

# Oakley Logistics Center Project

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SCH# 2019029113

## Final Environmental Impact Report

**Volume II of II (Appendices A and B)**

Prepared for  
City of Oakley



**December 2019**

Prepared by



1501 SPORTS DRIVE, SUITE A, SACRAMENTO, CA 95834

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# **Appendix A**

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**Oakley Logistics Center FEIR  
CalEEMod Results**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	245.88	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

Project Characteristics - PG&E calculator

Land Use - questionnaire and site plan

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Architectural Coating - Mitigation

Vehicle Trips - TIA trip rate

Energy Use -

Construction Off-road Equipment Mitigation - Mitigation

Mobile Land Use Mitigation - applicant provided

Area Mitigation - Mitigation

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00

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tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialImported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	245.88
tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 2.0 Emissions Summary

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**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					
2020	0.9186	8.9556	6.6242	0.0217	1.3205	0.2717	1.5922	0.4415	0.2529	0.6945	0.0000	1,991.5496	1,991.5496	0.2248	0.0000	1,997.1695
2021	0.8713	7.6989	6.7431	0.0255	1.4749	0.1742	1.6490	0.4197	0.1633	0.5830	0.0000	2,353.2351	2,353.2351	0.1778	0.0000	2,357.6790
2022	0.8815	7.8514	7.0960	0.0300	1.6616	0.1348	1.7964	0.4502	0.1274	0.5777	0.0000	2,782.3035	2,782.3035	0.1622	0.0000	2,786.3572
2023	0.5277	4.2600	4.4405	0.0194	1.1076	0.0752	1.1828	0.3001	0.0711	0.3712	0.0000	1,795.8799	1,795.8799	0.0991	0.0000	1,798.3576
<b>Maximum</b>	<b>0.9186</b>	<b>8.9556</b>	<b>7.0960</b>	<b>0.0300</b>	<b>1.6616</b>	<b>0.2717</b>	<b>1.7964</b>	<b>0.4502</b>	<b>0.2529</b>	<b>0.6945</b>	<b>0.0000</b>	<b>2,782.3035</b>	<b>2,782.3035</b>	<b>0.2248</b>	<b>0.0000</b>	<b>2,786.3572</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**2.1 Overall Construction**

**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					
2020	0.4993	4.1960	6.7753	0.0217	1.3205	0.0318	1.3523	0.4415	0.0307	0.4722	0.0000	1,991.548 9	1,991.548 9	0.2248	0.0000	1,997.168 8
2021	0.6084	4.9679	6.9314	0.0255	1.4749	0.0234	1.4983	0.4197	0.0225	0.4422	0.0000	2,353.234 6	2,353.234 6	0.1778	0.0000	2,357.678 5
2022	0.6796	5.9455	7.2411	0.0300	1.6616	0.0248	1.6864	0.4502	0.0237	0.4739	0.0000	2,782.303 1	2,782.303 1	0.1622	0.0000	2,786.356 8
2023	0.4059	3.1082	4.5470	0.0194	1.1076	0.0125	1.1201	0.3001	0.0119	0.3120	0.0000	1,795.879 7	1,795.879 7	0.0991	0.0000	1,798.357 4
<b>Maximum</b>	<b>0.6796</b>	<b>5.9455</b>	<b>7.2411</b>	<b>0.0300</b>	<b>1.6616</b>	<b>0.0318</b>	<b>1.6864</b>	<b>0.4502</b>	<b>0.0307</b>	<b>0.4739</b>	<b>0.0000</b>	<b>2,782.303 1</b>	<b>2,782.303 1</b>	<b>0.2248</b>	<b>0.0000</b>	<b>2,786.356 8</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>31.44</b>	<b>36.67</b>	<b>-2.37</b>	<b>0.00</b>	<b>0.00</b>	<b>85.91</b>	<b>9.06</b>	<b>0.00</b>	<b>85.57</b>	<b>23.63</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-2-2020	6-1-2020	2.2386	0.4487
2	6-2-2020	9-1-2020	2.5864	1.5244
3	9-2-2020	12-1-2020	4.3836	2.0729
4	12-2-2020	3-1-2021	3.3447	1.4267
5	3-2-2021	6-1-2021	1.2727	0.7849
6	6-2-2021	9-1-2021	2.3538	1.7506
7	9-2-2021	12-1-2021	2.3559	1.7592
8	12-2-2021	3-1-2022	2.2329	1.6888

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9	3-2-2022	6-1-2022	2.2016	1.6688
10	6-2-2022	9-1-2022	2.1896	1.6568
11	9-2-2022	12-1-2022	2.1906	1.6636
12	12-2-2022	3-1-2023	1.9275	1.4381
13	3-2-2023	6-1-2023	1.8225	1.3385
14	6-2-2023	9-1-2023	1.7564	1.2867
15	9-2-2023	9-30-2023	0.0095	0.0042
		Highest	4.3836	2.0729

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	8.8381	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Energy	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	5,360.9184	5,360.9184	0.4712	0.1209	5,408.7318
Mobile	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119
Waste						0.0000	0.0000		0.0000	0.0000	490.5825	0.0000	490.5825	28.9926	0.0000	1,215.3973
Water						0.0000	0.0000		0.0000	0.0000	145.6515	277.0603	422.7118	14.9925	0.3600	904.8020
<b>Total</b>	<b>9.9761</b>	<b>6.0091</b>	<b>12.9518</b>	<b>0.0552</b>	<b>4.3099</b>	<b>0.1513</b>	<b>4.4612</b>	<b>1.1566</b>	<b>0.1488</b>	<b>1.3054</b>	<b>636.2339</b>	<b>9,885.4408</b>	<b>10,521.6748</b>	<b>44.5968</b>	<b>0.4809</b>	<b>11,779.9066</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	7.7916	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Energy	0.1156	1.0506	0.8825	6.3000e-003		0.0798	0.0798		0.0798	0.0798	0.0000	4,496.7360	4,496.7360	0.4174	0.1028	4,537.8022
Mobile	0.9467	4.3511	11.0463	0.0432	4.0125	0.0351	4.0476	1.0768	0.0327	1.1095	0.0000	3,973.7260	3,973.7260	0.1331	0.0000	3,977.0525
Waste						0.0000	0.0000		0.0000	0.0000	490.5825	0.0000	490.5825	28.9926	0.0000	1,215.3973
Water						0.0000	0.0000		0.0000	0.0000	145.6515	277.0603	422.7118	14.9925	0.3600	904.8020
<b>Total</b>	<b>8.8539</b>	<b>5.4020</b>	<b>11.9594</b>	<b>0.0495</b>	<b>4.0125</b>	<b>0.1150</b>	<b>4.1275</b>	<b>1.0768</b>	<b>0.1127</b>	<b>1.1895</b>	<b>636.2339</b>	<b>8,747.5822</b>	<b>9,383.8161</b>	<b>44.5357</b>	<b>0.4628</b>	<b>10,635.1176</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>11.25</b>	<b>10.10</b>	<b>7.66</b>	<b>10.27</b>	<b>6.90</b>	<b>24.00</b>	<b>7.48</b>	<b>6.90</b>	<b>24.30</b>	<b>8.88</b>	<b>0.00</b>	<b>11.51</b>	<b>10.81</b>	<b>0.14</b>	<b>3.77</b>	<b>9.72</b>

**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	3/2/2020	5/4/2020	5	46	
2	Grading	Grading	5/5/2020	6/16/2020	5	31	
3	Paving	Paving	6/17/2020	7/1/2020	5	11	
4	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
5	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
6	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
7	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
8	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
9	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	

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

**Acres of Grading (Grading Phase): 40.08**

**Acres of Paving: 17.01**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)**

**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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

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Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading 2	Excavators	2	8.00	158	0.38
Grading 2	Graders	1	8.00	187	0.41
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Construction 2	Cranes	1	7.00	231	0.29
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74
Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45
Architectural Coating 2	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

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	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.1000e-003	0.0000	7.1000e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.7636	0.5003	8.9000e-004		0.0382	0.0382		0.0355	0.0355	0.0000	78.1968	78.1968	0.0221	0.0000	78.7487
<b>Total</b>	<b>0.0762</b>	<b>0.7636</b>	<b>0.5003</b>	<b>8.9000e-004</b>	<b>7.1000e-003</b>	<b>0.0382</b>	<b>0.0453</b>	<b>1.0700e-003</b>	<b>0.0355</b>	<b>0.0365</b>	<b>0.0000</b>	<b>78.1968</b>	<b>78.1968</b>	<b>0.0221</b>	<b>0.0000</b>	<b>78.7487</b>

