.2052	0.0311		1.8333	1.8333		1.8333	1.8333	224.8060	432.0000	656.8060	0.6704	0.0153	678.1134
Landscaping	0.0596	0.0228	1.9805	1.0000e-004		0.0110	0.0110		0.0110	0.0110		3.5681	3.5681	3.4300e-003		3.6539
<b>Total</b>	<b>7.2698</b>	<b>0.5208</b>	<b>14.1858</b>	<b>0.0312</b>		<b>1.8443</b>	<b>1.8443</b>		<b>1.8443</b>	<b>1.8443</b>	<b>224.8060</b>	<b>435.5681</b>	<b>660.3742</b>	<b>0.6739</b>	<b>0.0153</b>	<b>681.7672</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0419	0.3583	0.1525	2.2900e-003		0.0290	0.0290		0.0290	0.0290	0.0000	457.4118	457.4118	8.7700e-003	8.3900e-003	460.1299
Landscaping	0.0596	0.0228	1.9805	1.0000e-004		0.0110	0.0110		0.0110	0.0110		3.5681	3.5681	3.4300e-003		3.6539
<b>Total</b>	<b>1.0228</b>	<b>0.3811</b>	<b>2.1330</b>	<b>2.3900e-003</b>		<b>0.0399</b>	<b>0.0399</b>		<b>0.0399</b>	<b>0.0399</b>	<b>0.0000</b>	<b>460.9799</b>	<b>460.9799</b>	<b>0.0122</b>	<b>8.3900e-003</b>	<b>463.7838</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
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

- Institute Recycling and Composting Services

**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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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	13.00	Space	0.12	5,200.00	0
City Park	0.20	Acre	0.20	8,617.00	0
Condo/Townhouse	24.00	Dwelling Unit	0.98	42,696.00	69

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2024
<b>Utility Company</b>	Anaheim Public Utilities				
<b>CO2 Intensity (lb/MW hr)</b>	1543.28	<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 - Based on site plans
- Construction Phase - Based on Construction Questionnaire
- Trips and VMT - Based on construction questionnaire
- Demolition -
- Grading -
- Vehicle Trips - Based on Trip Generation Table
- Woodstoves - No wood burning fireplaces per SCAQMD rules.
- Construction Off-road Equipment Mitigation - SCAQMD rule compliance
- Water Mitigation -
- Waste Mitigation - per AB 939
- Area Mitigation -

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	4.00	42.00
tblConstructionPhase	NumDays	200.00	175.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	10.00	43.00
tblGrading	MaterialExported	0.00	1,624.00
tblGrading	MaterialImported	0.00	1,624.00
tblLandUse	LandUseSquareFeet	8,712.00	8,617.00
tblLandUse	LandUseSquareFeet	24,000.00	42,696.00
tblLandUse	LotAcreage	1.50	0.98
tblTripsAndVMT	HaulingTripLength	20.00	13.60
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	6.74

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					
2024	0.3619	1.9721	1.9587	3.9700e-003	0.3444	0.0809	0.4253	0.1514	0.0766	0.2279	0.0000	342.5421	342.5421	0.0684	4.0700e-003	345.4641
Maximum	0.3619	1.9721	1.9587	3.9700e-003	0.3444	0.0809	0.4253	0.1514	0.0766	0.2279	0.0000	342.5421	342.5421	0.0684	4.0700e-003	345.4641

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**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3619	1.9721	1.9587	3.9700e-003	0.1678	0.0809	0.2488	0.0703	0.0766	0.1468	0.0000	342.5418	342.5418	0.0684	4.0700e-003	345.4637
Maximum	0.3619	1.9721	1.9587	3.9700e-003	0.1678	0.0809	0.2488	0.0703	0.0766	0.1468	0.0000	342.5418	342.5418	0.0684	4.0700e-003	345.4637

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.26	0.00	41.51	53.56	0.00	35.58	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	0.9547	0.9547
2	4-1-2024	6-30-2024	0.4872	0.4872
3	7-1-2024	9-30-2024	0.5864	0.5864
		Highest	0.9547	0.9547

