

# CalEEMod Output

4962 Almaden Expwy - Santa Clara County, Annual

**4962 Almaden Expwy**  
**Santa Clara County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	7.80	1000sqft	0.60	7,800.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	206	<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**

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Project Characteristics - PG&E CO2 intensity factor updated to the most recent (2018) value.

Land Use - 7,800 sqft of shopping center is proposed on a 0.6-acre lot.

Construction Phase - Phases are assumed to be sequential. End dates modified to match the number of days in each phase provided by the project applicant.

Off-road Equipment - Equipment updated to conserve the total hours of operation provided by project applicant.

Off-road Equipment - Equipment updated to conserve the total hours of operation provided by project applicant.

Off-road Equipment - Equipment list updated to conserve the total hours of operation provided by project applicant

Off-road Equipment - An excavator is added for removal of gas stations.

Off-road Equipment - Equipment updated to conserve the total hours of operation provided by project applicant.

Off-road Equipment - Equipment updated to conserve the total hours of operation provided by project applicant.

Trips and VMT -

Demolition - An existing 4,470-sqft gas station building and the underground storage tanks would be demolished.

Grading - approximately 2,000 CY of cut and 1,000 CY of fill estimated by the project applicant.

Vehicle Trips - Adjusted based on the 215 daily trip rates.

Energy Use - Electricity energy intensity updated to 2019 values.

Water And Wastewater - No septic tank or lagoons are used for water treatment

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	140.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	NumDays	1.00	10.00
tblEnergyUse	LightingElect	5.25	4.33
tblEnergyUse	T24E	2.76	2.46
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LotAcreage	0.18	0.60
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	4.00	0.10
tblOffRoadEquipment	UsageHours	6.00	0.90
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	7.00	3.20
tblOffRoadEquipment	UsageHours	7.00	3.20
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.10
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	6.00	0.80
tblOffRoadEquipment	UsageHours	7.00	3.20
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblVehicleTrips	ST_TR	49.97	32.30
tblVehicleTrips	SU_TR	25.24	16.30
tblVehicleTrips	WD_TR	42.70	27.60
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	0.2069	0.2069
2	9-1-2021	11-30-2021	0.0163	0.0163
3	12-1-2021	2-28-2022	0.0617	0.0617
		Highest	0.2069	0.2069

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	0.0345	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Energy	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8885	7.8885	9.9000e-004	2.2000e-004	7.9786
Mobile	0.0443	0.1778	0.4611	1.5000e-003	0.1356	1.3000e-003	0.1369	0.0363	1.2100e-003	0.0375	0.0000	137.6099	137.6099	4.9400e-003	0.0000	137.7335
Waste						0.0000	0.0000		0.0000	0.0000	1.6625	0.0000	1.6625	0.0983	0.0000	4.1188
Water						0.0000	0.0000		0.0000	0.0000	0.2044	0.4079	0.6123	7.6000e-004	4.6000e-004	0.7674
<b>Total</b>	<b>0.0790</b>	<b>0.1787</b>	<b>0.4619</b>	<b>1.5100e-003</b>	<b>0.1356</b>	<b>1.3700e-003</b>	<b>0.1369</b>	<b>0.0363</b>	<b>1.2800e-003</b>	<b>0.0376</b>	<b>1.8669</b>	<b>145.9065</b>	<b>147.7734</b>	<b>0.1049</b>	<b>6.8000e-004</b>	<b>150.5984</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0345	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Energy	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8885	7.8885	9.9000e-004	2.2000e-004	7.9786
Mobile	0.0443	0.1778	0.4611	1.5000e-003	0.1356	1.3000e-003	0.1369	0.0363	1.2100e-003	0.0375	0.0000	137.6099	137.6099	4.9400e-003	0.0000	137.7335
Waste						0.0000	0.0000		0.0000	0.0000	1.6625	0.0000	1.6625	0.0983	0.0000	4.1188
Water						0.0000	0.0000		0.0000	0.0000	0.2044	0.4079	0.6123	7.6000e-004	4.6000e-004	0.7674
<b>Total</b>	<b>0.0790</b>	<b>0.1787</b>	<b>0.4619</b>	<b>1.5100e-003</b>	<b>0.1356</b>	<b>1.3700e-003</b>	<b>0.1369</b>	<b>0.0363</b>	<b>1.2800e-003</b>	<b>0.0376</b>	<b>1.8669</b>	<b>145.9065</b>	<b>147.7734</b>	<b>0.1049</b>	<b>6.8000e-004</b>	<b>150.5984</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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/28/2021	5	20	
2	Site Preparation	Site Preparation	6/22/2021	7/5/2021	5	10	
3	Grading	Grading	7/6/2021	7/12/2021	5	5	
4	Building Construction	Building Construction	7/13/2021	1/24/2022	5	140	
5	Paving	Paving	1/25/2022	1/31/2022	5	5	
6	Architectural Coating	Architectural Coating	2/1/2022	2/7/2022	5	5	