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**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	1.9400e-003	3.0000e-005	5.6000e-004	3.0000e-005	5.9000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.5290	2.5290	1.3000e-004	0.0000	2.5323
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	1.1400e-003	8.2000e-004	8.4700e-003	3.0000e-005	2.7300e-003	2.0000e-005	2.7400e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.3884	2.3884	6.0000e-005	0.0000	2.3898
<b>Total</b>	<b>1.4200e-003</b>	<b>0.0105</b>	<b>0.0104</b>	<b>6.0000e-005</b>	<b>3.2900e-003</b>	<b>5.0000e-005</b>	<b>3.3300e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.9174</b>	<b>4.9174</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.9221</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					7.1000e-003	0.0000	7.1000e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0461	0.5354	8.9000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	78.1967	78.1967	0.0221	0.0000	78.7486
<b>Total</b>	<b>0.0106</b>	<b>0.0461</b>	<b>0.5354</b>	<b>8.9000e-004</b>	<b>7.1000e-003</b>	<b>1.4200e-003</b>	<b>8.5200e-003</b>	<b>1.0700e-003</b>	<b>1.4200e-003</b>	<b>2.4900e-003</b>	<b>0.0000</b>	<b>78.1967</b>	<b>78.1967</b>	<b>0.0221</b>	<b>0.0000</b>	<b>78.7486</b>

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**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	1.9400e-003	3.0000e-005	5.6000e-004	3.0000e-005	5.9000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.5290	2.5290	1.3000e-004	0.0000	2.5323
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	1.1400e-003	8.2000e-004	8.4700e-003	3.0000e-005	2.7300e-003	2.0000e-005	2.7400e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.3884	2.3884	6.0000e-005	0.0000	2.3898
<b>Total</b>	<b>1.4200e-003</b>	<b>0.0105</b>	<b>0.0104</b>	<b>6.0000e-005</b>	<b>3.2900e-003</b>	<b>5.0000e-005</b>	<b>3.3300e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.9174</b>	<b>4.9174</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.9221</b>

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1160	0.0000	0.1160	0.0538	0.0000	0.0538	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0690	0.7781	0.4954	9.6000e-004		0.0337	0.0337		0.0310	0.0310	0.0000	84.4507	84.4507	0.0273	0.0000	85.1335
<b>Total</b>	<b>0.0690</b>	<b>0.7781</b>	<b>0.4954</b>	<b>9.6000e-004</b>	<b>0.1160</b>	<b>0.0337</b>	<b>0.1497</b>	<b>0.0538</b>	<b>0.0310</b>	<b>0.0848</b>	<b>0.0000</b>	<b>84.4507</b>	<b>84.4507</b>	<b>0.0273</b>	<b>0.0000</b>	<b>85.1335</b>



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**3.3 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4568	0.0918	1.2300e-003	0.0264	1.4700e-003	0.0279	7.2600e-003	1.4100e-003	8.6700e-003	0.0000	119.7458	119.7458	6.1600e-003	0.0000	119.8999
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	1.0300e-003	7.4000e-004	7.6100e-003	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1461	2.1461	5.0000e-005	0.0000	2.1474
<b>Total</b>	<b>0.0141</b>	<b>0.4576</b>	<b>0.0994</b>	<b>1.2500e-003</b>	<b>0.0288</b>	<b>1.4900e-003</b>	<b>0.0303</b>	<b>7.9100e-003</b>	<b>1.4300e-003</b>	<b>9.3400e-003</b>	<b>0.0000</b>	<b>121.8919</b>	<b>121.8919</b>	<b>6.2100e-003</b>	<b>0.0000</b>	<b>122.0473</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					0.1160	0.0000	0.1160	0.0538	0.0000	0.0538	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.0512	0.5115	9.6000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	84.4506	84.4506	0.0273	0.0000	85.1334
<b>Total</b>	<b>0.0118</b>	<b>0.0512</b>	<b>0.5115</b>	<b>9.6000e-004</b>	<b>0.1160</b>	<b>1.5700e-003</b>	<b>0.1176</b>	<b>0.0538</b>	<b>1.5700e-003</b>	<b>0.0554</b>	<b>0.0000</b>	<b>84.4506</b>	<b>84.4506</b>	<b>0.0273</b>	<b>0.0000</b>	<b>85.1334</b>

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**3.3 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4568	0.0918	1.2300e-003	0.0264	1.4700e-003	0.0279	7.2600e-003	1.4100e-003	8.6700e-003	0.0000	119.7458	119.7458	6.1600e-003	0.0000	119.8999
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	1.0300e-003	7.4000e-004	7.6100e-003	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1461	2.1461	5.0000e-005	0.0000	2.1474
<b>Total</b>	<b>0.0141</b>	<b>0.4576</b>	<b>0.0994</b>	<b>1.2500e-003</b>	<b>0.0288</b>	<b>1.4900e-003</b>	<b>0.0303</b>	<b>7.9100e-003</b>	<b>1.4300e-003</b>	<b>9.3400e-003</b>	<b>0.0000</b>	<b>121.8919</b>	<b>121.8919</b>	<b>6.2100e-003</b>	<b>0.0000</b>	<b>122.0473</b>

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4600e-003	0.0774	0.0806	1.3000e-004		4.1400e-003	4.1400e-003		3.8100e-003	3.8100e-003	0.0000	11.0155	11.0155	3.5600e-003	0.0000	11.1046
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0297</b>	<b>0.0774</b>	<b>0.0806</b>	<b>1.3000e-004</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>		<b>3.8100e-003</b>	<b>3.8100e-003</b>	<b>0.0000</b>	<b>11.0155</b>	<b>11.0155</b>	<b>3.5600e-003</b>	<b>0.0000</b>	<b>11.1046</b>

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**3.4 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0300e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5711	0.5711	1.0000e-005	0.0000	0.5715
<b>Total</b>	<b>2.7000e-004</b>	<b>2.0000e-004</b>	<b>2.0300e-003</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>6.6000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5711</b>	<b>0.5711</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5715</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5400e-003	6.6800e-003	0.0951	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.0155	11.0155	3.5600e-003	0.0000	11.1046
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0238</b>	<b>6.6800e-003</b>	<b>0.0951</b>	<b>1.3000e-004</b>		<b>2.1000e-004</b>	<b>2.1000e-004</b>		<b>2.1000e-004</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>11.0155</b>	<b>11.0155</b>	<b>3.5600e-003</b>	<b>0.0000</b>	<b>11.1046</b>

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**3.4 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0300e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5711	0.5711	1.0000e-005	0.0000	0.5715
<b>Total</b>	<b>2.7000e-004</b>	<b>2.0000e-004</b>	<b>2.0300e-003</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>6.6000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5711</b>	<b>0.5711</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5715</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1389	1.2567	1.1036	1.7600e-003		0.0732	0.0732		0.0688	0.0688	0.0000	151.7045	151.7045	0.0370	0.0000	152.6298
<b>Total</b>	<b>0.1389</b>	<b>1.2567</b>	<b>1.1036</b>	<b>1.7600e-003</b>		<b>0.0732</b>	<b>0.0732</b>		<b>0.0688</b>	<b>0.0688</b>	<b>0.0000</b>	<b>151.7045</b>	<b>151.7045</b>	<b>0.0370</b>	<b>0.0000</b>	<b>152.6298</b>

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**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1049	3.1287	0.7866	7.3900e-003	0.1778	0.0153	0.1931	0.0514	0.0146	0.0660	0.0000	709.9757	709.9757	0.0366	0.0000	710.8912
Worker	0.2306	0.1650	1.7085	5.3300e-003	0.5497	3.7000e-003	0.5534	0.1462	3.4100e-003	0.1496	0.0000	481.5573	481.5573	0.0117	0.0000	481.8487
<b>Total</b>	<b>0.3355</b>	<b>3.2937</b>	<b>2.4951</b>	<b>0.0127</b>	<b>0.7275</b>	<b>0.0190</b>	<b>0.7464</b>	<b>0.1977</b>	<b>0.0180</b>	<b>0.2157</b>	<b>0.0000</b>	<b>1,191.5331</b>	<b>1,191.5331</b>	<b>0.0483</b>	<b>0.0000</b>	<b>1,192.7399</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	0.0215	0.1464	1.1436	1.7600e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	151.7044	151.7044	0.0370	0.0000	152.6296
<b>Total</b>	<b>0.0215</b>	<b>0.1464</b>	<b>1.1436</b>	<b>1.7600e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>151.7044</b>	<b>151.7044</b>	<b>0.0370</b>	<b>0.0000</b>	<b>152.6296</b>