**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	0.2542	9.0800e-003	0.4001	4.0000e-004		0.0243	0.0243		0.0243	0.0243	2.5493	5.3034	7.8527	7.9900e-003	1.7000e-004	8.1040
Energy	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	103.5984	103.5984	1.9500e-003	7.1000e-004	103.8583
Mobile	0.0776	0.0884	0.8061	1.8800e-003	0.2082	1.2900e-003	0.2095	0.0556	1.2000e-003	0.0568	0.0000	176.8105	176.8105	0.0106	7.2900e-003	179.2474
Waste						0.0000	0.0000		0.0000	0.0000	2.2451	0.0000	2.2451	0.1327	0.0000	5.5621
Water						0.0000	0.0000		0.0000	0.0000	0.4961	23.7732	24.2693	0.0514	1.3000e-003	25.9403
<b>Total</b>	<b>0.3340</b>	<b>0.1157</b>	<b>1.2140</b>	<b>2.4000e-003</b>	<b>0.2082</b>	<b>0.0271</b>	<b>0.2353</b>	<b>0.0556</b>	<b>0.0270</b>	<b>0.0826</b>	<b>5.2904</b>	<b>309.4855</b>	<b>314.7759</b>	<b>0.2046</b>	<b>9.4700e-003</b>	<b>322.7121</b>

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**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	0.1761	7.3300e-003	0.2495	4.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	5.5916	5.5916	4.9000e-004	1.0000e-004	5.6321
Energy	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	103.5984	103.5984	1.9500e-003	7.1000e-004	103.8583
Mobile	0.0776	0.0884	0.8061	1.8800e-003	0.2082	1.2900e-003	0.2095	0.0556	1.2000e-003	0.0568	0.0000	176.8105	176.8105	0.0106	7.2900e-003	179.2474
Waste						0.0000	0.0000		0.0000	0.0000	1.1225	0.0000	1.1225	0.0663	0.0000	2.7811
Water						0.0000	0.0000		0.0000	0.0000	0.3969	20.3418	20.7387	0.0411	9.1400e-003	22.0777
<b>Total</b>	<b>0.2559</b>	<b>0.1139</b>	<b>1.0633</b>	<b>2.0400e-003</b>	<b>0.2082</b>	<b>4.5000e-003</b>	<b>0.2127</b>	<b>0.0556</b>	<b>4.4100e-003</b>	<b>0.0600</b>	<b>1.5194</b>	<b>306.3423</b>	<b>307.8617</b>	<b>0.1205</b>	<b>9.1400e-003</b>	<b>313.5966</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	23.38	1.51	12.41	15.00	0.00	83.37	9.59	0.00	83.65	27.33	71.28	1.02	2.20	41.11	3.48	2.82

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	2/29/2024	5	44	
2	Site Preparation	Site Preparation	1/1/2024	2/29/2024	5	44	
3	Grading	Grading	2/1/2024	3/29/2024	5	42	
4	Building Construction	Building Construction	4/1/2024	11/29/2024	5	175	
5	Paving	Paving	5/1/2024	5/31/2024	5	23	
6	Architectural Coating	Architectural Coating	8/1/2024	9/30/2024	5	43	

Acres of Grading (Site Preparation Phase): 41.25

Acres of Grading (Grading Phase): 42

Acres of Paving: 0.12

Residential Indoor: 86,459; Residential Outdoor: 28,820; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 312

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**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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	23	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	168.00	14.70	6.90	13.60	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	406.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