**Acres of Grading (Site Preparation Phase): 1.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 11,700; Non-Residential Outdoor: 3,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.20	81	0.73
Demolition	Cranes	1	2.00	231	0.29
Demolition	Excavators	1	4.00	158	0.38
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	3.00	97	0.37
Site Preparation	Graders	1	2.40	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	3.20	158	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	0.80	97	0.37
Building Construction	Cement and Mortar Mixers	1	0.30	9	0.56
Building Construction	Cranes	1	0.10	231	0.29
Building Construction	Forklifts	1	0.90	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	0.10	97	0.37
Building Construction	Trenchers	1	0.20	78	0.50
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Paving	Pavers	1	3.20	130	0.42
Paving	Rollers	1	3.20	80	0.38
Paving	Tractors/Loaders/Backhoes	1	3.20	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	20.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	198.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	99.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2000e-003	0.0000	2.2000e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3900e-003	0.0965	0.0640	1.2000e-004		4.7700e-003	4.7700e-003		4.4100e-003	4.4100e-003	0.0000	10.1426	10.1426	3.0700e-003	0.0000	10.2193
<b>Total</b>	<b>9.3900e-003</b>	<b>0.0965</b>	<b>0.0640</b>	<b>1.2000e-004</b>	<b>2.2000e-003</b>	<b>4.7700e-003</b>	<b>6.9700e-003</b>	<b>3.3000e-004</b>	<b>4.4100e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>10.1426</b>	<b>10.1426</b>	<b>3.0700e-003</b>	<b>0.0000</b>	<b>10.2193</b>

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**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.6700e-003	5.8000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7530	0.7530	3.0000e-005	0.0000	0.7539
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	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
<b>Total</b>	<b>5.4000e-004</b>	<b>2.9900e-003</b>	<b>4.0100e-003</b>	<b>2.0000e-005</b>	<b>1.3600e-003</b>	<b>2.0000e-005</b>	<b>1.3800e-003</b>	<b>3.7000e-004</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.7378</b>	<b>1.7378</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7393</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2000e-003	0.0000	2.2000e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3900e-003	0.0965	0.0640	1.2000e-004		4.7700e-003	4.7700e-003		4.4100e-003	4.4100e-003	0.0000	10.1426	10.1426	3.0700e-003	0.0000	10.2193
<b>Total</b>	<b>9.3900e-003</b>	<b>0.0965</b>	<b>0.0640</b>	<b>1.2000e-004</b>	<b>2.2000e-003</b>	<b>4.7700e-003</b>	<b>6.9700e-003</b>	<b>3.3000e-004</b>	<b>4.4100e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>10.1426</b>	<b>10.1426</b>	<b>3.0700e-003</b>	<b>0.0000</b>	<b>10.2193</b>