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**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1049	3.1287	0.7866	7.3900e-003	0.1778	0.0153	0.1931	0.0514	0.0146	0.0660	0.0000	709.9757	709.9757	0.0366	0.0000	710.8912
Worker	0.2306	0.1650	1.7085	5.3300e-003	0.5497	3.7000e-003	0.5534	0.1462	3.4100e-003	0.1496	0.0000	481.5573	481.5573	0.0117	0.0000	481.8487
<b>Total</b>	<b>0.3355</b>	<b>3.2937</b>	<b>2.4951</b>	<b>0.0127</b>	<b>0.7275</b>	<b>0.0190</b>	<b>0.7464</b>	<b>0.1977</b>	<b>0.0180</b>	<b>0.2157</b>	<b>0.0000</b>	<b>1,191.5331</b>	<b>1,191.5331</b>	<b>0.0483</b>	<b>0.0000</b>	<b>1,192.7399</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	0.0209	0.1918	0.1823	3.0000e-004		0.0105	0.0105		9.9100e-003	9.9100e-003	0.0000	25.4801	25.4801	6.1500e-003	0.0000	25.6338
<b>Total</b>	<b>0.0209</b>	<b>0.1918</b>	<b>0.1823</b>	<b>3.0000e-004</b>		<b>0.0105</b>	<b>0.0105</b>		<b>9.9100e-003</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>25.4801</b>	<b>25.4801</b>	<b>6.1500e-003</b>	<b>0.0000</b>	<b>25.6338</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	0.0145	0.4757	0.1187	1.2300e-003	0.0299	1.0300e-003	0.0309	8.6400e-003	9.9000e-004	9.6300e-003	0.0000	118.1052	118.1052	5.8100e-003	0.0000	118.2504
Worker	0.0359	0.0247	0.2620	8.6000e-004	0.0923	6.0000e-004	0.0929	0.0246	5.6000e-004	0.0251	0.0000	78.0346	78.0346	1.7500e-003	0.0000	78.0783
<b>Total</b>	<b>0.0503</b>	<b>0.5004</b>	<b>0.3807</b>	<b>2.0900e-003</b>	<b>0.1222</b>	<b>1.6300e-003</b>	<b>0.1238</b>	<b>0.0332</b>	<b>1.5500e-003</b>	<b>0.0347</b>	<b>0.0000</b>	<b>196.1398</b>	<b>196.1398</b>	<b>7.5600e-003</b>	<b>0.0000</b>	<b>196.3287</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	3.6100e-003	0.0246	0.1921	3.0000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	25.4801	25.4801	6.1500e-003	0.0000	25.6338
<b>Total</b>	<b>3.6100e-003</b>	<b>0.0246</b>	<b>0.1921</b>	<b>3.0000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>25.4801</b>	<b>25.4801</b>	<b>6.1500e-003</b>	<b>0.0000</b>	<b>25.6338</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	0.0145	0.4757	0.1187	1.2300e-003	0.0299	1.0300e-003	0.0309	8.6400e-003	9.9000e-004	9.6300e-003	0.0000	118.1052	118.1052	5.8100e-003	0.0000	118.2504
Worker	0.0359	0.0247	0.2620	8.6000e-004	0.0923	6.0000e-004	0.0929	0.0246	5.6000e-004	0.0251	0.0000	78.0346	78.0346	1.7500e-003	0.0000	78.0783
<b>Total</b>	<b>0.0503</b>	<b>0.5004</b>	<b>0.3807</b>	<b>2.0900e-003</b>	<b>0.1222</b>	<b>1.6300e-003</b>	<b>0.1238</b>	<b>0.0332</b>	<b>1.5500e-003</b>	<b>0.0347</b>	<b>0.0000</b>	<b>196.1398</b>	<b>196.1398</b>	<b>7.5600e-003</b>	<b>0.0000</b>	<b>196.3287</b>

**3.6 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1019	0.1108	1.8000e-004		6.7100e-003	6.7100e-003		6.7100e-003	6.7100e-003	0.0000	15.4472	15.4472	1.2000e-003	0.0000	15.4771
<b>Total</b>	<b>0.0147</b>	<b>0.1019</b>	<b>0.1108</b>	<b>1.8000e-004</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>	<b>0.0000</b>	<b>15.4472</b>	<b>15.4472</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>15.4771</b>



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**3.6 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	0.0304	0.3150	9.8000e-004	0.1014	6.8000e-004	0.1020	0.0270	6.3000e-004	0.0276	0.0000	88.7919	88.7919	2.1500e-003	0.0000	88.8456
<b>Total</b>	<b>0.0425</b>	<b>0.0304</b>	<b>0.3150</b>	<b>9.8000e-004</b>	<b>0.1014</b>	<b>6.8000e-004</b>	<b>0.1020</b>	<b>0.0270</b>	<b>6.3000e-004</b>	<b>0.0276</b>	<b>0.0000</b>	<b>88.7919</b>	<b>88.7919</b>	<b>2.1500e-003</b>	<b>0.0000</b>	<b>88.8456</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8000e-003	7.7900e-003	0.1109	1.8000e-004		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	15.4472	15.4472	1.2000e-003	0.0000	15.4771
<b>Total</b>	<b>1.8000e-003</b>	<b>7.7900e-003</b>	<b>0.1109</b>	<b>1.8000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>15.4472</b>	<b>15.4472</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>15.4771</b>

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**3.6 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	0.0304	0.3150	9.8000e-004	0.1014	6.8000e-004	0.1020	0.0270	6.3000e-004	0.0276	0.0000	88.7919	88.7919	2.1500e-003	0.0000	88.8456
<b>Total</b>	<b>0.0425</b>	<b>0.0304</b>	<b>0.3150</b>	<b>9.8000e-004</b>	<b>0.1014</b>	<b>6.8000e-004</b>	<b>0.1020</b>	<b>0.0270</b>	<b>6.3000e-004</b>	<b>0.0276</b>	<b>0.0000</b>	<b>88.7919</b>	<b>88.7919</b>	<b>2.1500e-003</b>	<b>0.0000</b>	<b>88.8456</b>

**3.6 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-003	0.0244	0.0291	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.0852	4.0852	2.8000e-004	0.0000	4.0922
<b>Total</b>	<b>3.5000e-003</b>	<b>0.0244</b>	<b>0.0291</b>	<b>5.0000e-005</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>4.0922</b>

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**3.6 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	0.0104	7.1800e-003	0.0761	2.5000e-004	0.0268	1.8000e-004	0.0270	7.1300e-003	1.6000e-004	7.2900e-003	0.0000	22.6582	22.6582	5.1000e-004	0.0000	22.6709
<b>Total</b>	<b>0.0104</b>	<b>7.1800e-003</b>	<b>0.0761</b>	<b>2.5000e-004</b>	<b>0.0268</b>	<b>1.8000e-004</b>	<b>0.0270</b>	<b>7.1300e-003</b>	<b>1.6000e-004</b>	<b>7.2900e-003</b>	<b>0.0000</b>	<b>22.6582</b>	<b>22.6582</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>22.6709</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	2.0600e-003	0.0293	5.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	4.0852	4.0852	2.8000e-004	0.0000	4.0922
<b>Total</b>	<b>4.8000e-004</b>	<b>2.0600e-003</b>	<b>0.0293</b>	<b>5.0000e-005</b>		<b>6.0000e-005</b>	<b>6.0000e-005</b>		<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>4.0922</b>