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3.2 Demolition - 2024

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					0.0181	0.0000	0.0181	2.7500e-003	0.0000	2.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3055	0.2967	5.3000e-004		0.0139	0.0139		0.0130	0.0130	0.0000	46.4014	46.4014	0.0117	0.0000	46.6950
<b>Total</b>	<b>0.0317</b>	<b>0.3055</b>	<b>0.2967</b>	<b>5.3000e-004</b>	<b>0.0181</b>	<b>0.0139</b>	<b>0.0320</b>	<b>2.7500e-003</b>	<b>0.0130</b>	<b>0.0157</b>	<b>0.0000</b>	<b>46.4014</b>	<b>46.4014</b>	<b>0.0117</b>	<b>0.0000</b>	<b>46.6950</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	1.4000e-004	7.5800e-003	2.7600e-003	3.0000e-005	9.8000e-004	5.0000e-005	1.0300e-003	2.7000e-004	4.0000e-005	3.1000e-004	0.0000	3.3317	3.3317	3.4000e-004	5.3000e-004	3.4996
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	7.6000e-004	5.2000e-004	7.7800e-003	3.0000e-005	3.1400e-003	2.0000e-005	3.1600e-003	8.3000e-004	1.0000e-005	8.5000e-004	0.0000	2.3591	2.3591	5.0000e-005	5.0000e-005	2.3764
<b>Total</b>	<b>9.0000e-004</b>	<b>8.1000e-003</b>	<b>0.0105</b>	<b>6.0000e-005</b>	<b>4.1200e-003</b>	<b>7.0000e-005</b>	<b>4.1900e-003</b>	<b>1.1000e-003</b>	<b>5.0000e-005</b>	<b>1.1600e-003</b>	<b>0.0000</b>	<b>5.6908</b>	<b>5.6908</b>	<b>3.9000e-004</b>	<b>5.8000e-004</b>	<b>5.8760</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					7.7500e-003	0.0000	7.7500e-003	1.1700e-003	0.0000	1.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3055	0.2967	5.3000e-004		0.0139	0.0139		0.0130	0.0130	0.0000	46.4014	46.4014	0.0117	0.0000	46.6950
<b>Total</b>	<b>0.0317</b>	<b>0.3055</b>	<b>0.2967</b>	<b>5.3000e-004</b>	<b>7.7500e-003</b>	<b>0.0139</b>	<b>0.0216</b>	<b>1.1700e-003</b>	<b>0.0130</b>	<b>0.0141</b>	<b>0.0000</b>	<b>46.4014</b>	<b>46.4014</b>	<b>0.0117</b>	<b>0.0000</b>	<b>46.6950</b>



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**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	1.4000e-004	7.5800e-003	2.7600e-003	3.0000e-005	9.4000e-004	5.0000e-005	9.8000e-004	2.6000e-004	4.0000e-005	3.0000e-004	0.0000	3.3317	3.3317	3.4000e-004	5.3000e-004	3.4996
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	7.6000e-004	5.2000e-004	7.7800e-003	3.0000e-005	2.9800e-003	2.0000e-005	2.9900e-003	7.9000e-004	1.0000e-005	8.1000e-004	0.0000	2.3591	2.3591	5.0000e-005	5.0000e-005	2.3764
<b>Total</b>	<b>9.0000e-004</b>	<b>8.1000e-003</b>	<b>0.0105</b>	<b>6.0000e-005</b>	<b>3.9200e-003</b>	<b>7.0000e-005</b>	<b>3.9700e-003</b>	<b>1.0500e-003</b>	<b>5.0000e-005</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>5.6908</b>	<b>5.6908</b>	<b>3.9000e-004</b>	<b>5.8000e-004</b>	<b>5.8760</b>

**3.3 Site Preparation - 2024**

**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					0.1378	0.0000	0.1378	0.0661	0.0000	0.0661	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0244	0.2605	0.1459	3.8000e-004		0.0106	0.0106		9.7600e-003	9.7600e-003	0.0000	33.2478	33.2478	0.0108	0.0000	33.5166
<b>Total</b>	<b>0.0244</b>	<b>0.2605</b>	<b>0.1459</b>	<b>3.8000e-004</b>	<b>0.1378</b>	<b>0.0106</b>	<b>0.1484</b>	<b>0.0661</b>	<b>9.7600e-003</b>	<b>0.0758</b>	<b>0.0000</b>	<b>33.2478</b>	<b>33.2478</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.5166</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	4.7000e-004	3.2000e-004	4.7900e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4518	1.4518	3.0000e-005	3.0000e-005	1.4624
<b>Total</b>	<b>4.7000e-004</b>	<b>3.2000e-004</b>	<b>4.7900e-003</b>	<b>2.0000e-005</b>	<b>1.9300e-003</b>	<b>1.0000e-005</b>	<b>1.9400e-003</b>	<b>5.1000e-004</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.4518</b>	<b>1.4518</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.4624</b>