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**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.6700e-003	5.8000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7530	0.7530	3.0000e-005	0.0000	0.7539
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	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
<b>Total</b>	<b>5.4000e-004</b>	<b>2.9900e-003</b>	<b>4.0100e-003</b>	<b>2.0000e-005</b>	<b>1.3600e-003</b>	<b>2.0000e-005</b>	<b>1.3800e-003</b>	<b>3.7000e-004</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.7378</b>	<b>1.7378</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7393</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1500e-003	0.0136	8.3000e-003	2.0000e-005		5.6000e-004	5.6000e-004		5.2000e-004	5.2000e-004	0.0000	1.5556	1.5556	5.0000e-004	0.0000	1.5682
<b>Total</b>	<b>1.1500e-003</b>	<b>0.0136</b>	<b>8.3000e-003</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>5.6000e-004</b>	<b>1.3600e-003</b>	<b>9.0000e-005</b>	<b>5.2000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>1.5556</b>	<b>1.5556</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>1.5682</b>

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**3.3 Site Preparation - 2021**

**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	7.8000e-004	0.0265	5.7700e-003	8.0000e-005	1.6800e-003	8.0000e-005	1.7600e-003	4.6000e-004	8.0000e-005	5.4000e-004	0.0000	7.4550	7.4550	3.4000e-004	0.0000	7.4635
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	8.0000e-005	5.0000e-005	5.7000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1641	0.1641	0.0000	0.0000	0.1642
<b>Total</b>	<b>8.6000e-004</b>	<b>0.0265</b>	<b>6.3400e-003</b>	<b>8.0000e-005</b>	<b>1.8800e-003</b>	<b>8.0000e-005</b>	<b>1.9600e-003</b>	<b>5.1000e-004</b>	<b>8.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.6192</b>	<b>7.6192</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>7.6277</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					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1500e-003	0.0136	8.3000e-003	2.0000e-005		5.6000e-004	5.6000e-004		5.2000e-004	5.2000e-004	0.0000	1.5556	1.5556	5.0000e-004	0.0000	1.5682
<b>Total</b>	<b>1.1500e-003</b>	<b>0.0136</b>	<b>8.3000e-003</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>5.6000e-004</b>	<b>1.3600e-003</b>	<b>9.0000e-005</b>	<b>5.2000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>1.5556</b>	<b>1.5556</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>1.5682</b>

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**3.3 Site Preparation - 2021**

**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	7.8000e-004	0.0265	5.7700e-003	8.0000e-005	1.6800e-003	8.0000e-005	1.7600e-003	4.6000e-004	8.0000e-005	5.4000e-004	0.0000	7.4550	7.4550	3.4000e-004	0.0000	7.4635
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	8.0000e-005	5.0000e-005	5.7000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1641	0.1641	0.0000	0.0000	0.1642
<b>Total</b>	<b>8.6000e-004</b>	<b>0.0265</b>	<b>6.3400e-003</b>	<b>8.0000e-005</b>	<b>1.8800e-003</b>	<b>8.0000e-005</b>	<b>1.9600e-003</b>	<b>5.1000e-004</b>	<b>8.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>7.6192</b>	<b>7.6192</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>7.6277</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0151	0.0000	0.0151	8.2800e-003	0.0000	8.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9400e-003	0.0305	0.0145	3.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	2.4667	2.4667	8.0000e-004	0.0000	2.4866
<b>Total</b>	<b>2.9400e-003</b>	<b>0.0305</b>	<b>0.0145</b>	<b>3.0000e-005</b>	<b>0.0151</b>	<b>1.4900e-003</b>	<b>0.0166</b>	<b>8.2800e-003</b>	<b>1.3700e-003</b>	<b>9.6500e-003</b>	<b>0.0000</b>	<b>2.4667</b>	<b>2.4667</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4866</b>