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**3.6 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	0.0104	7.1800e-003	0.0761	2.5000e-004	0.0268	1.8000e-004	0.0270	7.1300e-003	1.6000e-004	7.2900e-003	0.0000	22.6582	22.6582	5.1000e-004	0.0000	22.6709
<b>Total</b>	<b>0.0104</b>	<b>7.1800e-003</b>	<b>0.0761</b>	<b>2.5000e-004</b>	<b>0.0268</b>	<b>1.8000e-004</b>	<b>0.0270</b>	<b>7.1300e-003</b>	<b>1.6000e-004</b>	<b>7.2900e-003</b>	<b>0.0000</b>	<b>22.6582</b>	<b>22.6582</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>22.6709</b>

**3.7 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3290	0.0000	0.3290	0.1512	0.0000	0.1512	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1936	2.1836	1.3902	2.7000e-003		0.0946	0.0946		0.0870	0.0870	0.0000	237.0067	237.0067	0.0767	0.0000	238.9230
<b>Total</b>	<b>0.1936</b>	<b>2.1836</b>	<b>1.3902</b>	<b>2.7000e-003</b>	<b>0.3290</b>	<b>0.0946</b>	<b>0.4235</b>	<b>0.1512</b>	<b>0.0870</b>	<b>0.2382</b>	<b>0.0000</b>	<b>237.0067</b>	<b>237.0067</b>	<b>0.0767</b>	<b>0.0000</b>	<b>238.9230</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	2.8800e-003	2.0600e-003	0.0214	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	6.0228	6.0228	1.5000e-004	0.0000	6.0265
<b>Total</b>	<b>2.8800e-003</b>	<b>2.0600e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8700e-003</b>	<b>5.0000e-005</b>	<b>6.9200e-003</b>	<b>1.8300e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.0228</b>	<b>6.0228</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>6.0265</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					0.3290	0.0000	0.3290	0.1512	0.0000	0.1512	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.1436	1.4355	2.7000e-003		4.4200e-003	4.4200e-003		4.4200e-003	4.4200e-003	0.0000	237.0064	237.0064	0.0767	0.0000	238.9227
<b>Total</b>	<b>0.0331</b>	<b>0.1436</b>	<b>1.4355</b>	<b>2.7000e-003</b>	<b>0.3290</b>	<b>4.4200e-003</b>	<b>0.3334</b>	<b>0.1512</b>	<b>4.4200e-003</b>	<b>0.1557</b>	<b>0.0000</b>	<b>237.0064</b>	<b>237.0064</b>	<b>0.0767</b>	<b>0.0000</b>	<b>238.9227</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	2.8800e-003	2.0600e-003	0.0214	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	6.0228	6.0228	1.5000e-004	0.0000	6.0265
<b>Total</b>	<b>2.8800e-003</b>	<b>2.0600e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8700e-003</b>	<b>5.0000e-005</b>	<b>6.9200e-003</b>	<b>1.8300e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.0228</b>	<b>6.0228</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>6.0265</b>

**3.7 Grading 2 - 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					0.1784	0.0000	0.1784	0.0685	0.0000	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0775	0.8584	0.5713	1.1500e-003		0.0367	0.0367		0.0338	0.0338	0.0000	100.8157	100.8157	0.0326	0.0000	101.6309
<b>Total</b>	<b>0.0775</b>	<b>0.8584</b>	<b>0.5713</b>	<b>1.1500e-003</b>	<b>0.1784</b>	<b>0.0367</b>	<b>0.2151</b>	<b>0.0685</b>	<b>0.0338</b>	<b>0.1023</b>	<b>0.0000</b>	<b>100.8157</b>	<b>100.8157</b>	<b>0.0326</b>	<b>0.0000</b>	<b>101.6309</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	1.1400e-003	7.8000e-004	8.3000e-003	3.0000e-005	2.9200e-003	2.0000e-005	2.9400e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4716	2.4716	6.0000e-005	0.0000	2.4730
<b>Total</b>	<b>1.1400e-003</b>	<b>7.8000e-004</b>	<b>8.3000e-003</b>	<b>3.0000e-005</b>	<b>2.9200e-003</b>	<b>2.0000e-005</b>	<b>2.9400e-003</b>	<b>7.8000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4716</b>	<b>2.4716</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.4730</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					0.1784	0.0000	0.1784	0.0685	0.0000	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.0611	0.6105	1.1500e-003		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	100.8156	100.8156	0.0326	0.0000	101.6307
<b>Total</b>	<b>0.0141</b>	<b>0.0611</b>	<b>0.6105</b>	<b>1.1500e-003</b>	<b>0.1784</b>	<b>1.8800e-003</b>	<b>0.1803</b>	<b>0.0685</b>	<b>1.8800e-003</b>	<b>0.0704</b>	<b>0.0000</b>	<b>100.8156</b>	<b>100.8156</b>	<b>0.0326</b>	<b>0.0000</b>	<b>101.6307</b>

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**3.7 Grading 2 - 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	0.0000	0.0000	0.0000	0.0000	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	1.1400e-003	7.8000e-004	8.3000e-003	3.0000e-005	2.9200e-003	2.0000e-005	2.9400e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4716	2.4716	6.0000e-005	0.0000	2.4730
<b>Total</b>	<b>1.1400e-003</b>	<b>7.8000e-004</b>	<b>8.3000e-003</b>	<b>3.0000e-005</b>	<b>2.9200e-003</b>	<b>2.0000e-005</b>	<b>2.9400e-003</b>	<b>7.8000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4716</b>	<b>2.4716</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.4730</b>

**3.8 Paving 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0276	0.2842	0.3224	5.0000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	44.0517	44.0517	0.0143	0.0000	44.4078
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0499</b>	<b>0.2842</b>	<b>0.3224</b>	<b>5.0000e-004</b>		<b>0.0149</b>	<b>0.0149</b>		<b>0.0137</b>	<b>0.0137</b>	<b>0.0000</b>	<b>44.0517</b>	<b>44.0517</b>	<b>0.0143</b>	<b>0.0000</b>	<b>44.4078</b>



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**3.8 Paving 2 - 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	0.0000	0.0000	0.0000	0.0000	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	1.0100e-003	7.0000e-004	7.4000e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6200e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2044	2.2044	5.0000e-005	0.0000	2.2056
<b>Total</b>	<b>1.0100e-003</b>	<b>7.0000e-004</b>	<b>7.4000e-003</b>	<b>2.0000e-005</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>	<b>2.6200e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.2044</b>	<b>2.2044</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.2056</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	6.1700e-003	0.0267	0.3805	5.0000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.0516	44.0516	0.0143	0.0000	44.4078
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0285</b>	<b>0.0267</b>	<b>0.3805</b>	<b>5.0000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>44.0516</b>	<b>44.0516</b>	<b>0.0143</b>	<b>0.0000</b>	<b>44.4078</b>

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**3.8 Paving 2 - 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	0.0000	0.0000	0.0000	0.0000	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	1.0100e-003	7.0000e-004	7.4000e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6200e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2044	2.2044	5.0000e-005	0.0000	2.2056
<b>Total</b>	<b>1.0100e-003</b>	<b>7.0000e-004</b>	<b>7.4000e-003</b>	<b>2.0000e-005</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>	<b>2.6200e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.2044</b>	<b>2.2044</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.2056</b>

**3.9 Construction 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4736	208.4736	0.0503	0.0000	209.7309
<b>Total</b>	<b>0.1711</b>	<b>1.5689</b>	<b>1.4918</b>	<b>2.4200e-003</b>		<b>0.0863</b>	<b>0.0863</b>		<b>0.0811</b>	<b>0.0811</b>	<b>0.0000</b>	<b>208.4736</b>	<b>208.4736</b>	<b>0.0503</b>	<b>0.0000</b>	<b>209.7309</b>