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**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0589	0.0000	0.0589	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0244	0.2605	0.1459	3.8000e-004		0.0106	0.0106		9.7600e-003	9.7600e-003	0.0000	33.2478	33.2478	0.0108	0.0000	33.5166
<b>Total</b>	<b>0.0244</b>	<b>0.2605</b>	<b>0.1459</b>	<b>3.8000e-004</b>	<b>0.0589</b>	<b>0.0106</b>	<b>0.0695</b>	<b>0.0283</b>	<b>9.7600e-003</b>	<b>0.0380</b>	<b>0.0000</b>	<b>33.2478</b>	<b>33.2478</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.5166</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	4.7000e-004	3.2000e-004	4.7900e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4518	1.4518	3.0000e-005	3.0000e-005	1.4624
<b>Total</b>	<b>4.7000e-004</b>	<b>3.2000e-004</b>	<b>4.7900e-003</b>	<b>2.0000e-005</b>	<b>1.8300e-003</b>	<b>1.0000e-005</b>	<b>1.8400e-003</b>	<b>4.9000e-004</b>	<b>1.0000e-005</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>1.4518</b>	<b>1.4518</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.4624</b>

**3.4 Grading - 2024**

**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					0.1489	0.0000	0.1489	0.0720	0.0000	0.0720	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0273	0.2902	0.1827	4.3000e-004		0.0120	0.0120		0.0111	0.0111	0.0000	38.0176	38.0176	0.0123	0.0000	38.3250
<b>Total</b>	<b>0.0273</b>	<b>0.2902</b>	<b>0.1827</b>	<b>4.3000e-004</b>	<b>0.1489</b>	<b>0.0120</b>	<b>0.1609</b>	<b>0.0720</b>	<b>0.0111</b>	<b>0.0830</b>	<b>0.0000</b>	<b>38.0176</b>	<b>38.0176</b>	<b>0.0123</b>	<b>0.0000</b>	<b>38.3250</b>

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**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-004	0.0253	8.5100e-003	1.1000e-004	3.4800e-003	1.6000e-004	3.6500e-003	9.6000e-004	1.6000e-004	1.1100e-003	0.0000	11.6210	11.6210	1.2000e-003	1.8700e-003	12.2069
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	5.6000e-004	3.8000e-004	5.7100e-003	2.0000e-005	2.3100e-003	1.0000e-005	2.3200e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.7322	1.7322	4.0000e-005	4.0000e-005	1.7449
<b>Total</b>	<b>9.7000e-004</b>	<b>0.0257</b>	<b>0.0142</b>	<b>1.3000e-004</b>	<b>5.7900e-003</b>	<b>1.7000e-004</b>	<b>5.9700e-003</b>	<b>1.5700e-003</b>	<b>1.7000e-004</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>13.3532</b>	<b>13.3532</b>	<b>1.2400e-003</b>	<b>1.9100e-003</b>	<b>13.9518</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					0.0637	0.0000	0.0637	0.0308	0.0000	0.0308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0273	0.2902	0.1827	4.3000e-004		0.0120	0.0120		0.0111	0.0111	0.0000	38.0175	38.0175	0.0123	0.0000	38.3249
<b>Total</b>	<b>0.0273</b>	<b>0.2902</b>	<b>0.1827</b>	<b>4.3000e-004</b>	<b>0.0637</b>	<b>0.0120</b>	<b>0.0757</b>	<b>0.0308</b>	<b>0.0111</b>	<b>0.0418</b>	<b>0.0000</b>	<b>38.0175</b>	<b>38.0175</b>	<b>0.0123</b>	<b>0.0000</b>	<b>38.3249</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	4.1000e-004	0.0253	8.5100e-003	1.1000e-004	3.3300e-003	1.6000e-004	3.4900e-003	9.2000e-004	1.6000e-004	1.0700e-003	0.0000	11.6210	11.6210	1.2000e-003	1.8700e-003	12.2069
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	5.6000e-004	3.8000e-004	5.7100e-003	2.0000e-005	2.1900e-003	1.0000e-005	2.2000e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.7322	1.7322	4.0000e-005	4.0000e-005	1.7449
<b>Total</b>	<b>9.7000e-004</b>	<b>0.0257</b>	<b>0.0142</b>	<b>1.3000e-004</b>	<b>5.5200e-003</b>	<b>1.7000e-004</b>	<b>5.6900e-003</b>	<b>1.5000e-003</b>	<b>1.7000e-004</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>13.3532</b>	<b>13.3532</b>	<b>1.2400e-003</b>	<b>1.9100e-003</b>	<b>13.9518</b>

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3.5 Building Construction - 2024