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**3.4 Grading - 2021**

**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	3.9000e-004	0.0132	2.8800e-003	4.0000e-005	8.4000e-004	4.0000e-005	8.8000e-004	2.3000e-004	4.0000e-005	2.7000e-004	0.0000	3.7275	3.7275	1.7000e-004	0.0000	3.7317
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	8.0000e-005	5.0000e-005	5.7000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1641	0.1641	0.0000	0.0000	0.1642
<b>Total</b>	<b>4.7000e-004</b>	<b>0.0133</b>	<b>3.4500e-003</b>	<b>4.0000e-005</b>	<b>1.0400e-003</b>	<b>4.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>4.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.8917</b>	<b>3.8917</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>3.8960</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					0.0151	0.0000	0.0151	8.2800e-003	0.0000	8.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9400e-003	0.0305	0.0145	3.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	2.4667	2.4667	8.0000e-004	0.0000	2.4866
<b>Total</b>	<b>2.9400e-003</b>	<b>0.0305</b>	<b>0.0145</b>	<b>3.0000e-005</b>	<b>0.0151</b>	<b>1.4900e-003</b>	<b>0.0166</b>	<b>8.2800e-003</b>	<b>1.3700e-003</b>	<b>9.6500e-003</b>	<b>0.0000</b>	<b>2.4667</b>	<b>2.4667</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4866</b>

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**3.4 Grading - 2021**

**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	3.9000e-004	0.0132	2.8800e-003	4.0000e-005	8.4000e-004	4.0000e-005	8.8000e-004	2.3000e-004	4.0000e-005	2.7000e-004	0.0000	3.7275	3.7275	1.7000e-004	0.0000	3.7317
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	8.0000e-005	5.0000e-005	5.7000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1641	0.1641	0.0000	0.0000	0.1642
<b>Total</b>	<b>4.7000e-004</b>	<b>0.0133</b>	<b>3.4500e-003</b>	<b>4.0000e-005</b>	<b>1.0400e-003</b>	<b>4.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>4.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.8917</b>	<b>3.8917</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>3.8960</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2400e-003	0.0212	0.0179	3.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	2.3189	2.3189	7.3000e-004	0.0000	2.3370
<b>Total</b>	<b>2.2400e-003</b>	<b>0.0212</b>	<b>0.0179</b>	<b>3.0000e-005</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>		<b>1.2300e-003</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>2.3189</b>	<b>2.3189</b>	<b>7.3000e-004</b>	<b>0.0000</b>	<b>2.3370</b>



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**3.5 Building Construction - 2021**

**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	2.0000e-004	6.3700e-003	1.7000e-003	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.6060	1.6060	7.0000e-005	0.0000	1.6077
Worker	5.7000e-004	4.0000e-004	4.2500e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2212	1.2212	3.0000e-005	0.0000	1.2219
<b>Total</b>	<b>7.7000e-004</b>	<b>6.7700e-003</b>	<b>5.9500e-003</b>	<b>3.0000e-005</b>	<b>1.8900e-003</b>	<b>2.0000e-005</b>	<b>1.9000e-003</b>	<b>5.1000e-004</b>	<b>2.0000e-005</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>2.8272</b>	<b>2.8272</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.8296</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	2.2400e-003	0.0212	0.0179	3.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	2.3189	2.3189	7.3000e-004	0.0000	2.3370
<b>Total</b>	<b>2.2400e-003</b>	<b>0.0212</b>	<b>0.0179</b>	<b>3.0000e-005</b>		<b>1.3400e-003</b>	<b>1.3400e-003</b>		<b>1.2300e-003</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>2.3189</b>	<b>2.3189</b>	<b>7.3000e-004</b>	<b>0.0000</b>	<b>2.3370</b>