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**3.9 Construction 2 - 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	0.1183	3.8918	0.9714	0.0101	0.2443	8.4600e-003	0.2528	0.0707	8.0900e-003	0.0788	0.0000	966.3156	966.3156	0.0475	0.0000	967.5032
Worker	0.2933	0.2024	2.1437	7.0600e-003	0.7553	4.9400e-003	0.7602	0.2009	4.5500e-003	0.2055	0.0000	638.4649	638.4649	0.0143	0.0000	638.8228
<b>Total</b>	<b>0.4116</b>	<b>4.0942</b>	<b>3.1151</b>	<b>0.0171</b>	<b>0.9996</b>	<b>0.0134</b>	<b>1.0130</b>	<b>0.2716</b>	<b>0.0126</b>	<b>0.2842</b>	<b>0.0000</b>	<b>1,604.7804</b>	<b>1,604.7804</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,606.3260</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	0.0295	0.2011	1.5714	2.4200e-003		3.6700e-003	3.6700e-003		3.6700e-003	3.6700e-003	0.0000	208.4733	208.4733	0.0503	0.0000	209.7307
<b>Total</b>	<b>0.0295</b>	<b>0.2011</b>	<b>1.5714</b>	<b>2.4200e-003</b>		<b>3.6700e-003</b>	<b>3.6700e-003</b>		<b>3.6700e-003</b>	<b>3.6700e-003</b>	<b>0.0000</b>	<b>208.4733</b>	<b>208.4733</b>	<b>0.0503</b>	<b>0.0000</b>	<b>209.7307</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	0.1183	3.8918	0.9714	0.0101	0.2443	8.4600e-003	0.2528	0.0707	8.0900e-003	0.0788	0.0000	966.3156	966.3156	0.0475	0.0000	967.5032
Worker	0.2933	0.2024	2.1437	7.0600e-003	0.7553	4.9400e-003	0.7602	0.2009	4.5500e-003	0.2055	0.0000	638.4649	638.4649	0.0143	0.0000	638.8228
<b>Total</b>	<b>0.4116</b>	<b>4.0942</b>	<b>3.1151</b>	<b>0.0171</b>	<b>0.9996</b>	<b>0.0134</b>	<b>1.0130</b>	<b>0.2716</b>	<b>0.0126</b>	<b>0.2842</b>	<b>0.0000</b>	<b>1,604.7804</b>	<b>1,604.7804</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,606.3260</b>

**3.9 Construction 2 - 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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
<b>Total</b>	<b>0.2218</b>	<b>2.0300</b>	<b>2.1272</b>	<b>3.5000e-003</b>		<b>0.1052</b>	<b>0.1052</b>		<b>0.0990</b>	<b>0.0990</b>	<b>0.0000</b>	<b>301.2428</b>	<b>301.2428</b>	<b>0.0722</b>	<b>0.0000</b>	<b>303.0471</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	0.1594	5.3239	1.3193	0.0144	0.3529	0.0106	0.3636	0.1021	0.0101	0.1122	0.0000	1,382.1028	1,382.1028	0.0656	0.0000	1,383.7422
Worker	0.3949	0.2621	2.8457	9.8200e-003	1.0909	6.9700e-003	1.0979	0.2902	6.4200e-003	0.2966	0.0000	888.4168	888.4168	0.0185	0.0000	888.8804
<b>Total</b>	<b>0.5543</b>	<b>5.5860</b>	<b>4.1650</b>	<b>0.0242</b>	<b>1.4439</b>	<b>0.0176</b>	<b>1.4614</b>	<b>0.3923</b>	<b>0.0166</b>	<b>0.4089</b>	<b>0.0000</b>	<b>2,270.5196</b>	<b>2,270.5196</b>	<b>0.0841</b>	<b>0.0000</b>	<b>2,272.6226</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	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
<b>Total</b>	<b>0.0426</b>	<b>0.2905</b>	<b>2.2698</b>	<b>3.5000e-003</b>		<b>5.3000e-003</b>	<b>5.3000e-003</b>		<b>5.3000e-003</b>	<b>5.3000e-003</b>	<b>0.0000</b>	<b>301.2425</b>	<b>301.2425</b>	<b>0.0722</b>	<b>0.0000</b>	<b>303.0467</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	0.1594	5.3239	1.3193	0.0144	0.3529	0.0106	0.3636	0.1021	0.0101	0.1122	0.0000	1,382.1028	1,382.1028	0.0656	0.0000	1,383.7422
Worker	0.3949	0.2621	2.8457	9.8200e-003	1.0909	6.9700e-003	1.0979	0.2902	6.4200e-003	0.2966	0.0000	888.4168	888.4168	0.0185	0.0000	888.8804
<b>Total</b>	<b>0.5543</b>	<b>5.5860</b>	<b>4.1650</b>	<b>0.0242</b>	<b>1.4439</b>	<b>0.0176</b>	<b>1.4614</b>	<b>0.3923</b>	<b>0.0166</b>	<b>0.4089</b>	<b>0.0000</b>	<b>2,270.5196</b>	<b>2,270.5196</b>	<b>0.0841</b>	<b>0.0000</b>	<b>2,272.6226</b>

**3.9 Construction 2 - 2023**

**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	0.1353	1.2371	1.3970	2.3200e-003		0.0602	0.0602		0.0566	0.0566	0.0000	199.3521	199.3521	0.0474	0.0000	200.5377
<b>Total</b>	<b>0.1353</b>	<b>1.2371</b>	<b>1.3970</b>	<b>2.3200e-003</b>		<b>0.0602</b>	<b>0.0602</b>		<b>0.0566</b>	<b>0.0566</b>	<b>0.0000</b>	<b>199.3521</b>	<b>199.3521</b>	<b>0.0474</b>	<b>0.0000</b>	<b>200.5377</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	0.0791	2.7155	0.7813	9.2300e-003	0.2335	3.1200e-003	0.2366	0.0675	2.9900e-003	0.0705	0.0000	888.6899	888.6899	0.0370	0.0000	889.6143
Worker	0.2443	0.1559	1.7316	6.2500e-003	0.7217	4.5200e-003	0.7262	0.1920	4.1600e-003	0.1962	0.0000	565.2137	565.2137	0.0110	0.0000	565.4886
<b>Total</b>	<b>0.3234</b>	<b>2.8714</b>	<b>2.5129</b>	<b>0.0155</b>	<b>0.9552</b>	<b>7.6400e-003</b>	<b>0.9628</b>	<b>0.2595</b>	<b>7.1500e-003</b>	<b>0.2667</b>	<b>0.0000</b>	<b>1,453.9035</b>	<b>1,453.9035</b>	<b>0.0480</b>	<b>0.0000</b>	<b>1,455.1028</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	0.0282	0.1922	1.5016	2.3200e-003		3.5100e-003	3.5100e-003		3.5100e-003	3.5100e-003	0.0000	199.3518	199.3518	0.0474	0.0000	200.5374
<b>Total</b>	<b>0.0282</b>	<b>0.1922</b>	<b>1.5016</b>	<b>2.3200e-003</b>		<b>3.5100e-003</b>	<b>3.5100e-003</b>		<b>3.5100e-003</b>	<b>3.5100e-003</b>	<b>0.0000</b>	<b>199.3518</b>	<b>199.3518</b>	<b>0.0474</b>	<b>0.0000</b>	<b>200.5374</b>

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**3.9 Construction 2 - 2023**

**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	0.0791	2.7155	0.7813	9.2300e-003	0.2335	3.1200e-003	0.2366	0.0675	2.9900e-003	0.0705	0.0000	888.6899	888.6899	0.0370	0.0000	889.6143
Worker	0.2443	0.1559	1.7316	6.2500e-003	0.7217	4.5200e-003	0.7262	0.1920	4.1600e-003	0.1962	0.0000	565.2137	565.2137	0.0110	0.0000	565.4886
<b>Total</b>	<b>0.3234</b>	<b>2.8714</b>	<b>2.5129</b>	<b>0.0155</b>	<b>0.9552</b>	<b>7.6400e-003</b>	<b>0.9628</b>	<b>0.2595</b>	<b>7.1500e-003</b>	<b>0.2667</b>	<b>0.0000</b>	<b>1,453.9035</b>	<b>1,453.9035</b>	<b>0.0480</b>	<b>0.0000</b>	<b>1,455.1028</b>

**3.10 Architectural Coating 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1298	0.1545	2.5000e-004		8.0000e-003	8.0000e-003		8.0000e-003	8.0000e-003	0.0000	21.7027	21.7027	1.4900e-003	0.0000	21.7399
<b>Total</b>	<b>0.0186</b>	<b>0.1298</b>	<b>0.1545</b>	<b>2.5000e-004</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>	<b>0.0000</b>	<b>21.7027</b>	<b>21.7027</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>21.7399</b>