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	0.1243	0.9681	1.0953	1.9300e-003		0.0394	0.0394		0.0380	0.0380	0.0000	158.9099	158.9099	0.0265	0.0000	159.5715
<b>Total</b>	<b>0.1243</b>	<b>0.9681</b>	<b>1.0953</b>	<b>1.9300e-003</b>		<b>0.0394</b>	<b>0.0394</b>		<b>0.0380</b>	<b>0.0380</b>	<b>0.0000</b>	<b>158.9099</b>	<b>158.9099</b>	<b>0.0265</b>	<b>0.0000</b>	<b>159.5715</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	4.3000e-004	0.0160	6.4000e-003	8.0000e-005	2.7600e-003	8.0000e-005	2.8400e-003	8.0000e-004	8.0000e-005	8.7000e-004	0.0000	7.7200	7.7200	4.7000e-004	1.1100e-003	8.0635
Worker	5.3500e-003	3.6500e-003	0.0548	1.8000e-004	0.0221	1.1000e-004	0.0222	5.8700e-003	1.0000e-004	5.9700e-003	0.0000	16.6003	16.6003	3.5000e-004	3.8000e-004	16.7222
<b>Total</b>	<b>5.7800e-003</b>	<b>0.0197</b>	<b>0.0612</b>	<b>2.6000e-004</b>	<b>0.0249</b>	<b>1.9000e-004</b>	<b>0.0250</b>	<b>6.6700e-003</b>	<b>1.8000e-004</b>	<b>6.8400e-003</b>	<b>0.0000</b>	<b>24.3202</b>	<b>24.3202</b>	<b>8.2000e-004</b>	<b>1.4900e-003</b>	<b>24.7856</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	0.1243	0.9681	1.0953	1.9300e-003		0.0394	0.0394		0.0380	0.0380	0.0000	158.9097	158.9097	0.0265	0.0000	159.5713
<b>Total</b>	<b>0.1243</b>	<b>0.9681</b>	<b>1.0953</b>	<b>1.9300e-003</b>		<b>0.0394</b>	<b>0.0394</b>		<b>0.0380</b>	<b>0.0380</b>	<b>0.0000</b>	<b>158.9097</b>	<b>158.9097</b>	<b>0.0265</b>	<b>0.0000</b>	<b>159.5713</b>

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**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	4.3000e-004	0.0160	6.4000e-003	8.0000e-005	2.6400e-003	8.0000e-005	2.7200e-003	7.7000e-004	8.0000e-005	8.5000e-004	0.0000	7.7200	7.7200	4.7000e-004	1.1100e-003	8.0635
Worker	5.3500e-003	3.6500e-003	0.0548	1.8000e-004	0.0209	1.1000e-004	0.0211	5.5900e-003	1.0000e-004	5.6900e-003	0.0000	16.6003	16.6003	3.5000e-004	3.8000e-004	16.7222
<b>Total</b>	<b>5.7800e-003</b>	<b>0.0197</b>	<b>0.0612</b>	<b>2.6000e-004</b>	<b>0.0236</b>	<b>1.9000e-004</b>	<b>0.0238</b>	<b>6.3600e-003</b>	<b>1.8000e-004</b>	<b>6.5400e-003</b>	<b>0.0000</b>	<b>24.3202</b>	<b>24.3202</b>	<b>8.2000e-004</b>	<b>1.4900e-003</b>	<b>24.7856</b>

**3.6 Paving - 2024**

**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	7.1100e-003	0.0674	0.1015	1.6000e-004		3.2300e-003	3.2300e-003		2.9800e-003	2.9800e-003	0.0000	13.5402	13.5402	4.2900e-003	0.0000	13.6475
Paving	1.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>7.2700e-003</b>	<b>0.0674</b>	<b>0.1015</b>	<b>1.6000e-004</b>		<b>3.2300e-003</b>	<b>3.2300e-003</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>13.5402</b>	<b>13.5402</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>13.6475</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-004	2.7000e-004	4.0700e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2332	1.2332	3.0000e-005	3.0000e-005	1.2422
<b>Total</b>	<b>4.0000e-004</b>	<b>2.7000e-004</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>1.6400e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>1.2332</b>	<b>1.2332</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.2422</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	7.1100e-003	0.0674	0.1015	1.6000e-004		3.2300e-003	3.2300e-003		2.9800e-003	2.9800e-003	0.0000	13.5402	13.5402	4.2900e-003	0.0000	13.6475
Paving	1.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>7.2700e-003</b>	<b>0.0674</b>	<b>0.1015</b>	<b>1.6000e-004</b>		<b>3.2300e-003</b>	<b>3.2300e-003</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>13.5402</b>	<b>13.5402</b>	<b>4.2900e-003</b>	<b>0.0000</b>	<b>13.6475</b>