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**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	6.3700e-003	1.7000e-003	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.6060	1.6060	7.0000e-005	0.0000	1.6077
Worker	5.7000e-004	4.0000e-004	4.2500e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2212	1.2212	3.0000e-005	0.0000	1.2219
<b>Total</b>	<b>7.7000e-004</b>	<b>6.7700e-003</b>	<b>5.9500e-003</b>	<b>3.0000e-005</b>	<b>1.8900e-003</b>	<b>2.0000e-005</b>	<b>1.9000e-003</b>	<b>5.1000e-004</b>	<b>2.0000e-005</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>2.8272</b>	<b>2.8272</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.8296</b>

**3.5 Building Construction - 2022**

**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	2.6000e-004	2.4900e-003	2.2900e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.2993	0.2993	9.0000e-005	0.0000	0.3016
<b>Total</b>	<b>2.6000e-004</b>	<b>2.4900e-003</b>	<b>2.2900e-003</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.2993</b>	<b>0.2993</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3016</b>

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**3.5 Building Construction - 2022**

**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	2.0000e-005	7.8000e-004	2.1000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2052	0.2052	1.0000e-005	0.0000	0.2055
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1519	0.1519	0.0000	0.0000	0.1519
<b>Total</b>	<b>9.0000e-005</b>	<b>8.3000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.3571</b>	<b>0.3571</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3574</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	2.6000e-004	2.4900e-003	2.2900e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.2993	0.2993	9.0000e-005	0.0000	0.3016
<b>Total</b>	<b>2.6000e-004</b>	<b>2.4900e-003</b>	<b>2.2900e-003</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.2993</b>	<b>0.2993</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3016</b>

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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	7.8000e-004	2.1000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2052	0.2052	1.0000e-005	0.0000	0.2055
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1519	0.1519	0.0000	0.0000	0.1519
<b>Total</b>	<b>9.0000e-005</b>	<b>8.3000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.3571</b>	<b>0.3571</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3574</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4000e-004	5.5000e-003	6.9800e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	0.9168	0.9168	3.0000e-004	0.0000	0.9242
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.4000e-004</b>	<b>5.5000e-003</b>	<b>6.9800e-003</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.9168</b>	<b>0.9168</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.9242</b>

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**3.6 Paving - 2022**

**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	6.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1265	0.1265	0.0000	0.0000	0.1266
<b>Total</b>	<b>6.0000e-005</b>	<b>4.0000e-005</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1265</b>	<b>0.1265</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1266</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4000e-004	5.5000e-003	6.9800e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	0.9168	0.9168	3.0000e-004	0.0000	0.9242
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.4000e-004</b>	<b>5.5000e-003</b>	<b>6.9800e-003</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.9168</b>	<b>0.9168</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.9242</b>

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**3.6 Paving - 2022**

**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	6.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1265	0.1265	0.0000	0.0000	0.1266
<b>Total</b>	<b>6.0000e-005</b>	<b>4.0000e-005</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1265</b>	<b>0.1265</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1266</b>

**3.7 Architectural Coating - 2022**

**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	0.0407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	4.6900e-003	6.0500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.8511	0.8511	6.0000e-005	0.0000	0.8525
<b>Total</b>	<b>0.0414</b>	<b>4.6900e-003</b>	<b>6.0500e-003</b>	<b>1.0000e-005</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8511</b>	<b>0.8511</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.8525</b>

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**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0158	0.0158	0.0000	0.0000	0.0158
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0158</b>	<b>0.0158</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0158</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	0.0407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	4.6900e-003	6.0500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.8511	0.8511	6.0000e-005	0.0000	0.8525
<b>Total</b>	<b>0.0414</b>	<b>4.6900e-003</b>	<b>6.0500e-003</b>	<b>1.0000e-005</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>		<b>2.7000e-004</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8511</b>	<b>0.8511</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.8525</b>

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**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0158	0.0158	0.0000	0.0000	0.0158
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0158</b>	<b>0.0158</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0158</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0443	0.1778	0.4611	1.5000e-003	0.1356	1.3000e-003	0.1369	0.0363	1.2100e-003	0.0375	0.0000	137.6099	137.6099	4.9400e-003	0.0000	137.7335
Unmitigated	0.0443	0.1778	0.4611	1.5000e-003	0.1356	1.3000e-003	0.1369	0.0363	1.2100e-003	0.0375	0.0000	137.6099	137.6099	4.9400e-003	0.0000	137.7335