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**3.10 Architectural Coating 2 - 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	0.0000	0.0000	0.0000	0.0000	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	0.0553	0.0382	0.4042	1.3300e-003	0.1424	9.3000e-004	0.1433	0.0379	8.6000e-004	0.0387	0.0000	120.3718	120.3718	2.7000e-003	0.0000	120.4393
<b>Total</b>	<b>0.0553</b>	<b>0.0382</b>	<b>0.4042</b>	<b>1.3300e-003</b>	<b>0.1424</b>	<b>9.3000e-004</b>	<b>0.1433</b>	<b>0.0379</b>	<b>8.6000e-004</b>	<b>0.0387</b>	<b>0.0000</b>	<b>120.3718</b>	<b>120.3718</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>120.4393</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5300e-003	0.0109	0.1558	2.5000e-004		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	21.7026	21.7026	1.4900e-003	0.0000	21.7399
<b>Total</b>	<b>2.5300e-003</b>	<b>0.0109</b>	<b>0.1558</b>	<b>2.5000e-004</b>		<b>3.4000e-004</b>	<b>3.4000e-004</b>		<b>3.4000e-004</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>21.7026</b>	<b>21.7026</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>21.7399</b>

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**3.10 Architectural Coating 2 - 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	0.0000	0.0000	0.0000	0.0000	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	0.0553	0.0382	0.4042	1.3300e-003	0.1424	9.3000e-004	0.1433	0.0379	8.6000e-004	0.0387	0.0000	120.3718	120.3718	2.7000e-003	0.0000	120.4393
<b>Total</b>	<b>0.0553</b>	<b>0.0382</b>	<b>0.4042</b>	<b>1.3300e-003</b>	<b>0.1424</b>	<b>9.3000e-004</b>	<b>0.1433</b>	<b>0.0379</b>	<b>8.6000e-004</b>	<b>0.0387</b>	<b>0.0000</b>	<b>120.3718</b>	<b>120.3718</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>120.4393</b>

**3.10 Architectural Coating 2 - 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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
<b>Total</b>	<b>0.0266</b>	<b>0.1831</b>	<b>0.2358</b>	<b>3.9000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>33.2463</b>

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**3.10 Architectural Coating 2 - 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	0.0788	0.0523	0.5681	1.9600e-003	0.2178	1.3900e-003	0.2192	0.0579	1.2800e-003	0.0592	0.0000	177.3488	177.3488	3.7000e-003	0.0000	177.4413
<b>Total</b>	<b>0.0788</b>	<b>0.0523</b>	<b>0.5681</b>	<b>1.9600e-003</b>	<b>0.2178</b>	<b>1.3900e-003</b>	<b>0.2192</b>	<b>0.0579</b>	<b>1.2800e-003</b>	<b>0.0592</b>	<b>0.0000</b>	<b>177.3488</b>	<b>177.3488</b>	<b>3.7000e-003</b>	<b>0.0000</b>	<b>177.4413</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
<b>Total</b>	<b>3.8600e-003</b>	<b>0.0167</b>	<b>0.2382</b>	<b>3.9000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>33.2463</b>

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**3.10 Architectural Coating 2 - 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	0.0788	0.0523	0.5681	1.9600e-003	0.2178	1.3900e-003	0.2192	0.0579	1.2800e-003	0.0592	0.0000	177.3488	177.3488	3.7000e-003	0.0000	177.4413
<b>Total</b>	<b>0.0788</b>	<b>0.0523</b>	<b>0.5681</b>	<b>1.9600e-003</b>	<b>0.2178</b>	<b>1.3900e-003</b>	<b>0.2192</b>	<b>0.0579</b>	<b>1.2800e-003</b>	<b>0.0592</b>	<b>0.0000</b>	<b>177.3488</b>	<b>177.3488</b>	<b>3.7000e-003</b>	<b>0.0000</b>	<b>177.4413</b>

**3.10 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.1186	0.1648	2.7000e-004		6.4400e-003	6.4400e-003		6.4400e-003	6.4400e-003	0.0000	23.2346	23.2346	1.3900e-003	0.0000	23.2694
<b>Total</b>	<b>0.0174</b>	<b>0.1186</b>	<b>0.1648</b>	<b>2.7000e-004</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>	<b>0.0000</b>	<b>23.2346</b>	<b>23.2346</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>23.2694</b>

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**3.10 Architectural Coating 2 - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0329	0.3658	1.3200e-003	0.1524	9.5000e-004	0.1534	0.0406	8.8000e-004	0.0414	0.0000	119.3897	119.3897	2.3200e-003	0.0000	119.4478
<b>Total</b>	<b>0.0516</b>	<b>0.0329</b>	<b>0.3658</b>	<b>1.3200e-003</b>	<b>0.1524</b>	<b>9.5000e-004</b>	<b>0.1534</b>	<b>0.0406</b>	<b>8.8000e-004</b>	<b>0.0414</b>	<b>0.0000</b>	<b>119.3897</b>	<b>119.3897</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>119.4478</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0117	0.1668	2.7000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	23.2346	23.2346	1.3900e-003	0.0000	23.2693
<b>Total</b>	<b>2.7000e-003</b>	<b>0.0117</b>	<b>0.1668</b>	<b>2.7000e-004</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>23.2346</b>	<b>23.2346</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>23.2693</b>

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**3.10 Architectural Coating 2 - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0329	0.3658	1.3200e-003	0.1524	9.5000e-004	0.1534	0.0406	8.8000e-004	0.0414	0.0000	119.3897	119.3897	2.3200e-003	0.0000	119.4478
<b>Total</b>	<b>0.0516</b>	<b>0.0329</b>	<b>0.3658</b>	<b>1.3200e-003</b>	<b>0.1524</b>	<b>9.5000e-004</b>	<b>0.1534</b>	<b>0.0406</b>	<b>8.8000e-004</b>	<b>0.0414</b>	<b>0.0000</b>	<b>119.3897</b>	<b>119.3897</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>119.4478</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Improve Pedestrian Network

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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	0.9467	4.3511	11.0463	0.0432	4.0125	0.0351	4.0476	1.0768	0.0327	1.1095	0.0000	3,973.7260	3,973.7260	0.1331	0.0000	3,977.0525
Unmitigated	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	7,794,894
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	2,988,512
Total	4,292.92	4,292.92	4,292.92	11,582,607	10,783,407

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	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	3,353.0811	3,353.0811	0.3955	0.0818	3,387.3511
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,729.8842	3,729.8842	0.4399	0.0910	3,768.0052
NaturalGas Mitigated	0.1156	1.0506	0.8825	6.3000e-003		0.0798	0.0798		0.0798	0.0798	0.0000	1,143.6549	1,143.6549	0.0219	0.0210	1,150.4511
NaturalGas Unmitigated	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	1,631.0342	1,631.0342	0.0313	0.0299	1,640.7266



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**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					
Industrial Park	3.00439e+007	0.1620	1.4727	1.2371	8.8400e-003		0.1119	0.1119		0.1119	0.1119	0.0000	1,603.2583	1,603.2583	0.0307	0.0294	1,612.7857
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
Unrefrigerated Warehouse-No Rail	520500	2.8100e-003	0.0255	0.0214	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7759	27.7759	5.3000e-004	5.1000e-004	27.9409
<b>Total</b>		<b>0.1648</b>	<b>1.4983</b>	<b>1.2585</b>	<b>8.9900e-003</b>		<b>0.1139</b>	<b>0.1139</b>		<b>0.1139</b>	<b>0.1139</b>	<b>0.0000</b>	<b>1,631.0342</b>	<b>1,631.0342</b>	<b>0.0313</b>	<b>0.0299</b>	<b>1,640.7266</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Industrial Park	2.10638e+007	0.1136	1.0325	0.8673	6.2000e-003		0.0785	0.0785		0.0785	0.0785	0.0000	1,124.0437	1,124.0437	0.0215	0.0206	1,130.7234
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
Unrefrigerated Warehouse-No Rail	367500	1.9800e-003	0.0180	0.0151	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6112	19.6112	3.8000e-004	3.6000e-004	19.7277
<b>Total</b>		<b>0.1156</b>	<b>1.0506</b>	<b>0.8825</b>	<b>6.3100e-003</b>		<b>0.0798</b>	<b>0.0798</b>		<b>0.0798</b>	<b>0.0798</b>	<b>0.0000</b>	<b>1,143.6549</b>	<b>1,143.6549</b>	<b>0.0219</b>	<b>0.0210</b>	<b>1,150.4511</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27235e+007	3,649.6255	0.4305	0.0891	3,686.9262
Parking Lot	190120	21.2040	2.5000e-003	5.2000e-004	21.4207
Unrefrigerated Warehouse-No Rail	529500	59.0548	6.9700e-003	1.4400e-003	59.6583
<b>Total</b>		<b>3,729.8842</b>	<b>0.4399</b>	<b>0.0910</b>	<b>3,768.0052</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	2.93594e+007	3,274.4284	0.3862	0.0799	3,307.8945
Parking Lot	190120	21.2040	2.5000e-003	5.2000e-004	21.4207
Unrefrigerated Warehouse-No Rail	515100	57.4487	6.7800e-003	1.4000e-003	58.0359
<b>Total</b>		<b>3,353.0811</b>	<b>0.3955</b>	<b>0.0818</b>	<b>3,387.3510</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	7.7916	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Unmitigated	8.8381	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**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	1.0465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8300e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
<b>Total</b>	<b>8.8381</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>0.0000</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0597</b>	<b>0.0597</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0636</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8300e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
<b>Total</b>	<b>7.7916</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>0.0000</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0597</b>	<b>0.0597</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0636</b>