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**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-004	2.7000e-004	4.0700e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5600e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2332	1.2332	3.0000e-005	3.0000e-005	1.2422
<b>Total</b>	<b>4.0000e-004</b>	<b>2.7000e-004</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>1.5600e-003</b>	<b>1.0000e-005</b>	<b>1.5600e-003</b>	<b>4.1000e-004</b>	<b>1.0000e-005</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>1.2332</b>	<b>1.2332</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.2422</b>

**3.7 Architectural Coating - 2024**

**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	0.1343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0262	0.0389	6.0000e-005		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	5.4895	5.4895	3.1000e-004	0.0000	5.4972
<b>Total</b>	<b>0.1382</b>	<b>0.0262</b>	<b>0.0389</b>	<b>6.0000e-005</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>5.4895</b>	<b>5.4895</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>5.4972</b>

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**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.9000e-004	1.9000e-004	2.9300e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.8867	0.8867	2.0000e-005	2.0000e-005	0.8932
<b>Total</b>	<b>2.9000e-004</b>	<b>1.9000e-004</b>	<b>2.9300e-003</b>	<b>1.0000e-005</b>	<b>1.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1900e-003</b>	<b>3.1000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.8867</b>	<b>0.8867</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8932</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	0.1343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0262	0.0389	6.0000e-005		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	5.4895	5.4895	3.1000e-004	0.0000	5.4972
<b>Total</b>	<b>0.1382</b>	<b>0.0262</b>	<b>0.0389</b>	<b>6.0000e-005</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>5.4895</b>	<b>5.4895</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>5.4972</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	2.9000e-004	1.9000e-004	2.9300e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8867	0.8867	2.0000e-005	2.0000e-005	0.8932
<b>Total</b>	<b>2.9000e-004</b>	<b>1.9000e-004</b>	<b>2.9300e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.8867</b>	<b>0.8867</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8932</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	0.0776	0.0884	0.8061	1.8800e-003	0.2082	1.2900e-003	0.2095	0.0556	1.2000e-003	0.0568	0.0000	176.8105	176.8105	0.0106	7.2900e-003	179.2474

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Unmitigated	0.0776	0.0884	0.8061	1.8800e-003	0.2082	1.2900e-003	0.2095	0.0556	1.2000e-003	0.0568	0.0000	176.8105	176.8105	0.0106	7.2900e-003	179.2474
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Condo/Townhouse	161.76	161.76	161.76	552,758	552,758
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>161.76</b>	<b>161.76</b>	<b>161.76</b>	<b>552,758</b>	<b>552,758</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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Condo/Townhouse	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

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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	82.4593	82.4593	1.5500e-003	3.2000e-004	82.5936
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	82.4593	82.4593	1.5500e-003	3.2000e-004	82.5936
NaturalGas Mitigated	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	21.1390	21.1390	4.1000e-004	3.9000e-004	21.2647
NaturalGas Unmitigated	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	21.1390	21.1390	4.1000e-004	3.9000e-004	21.2647

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	396131	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	21.1390	21.1390	4.1000e-004	3.9000e-004	21.2647
Parking Lot	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>2.1400e-003</b>	<b>0.0183</b>	<b>7.7700e-003</b>	<b>1.2000e-004</b>		<b>1.4800e-003</b>	<b>1.4800e-003</b>		<b>1.4800e-003</b>	<b>1.4800e-003</b>	<b>0.0000</b>	<b>21.1390</b>	<b>21.1390</b>	<b>4.1000e-004</b>	<b>3.9000e-004</b>	<b>21.2647</b>