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	215.28	251.94	127.14	364,557	364,557
Total	215.28	251.94	127.14	364,557	364,557

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
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

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**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	6.9020	6.9020	9.7000e-004	2.0000e-004	6.9862
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9020	6.9020	9.7000e-004	2.0000e-004	6.9862
NaturalGas Mitigated	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9865	0.9865	2.0000e-005	2.0000e-005	0.9924
NaturalGas Unmitigated	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9865	0.9865	2.0000e-005	2.0000e-005	0.9924

**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					
Regional Shopping Center	18486	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9865	0.9865	2.0000e-005	2.0000e-005	0.9924
<b>Total</b>		<b>1.0000e-004</b>	<b>9.1000e-004</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.9865</b>	<b>0.9865</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9924</b>

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Regional Shopping Center	18486	1.0000e-004	9.1000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9865	0.9865	2.0000e-005	2.0000e-005	0.9924
<b>Total</b>		<b>1.0000e-004</b>	<b>9.1000e-004</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.9865</b>	<b>0.9865</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9924</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	73866	6.9020	9.7000e-004	2.0000e-004	6.9862
<b>Total</b>		<b>6.9020</b>	<b>9.7000e-004</b>	<b>2.0000e-004</b>	<b>6.9862</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	73866	6.9020	9.7000e-004	2.0000e-004	6.9862
<b>Total</b>		<b>6.9020</b>	<b>9.7000e-004</b>	<b>2.0000e-004</b>	<b>6.9862</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0345	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Unmitigated	0.0345	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
<b>Total</b>	<b>0.0345</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
<b>Total</b>	<b>0.0345</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>

**7.0 Water Detail**

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6123	7.6000e-004	4.6000e-004	0.7674
Unmitigated	0.6123	7.6000e-004	4.6000e-004	0.7674

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	0.577766 / 0.354114	0.6123	7.6000e-004	4.6000e-004	0.7674
<b>Total</b>		<b>0.6123</b>	<b>7.6000e-004</b>	<b>4.6000e-004</b>	<b>0.7674</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	0.577766 / 0.354114	0.6123	7.6000e-004	4.6000e-004	0.7674
<b>Total</b>		<b>0.6123</b>	<b>7.6000e-004</b>	<b>4.6000e-004</b>	<b>0.7674</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.6625	0.0983	0.0000	4.1188
Unmitigated	1.6625	0.0983	0.0000	4.1188

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	8.19	1.6625	0.0983	0.0000	4.1188
<b>Total</b>		<b>1.6625</b>	<b>0.0983</b>	<b>0.0000</b>	<b>4.1188</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	8.19	1.6625	0.0983	0.0000	4.1188
<b>Total</b>		<b>1.6625</b>	<b>0.0983</b>	<b>0.0000</b>	<b>4.1188</b>