**7.0 Water Detail**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	422.7118	14.9925	0.3600	904.8020
Unmitigated	422.7118	14.9925	0.3600	904.8020

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	424.413 / 0	390.7737	13.8597	0.3328	836.4394
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	34.6875 / 0	31.9381	1.1328	0.0272	68.3626
<b>Total</b>		<b>422.7118</b>	<b>14.9925</b>	<b>0.3600</b>	<b>904.8020</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	424.413 / 0	390.7737	13.8597	0.3328	836.4394
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	34.6875 / 0	31.9381	1.1328	0.0272	68.3626
<b>Total</b>		<b>422.7118</b>	<b>14.9925</b>	<b>0.3600</b>	<b>904.8020</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	490.5825	28.9926	0.0000	1,215.3973
Unmitigated	490.5825	28.9926	0.0000	1,215.3973

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	2275.77	461.9607	27.3011	0.0000	1,144.4882
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	141	28.6217	1.6915	0.0000	70.9091
<b>Total</b>		<b>490.5825</b>	<b>28.9926</b>	<b>0.0000</b>	<b>1,215.3973</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	2275.77	461.9607	27.3011	0.0000	1,144.488 2
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	141	28.6217	1.6915	0.0000	70.9091
<b>Total</b>		<b>490.5825</b>	<b>28.9926</b>	<b>0.0000</b>	<b>1,215.397 3</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

## 11.0 Vegetation

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	245.88	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Project Characteristics - PG&E calculator

Land Use - questionnaire and site plan

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Architectural Coating - Mitigation

Vehicle Trips - TIA trip rate

Energy Use -

Construction Off-road Equipment Mitigation - Mitigation

Mobile Land Use Mitigation - applicant provided

Area Mitigation - Mitigation

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialImported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	245.88
tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 2.0 Emissions Summary

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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					
2020	12.8793	120.9708	96.6111	0.3125	20.5348	3.7020	24.2368	7.0531	3.4459	10.4990	0.0000	31,537.93 83	31,537.93 83	3.4377	0.0000	31,623.88 1
2021	11.7556	110.5736	91.1446	0.3076	20.5349	3.1976	23.7326	7.0532	2.9721	10.0253	0.0000	31,052.69 52	31,052.69 52	3.3687	0.0000	31,136.91 22
2022	6.9210	59.7186	56.5002	0.2391	13.2681	1.0354	14.3035	3.5827	0.9789	4.5617	0.0000	24,401.45 10	24,401.45 10	1.3697	0.0000	24,435.69 21
2023	6.2212	48.9536	53.1910	0.2321	13.2682	0.8692	14.1374	3.5827	0.8213	4.4041	0.0000	23,696.47 27	23,696.47 27	1.2654	0.0000	23,728.10 70
<b>Maximum</b>	<b>12.8793</b>	<b>120.9708</b>	<b>96.6111</b>	<b>0.3125</b>	<b>20.5349</b>	<b>3.7020</b>	<b>24.2368</b>	<b>7.0532</b>	<b>3.4459</b>	<b>10.4990</b>	<b>0.0000</b>	<b>31,537.93 83</b>	<b>31,537.93 83</b>	<b>3.4377</b>	<b>0.0000</b>	<b>31,623.88 11</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.1615	27,200.1615	0.8580		27,221.6122
<b>Total</b>	<b>55.4646</b>	<b>32.2225</b>	<b>74.6411</b>	<b>0.3179</b>	<b>24.6028</b>	<b>0.8303</b>	<b>25.4330</b>	<b>6.5813</b>	<b>0.8165</b>	<b>7.3978</b>		<b>37,052.4408</b>	<b>37,052.4408</b>	<b>1.0488</b>	<b>0.1806</b>	<b>37,132.4821</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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.6332	5.7565	4.8354	0.0345		0.4375	0.4375		0.4375	0.4375		6,907.7467	6,907.7467	0.1324	0.1266	6,948.7959
Mobile	5.9693	23.1883	63.5863	0.2512	22.9052	0.1925	23.0977	6.1272	0.1796	6.3068		25,445.5549	25,445.5549	0.8119		25,465.8510
<b>Total</b>	<b>49.3119</b>	<b>28.9479</b>	<b>68.7626</b>	<b>0.2858</b>	<b>22.9052</b>	<b>0.6312</b>	<b>23.5364</b>	<b>6.1272</b>	<b>0.6183</b>	<b>6.7455</b>		<b>32,354.0333</b>	<b>32,354.0333</b>	<b>0.9462</b>	<b>0.1266</b>	<b>32,415.4264</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	11.09	10.16	7.88	10.09	6.90	23.97	7.46	6.90	24.27	8.82	0.00	12.68	12.68	9.78	29.88	12.70

### 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	3/2/2020	5/4/2020	5	46	
2	Grading	Grading	5/5/2020	6/16/2020	5	31	
3	Paving	Paving	6/17/2020	7/1/2020	5	11	
4	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
5	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
6	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
7	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
8	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
9	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 40.08

Acres of Paving: 17.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading 2	Excavators	2	8.00	158	0.38
Grading 2	Graders	1	8.00	187	0.41
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Construction 2	Cranes	1	7.00	231	0.29
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45
Architectural Coating 2	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	6	15.00	0.00	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3085	0.0000	0.3085	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3085</b>	<b>1.6587</b>	<b>1.9672</b>	<b>0.0467</b>	<b>1.5419</b>	<b>1.5886</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0118	0.4110	0.0817	1.1400e-003	0.0251	1.3400e-003	0.0264	6.8700e-003	1.2900e-003	8.1500e-003		122.0689	122.0689	6.1100e-003		122.2216
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0640</b>	<b>0.4426</b>	<b>0.4841</b>	<b>2.3800e-003</b>	<b>0.1483</b>	<b>2.1400e-003</b>	<b>0.1504</b>	<b>0.0396</b>	<b>2.0300e-003</b>	<b>0.0416</b>		<b>245.1854</b>	<b>245.1854</b>	<b>9.0800e-003</b>		<b>245.4123</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Demolition - 2020**

**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					0.3085	0.0000	0.3085	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>0.4623</b>	<b>2.0032</b>	<b>23.2798</b>	<b>0.0388</b>	<b>0.3085</b>	<b>0.0616</b>	<b>0.3702</b>	<b>0.0467</b>	<b>0.0616</b>	<b>0.1084</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0118	0.4110	0.0817	1.1400e-003	0.0251	1.3400e-003	0.0264	6.8700e-003	1.2900e-003	8.1500e-003		122.0689	122.0689	6.1100e-003		122.2216
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0640</b>	<b>0.4426</b>	<b>0.4841</b>	<b>2.3800e-003</b>	<b>0.1483</b>	<b>2.1400e-003</b>	<b>0.1504</b>	<b>0.0396</b>	<b>2.0300e-003</b>	<b>0.0416</b>		<b>245.1854</b>	<b>245.1854</b>	<b>9.0800e-003</b>		<b>245.4123</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>		<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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	0.8318	28.8755	5.7388	0.0802	1.7611	0.0944	1.8555	0.4826	0.0903	0.5729		8,576.447 0	8,576.447 0	0.4290		8,587.173 0
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.9013</b>	<b>28.9176</b>	<b>6.2754</b>	<b>0.0819</b>	<b>1.9254</b>	<b>0.0955</b>	<b>2.0208</b>	<b>0.5262</b>	<b>0.0913</b>	<b>0.6175</b>		<b>8,740.602 3</b>	<b>8,740.602 3</b>	<b>0.4330</b>		<b>8,751.427 2</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Grading - 2020**