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**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					
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
Condo/Townhouse	396131	2.1400e-003	0.0183	7.7700e-003	1.2000e-004		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	21.1390	21.1390	4.1000e-004	3.9000e-004	21.2647
Parking Lot	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>2.1400e-003</b>	<b>0.0183</b>	<b>7.7700e-003</b>	<b>1.2000e-004</b>		<b>1.4800e-003</b>	<b>1.4800e-003</b>		<b>1.4800e-003</b>	<b>1.4800e-003</b>	<b>0.0000</b>	<b>21.1390</b>	<b>21.1390</b>	<b>4.1000e-004</b>	<b>3.9000e-004</b>	<b>21.2647</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	115976	81.1853	1.5300e-003	3.2000e-004	81.3175
Parking Lot	1820	1.2740	2.0000e-005	0.0000	1.2761
<b>Total</b>		<b>82.4593</b>	<b>1.5500e-003</b>	<b>3.2000e-004</b>	<b>82.5936</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	115976	81.1853	1.5300e-003	3.2000e-004	81.3175
Parking Lot	1820	1.2740	2.0000e-005	0.0000	1.2761
<b>Total</b>		<b>82.4593</b>	<b>1.5500e-003</b>	<b>3.2000e-004</b>	<b>82.5936</b>

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6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1761	7.3300e-003	0.2495	4.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	5.5916	5.5916	4.9000e-004	1.0000e-004	5.6321
Unmitigated	0.2542	9.0800e-003	0.4001	4.0000e-004		0.0243	0.0243		0.0243	0.0243	2.5493	5.3034	7.8527	7.9900e-003	1.7000e-004	8.1040

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	0.0134					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0786	6.2200e-003	0.1526	3.9000e-004		0.0229	0.0229		0.0229	0.0229	2.5493	4.8988	7.4481	7.6000e-003	1.7000e-004	7.6897
Landscaping	7.4500e-003	2.8500e-003	0.2476	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	0.4046	0.4046	3.9000e-004	0.0000	0.4143
<b>Total</b>	<b>0.2542</b>	<b>9.0700e-003</b>	<b>0.4001</b>	<b>4.0000e-004</b>		<b>0.0243</b>	<b>0.0243</b>		<b>0.0243</b>	<b>0.0243</b>	<b>2.5493</b>	<b>5.3034</b>	<b>7.8527</b>	<b>7.9900e-003</b>	<b>1.7000e-004</b>	<b>8.1040</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	0.0134					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1870	5.1870	1.0000e-004	1.0000e-004	5.2178
Landscaping	7.4500e-003	2.8500e-003	0.2476	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	0.4046	0.4046	3.9000e-004	0.0000	0.4143
<b>Total</b>	<b>0.1761</b>	<b>7.3300e-003</b>	<b>0.2495</b>	<b>4.0000e-005</b>		<b>1.7300e-003</b>	<b>1.7300e-003</b>		<b>1.7300e-003</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>5.5916</b>	<b>5.5916</b>	<b>4.9000e-004</b>	<b>1.0000e-004</b>	<b>5.6321</b>

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**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.7387	0.0411	1.0400e-003	22.0777
Unmitigated	24.2693	0.0514	1.3000e-003	25.9403

**7.2 Water by Land Use**

Unmitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 0.238296	1.8533	3.0000e-005	1.0000e-005	1.8563
Condo/Townhouse	1.5637 / 0.985809	22.4160	0.0514	1.2900e-003	24.0840
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>24.2693</b>	<b>0.0514</b>	<b>1.3000e-003</b>	<b>25.9403</b>

Mitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use	Mgal	MT/yr			
City Park	0 / 0.22376	1.7402	3.0000e-005	1.0000e-005	1.7431
Condo/Townhouse	1.25096 / 0.925674	18.9985	0.0411	1.0300e-003	20.3347
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>20.7387</b>	<b>0.0411</b>	<b>1.0400e-003</b>	<b>22.0777</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

- Institute Recycling and Composting Services

Category/Year

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	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1225	0.0663	0.0000	2.7811
Unmitigated	2.2451	0.1327	0.0000	5.5621

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.02	4.0600e-003	2.4000e-004	0.0000	0.0101
Condo/Townhouse	11.04	2.2410	0.1324	0.0000	5.5520
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.2451</b>	<b>0.1327</b>	<b>0.0000</b>	<b>5.5621</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Condo/Townhouse	5.52	1.1205	0.0662	0.0000	2.7760
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.1225</b>	<b>0.0663</b>	<b>0.0000</b>	<b>2.7811</b>

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**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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