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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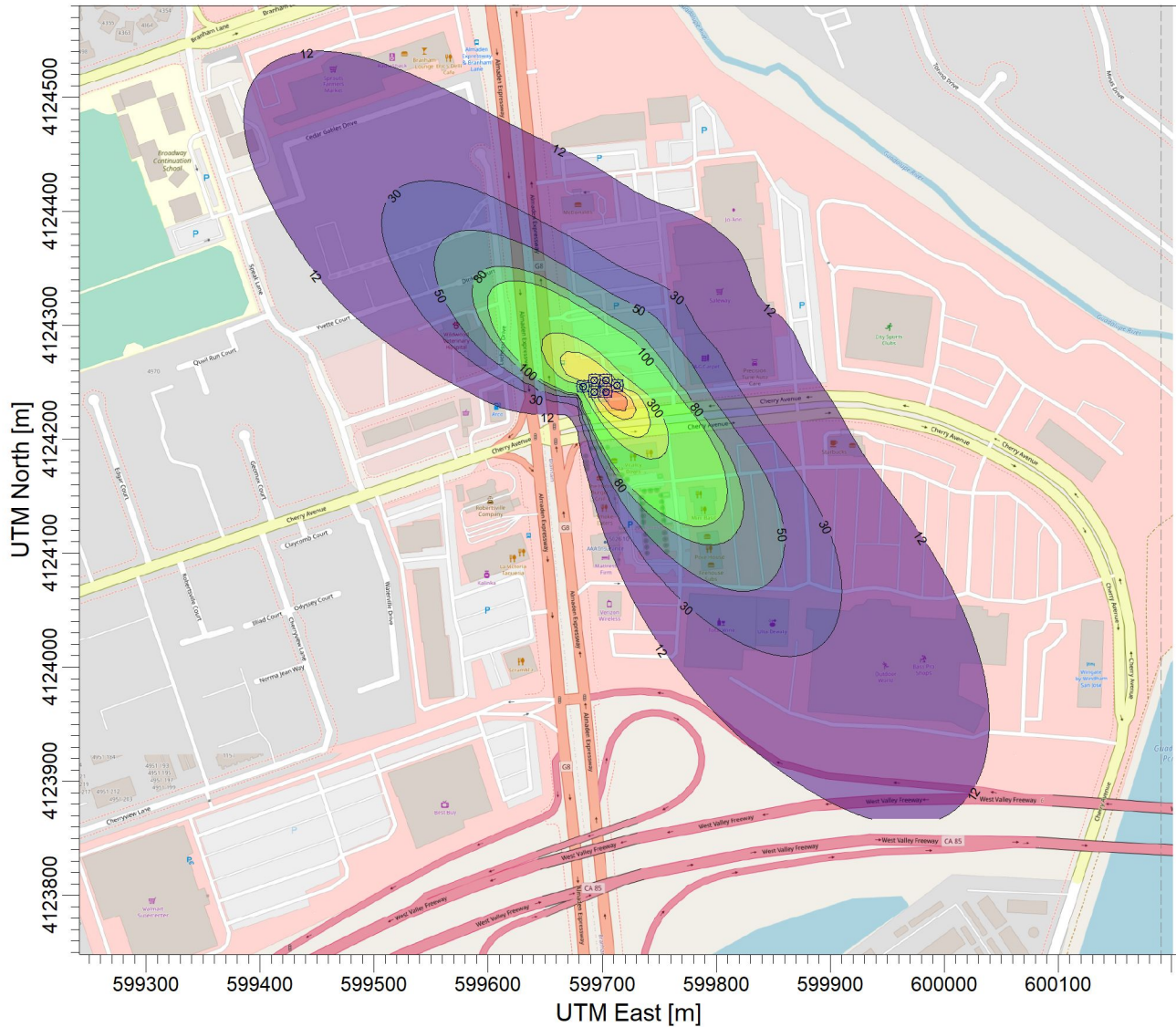
**11.0 Vegetation**

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# ISCST3 Dispersion Model Output

PROJECT TITLE:

**4962 Almaden Expy San Jose  
ISCST3 Output**



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL

ug/m<sup>3</sup>

Max: 1208 [ug/m<sup>3</sup>] at (599708.44, 4124236.75)



COMMENTS:	SOURCES: <b>6</b>	COMPANY NAME:	
	RECEPTORS: <b>5625</b>	MODELER:	
	OUTPUT TYPE: <b>Concentration</b>	SCALE: 1:6,053	
	MAX: <b>1208 ug/m<sup>3</sup></b>	DATE: <b>12/16/2020</b>	PROJECT NO.:

# ISCST3 Model Parameters and Health Risk Assessment

**Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and PM<sub>2.5</sub> Emissions during Construction**

ISCST3 Model Parameters and Assumptions			
Source Type	Units	Value	Notes
<b>Volume Source: Off-Road Equipment Exhaust</b>			
Hours/Work Day	hours/day	12.00	Assume construction from 7AM-7PM, Monday through Friday
DPM Emission Rate	gram/second	0.001069	Exhaust PM <sub>10</sub> from off-road equipment
Number of Sources	count	6	SMAQMD, 2015
Emission Rate/Source	gram/second	0.000178	Scaling factor is (1/Emission Rate) to convert result from ISCST3
Release Height	meters	5.0	SMAQMD, 2015
Length of Side	meters	10.0	SMAQMD, 2015
Initial Lateral Dimension	meters	2.3	ISCST3 Calculator
Initial Vertical Dimension	meters	1.0	SMAQMD, 2015
ISCST3 Model Results			
Sensitive Receptor	Pollutant	Annual Average Concentration	Notes
MEIR	DPM (µg/m <sup>3</sup> )	0.0174	Nearest residential receptor under the default equipment scenario
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	0.0160	Nearest residential receptor under the default equipment scenario

Notes:

DPM = diesel particulate matter

PM<sub>10</sub> = particulate matter with aerodynamic resistance diameters equal to or less than 10 microns

PM<sub>2.5</sub> = particulate matter with aerodynamic resistance diameters equal to or less than 2.5 microns

µg/m<sup>3</sup> = micrograms per cubic meter

Sacramento Metropolitan Air Quality Management District (SMAQMD), 2015. *Guide to Air Quality Assessment in Sacramento County*. June.

**Summary of Health Risk Assessment at MEIR for DPM Emissions during Construction**

Health Risk Assessment Parameters and Results				
DPM Emissions				
Inhalation Cancer Risk Assessment for DPM	Units	Age Group		Notes
		3rd Trimester	0-2 Years	
Default Eq. DPM Concentration (C)	µg/m <sup>3</sup>	0.017	0.017	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile (OEHHA, 2015)
Inhalation absorption factor (A)	unitless	1.0	1.0	OEHHA, 2015
Exposure Frequency (EF)	unitless	0.96	0.96	350 days/365 days in a year (OEHHA, 2015)
Dose Conversion Factor (CF <sub>D</sub> )	mg-m <sup>3</sup> /µg-L	0.000001	0.000001	Conversion of µg to mg and L to m <sup>3</sup>
Dose	mg/kg/day	0.000006	0.000018	C*DBR*A*EF*CF <sub>D</sub> (OEHHA, 2015)
Cancer Potency Factor (CPF)	(mg/kg/day) <sup>-1</sup>	1.1	1.1	OEHHA, 2015
Age Sensitivity Factor (ASF)	unitless	10	10	OEHHA, 2015
Annual Exposure Duration (ED)	years	0.25	0.42	Based on total construction period of 8 months
Averaging Time (AT)	years	70	70	70 years for residents (OEHHA, 2015)
Fraction of time at home (FAH)	unitless	0.85	0.85	OEHHA, 2015
Cancer Risk Conversion Factor (CF)	m <sup>3</sup> /L	1000000	1000000	Chances per million (OEHHA, 2015)
Cancer Risk	per million	0.20	1.01	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Default Eq. Cancer Risk	per million	1.21		At MEIR location under default equipment scenario
Hazard Index for DPM	Units	Value	Notes	
Chronic REL	µg/m <sup>3</sup>	5.0	OEHHA, 2015	
Total Default Eq. Chronic Hazard Index for DPM	unitless	0.0	At MEIR location under default equipment scenario	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

µg/m<sup>3</sup> = micrograms per cubic meter

L/kg-day = liters per kilogram-day

m<sup>3</sup>/L = cubic meters per liter

(mg/kg/day)<sup>-1</sup> = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

Office of Environmental Health Hazard Assessment (OEHHA), 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. February.