**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					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.4844</b>	<b>0.1015</b>	<b>7.5860</b>	<b>3.4721</b>	<b>0.1015</b>	<b>3.5736</b>	<b>0.0000</b>	<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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	0.8318	28.8755	5.7388	0.0802	1.7611	0.0944	1.8555	0.4826	0.0903	0.5729		8,576.447 0	8,576.447 0	0.4290		8,587.173 0
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.9013</b>	<b>28.9176</b>	<b>6.2754</b>	<b>0.0819</b>	<b>1.9254</b>	<b>0.0955</b>	<b>2.0208</b>	<b>0.5262</b>	<b>0.0913</b>	<b>0.6175</b>		<b>8,740.602 3</b>	<b>8,740.602 3</b>	<b>0.4330</b>		<b>8,751.427 2</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0521</b>	<b>0.0316</b>	<b>0.4025</b>	<b>1.2400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>123.1165</b>	<b>123.1165</b>	<b>2.9700e-003</b>		<b>123.1907</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Paving - 2020**

**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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>4.3319</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0521</b>	<b>0.0316</b>	<b>0.4025</b>	<b>1.2400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>123.1165</b>	<b>123.1165</b>	<b>2.9700e-003</b>		<b>123.1907</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</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
Vendor	1.5695	47.1805	11.2543	0.1140	2.8023	0.2313	3.0336	0.8067	0.2213	1.0279		12,076.7133	12,076.7133	0.5947		12,091.5812
Worker	3.6913	2.2348	28.4939	0.0875	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,716.6470	8,716.6470	0.2100		8,721.8981
<b>Total</b>	<b>5.2608</b>	<b>49.4152</b>	<b>39.7482</b>	<b>0.2015</b>	<b>11.5264</b>	<b>0.2878</b>	<b>11.8142</b>	<b>3.1207</b>	<b>0.2733</b>	<b>3.3940</b>		<b>20,793.3603</b>	<b>20,793.3603</b>	<b>0.8048</b>		<b>20,813.4793</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.5 Building Construction - 2020**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.5695	47.1805	11.2543	0.1140	2.8023	0.2313	3.0336	0.8067	0.2213	1.0279		12,076.71 33	12,076.71 33	0.5947		12,091.58 12
Worker	3.6913	2.2348	28.4939	0.0875	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,716.647 0	8,716.647 0	0.2100		8,721.898 1
<b>Total</b>	<b>5.2608</b>	<b>49.4152</b>	<b>39.7482</b>	<b>0.2015</b>	<b>11.5264</b>	<b>0.2878</b>	<b>11.8142</b>	<b>3.1207</b>	<b>0.2733</b>	<b>3.3940</b>		<b>20,793.36 03</b>	<b>20,793.36 03</b>	<b>0.8048</b>		<b>20,813.47 93</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.5 Building Construction - 2021**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7369	0.4461	5.6881	0.0175	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,740.0463	1,740.0463	0.0419		1,741.0945
<b>Total</b>	<b>0.7369</b>	<b>0.4461</b>	<b>5.6881</b>	<b>0.0175</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,740.0463</b>	<b>1,740.0463</b>	<b>0.0419</b>		<b>1,741.0945</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Architectural Coating - 2020**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7369	0.4461	5.6881	0.0175	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,740.0463	1,740.0463	0.0419		1,741.0945
<b>Total</b>	<b>0.7369</b>	<b>0.4461</b>	<b>5.6881</b>	<b>0.0175</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,740.0463</b>	<b>1,740.0463</b>	<b>0.0419</b>		<b>1,741.0945</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Architectural Coating - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>		<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0695</b>	<b>0.0421</b>	<b>0.5366</b>	<b>1.6500e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>164.1553</b>	<b>164.1553</b>	<b>3.9600e-003</b>		<b>164.2542</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Grading 2 - 2020**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.1026</b>	<b>0.1015</b>	<b>7.2041</b>	<b>3.4269</b>	<b>0.1015</b>	<b>3.5284</b>	<b>0.0000</b>	<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0695</b>	<b>0.0421</b>	<b>0.5366</b>	<b>1.6500e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>164.1553</b>	<b>164.1553</b>	<b>3.9600e-003</b>		<b>164.2542</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Grading 2 - 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	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>		<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
<b>Total</b>	<b>0.0643</b>	<b>0.0376</b>	<b>0.4913</b>	<b>1.5900e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>158.3919</b>	<b>158.3919</b>	<b>3.5400e-003</b>		<b>158.4804</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Grading 2 - 2021**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.1026</b>	<b>0.1015</b>	<b>7.2041</b>	<b>3.4269</b>	<b>0.1015</b>	<b>3.5284</b>	<b>0.0000</b>	<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
<b>Total</b>	<b>0.0643</b>	<b>0.0376</b>	<b>0.4913</b>	<b>1.5900e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>158.3919</b>	<b>158.3919</b>	<b>3.5400e-003</b>		<b>158.4804</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.8 Paving 2 - 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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
<b>Total</b>	<b>0.0482</b>	<b>0.0282</b>	<b>0.3685</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>118.7939</b>	<b>118.7939</b>	<b>2.6600e-003</b>		<b>118.8603</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.8 Paving 2 - 2021**

**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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2933</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
<b>Total</b>	<b>0.0482</b>	<b>0.0282</b>	<b>0.3685</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>118.7939</b>	<b>118.7939</b>	<b>2.6600e-003</b>		<b>118.8603</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 2021**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.1975	40.5473	9.4881	0.1117	2.8025	0.0803	2.8829	0.8068	0.0768	0.8836		11,846.3823	11,846.3823	0.5368		11,859.8033
Worker	3.1783	1.7899	24.0368	0.0813	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		8,101.9488	8,101.9488	0.1688		8,106.1697
<b>Total</b>	<b>4.3758</b>	<b>42.3372</b>	<b>33.5249</b>	<b>0.1930</b>	<b>11.5266</b>	<b>0.1340</b>	<b>11.6605</b>	<b>3.1208</b>	<b>0.1262</b>	<b>3.2470</b>		<b>19,948.3311</b>	<b>19,948.3311</b>	<b>0.7057</b>		<b>19,965.9730</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 2022**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.1975	40.5473	9.4881	0.1117	2.8025	0.0803	2.8829	0.8068	0.0768	0.8836		11,846.3823	11,846.3823	0.5368		11,859.8033
Worker	3.1783	1.7899	24.0368	0.0813	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		8,101.9488	8,101.9488	0.1688		8,106.1697
<b>Total</b>	<b>4.3758</b>	<b>42.3372</b>	<b>33.5249</b>	<b>0.1930</b>	<b>11.5266</b>	<b>0.1340</b>	<b>11.6605</b>	<b>3.1208</b>	<b>0.1262</b>	<b>3.2470</b>		<b>19,948.3311</b>	<b>19,948.3311</b>	<b>0.7057</b>		<b>19,965.9730</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.8974	31.3345	8.5417	0.1085	2.8026	0.0357	2.8383	0.8068	0.0341	0.8409		11,513.1295	11,513.1295	0.4588		11,524.6001
Worker	2.9671	1.6099	22.1688	0.0781	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,791.3499	7,791.3499	0.1516		7,795.1399
<b>Total</b>	<b>3.8645</b>	<b>32.9444</b>	<b>30.7105</b>	<b>0.1866</b>	<b>11.5267</b>	<b>0.0882</b>	<b>11.6148</b>	<b>3.1208</b>	<b>0.0824</b>	<b>3.2032</b>		<b>19,304.4794</b>	<b>19,304.4794</b>	<b>0.6104</b>		<b>19,319.7400</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Construction 2 - 2023**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.8974	31.3345	8.5417	0.1085	2.8026	0.0357	2.8383	0.8068	0.0341	0.8409		11,513.1295	11,513.1295	0.4588		11,524.6001
Worker	2.9671	1.6099	22.1688	0.0781	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,791.3499	7,791.3499	0.1516		7,795.1399
<b>Total</b>	<b>3.8645</b>	<b>32.9444</b>	<b>30.7105</b>	<b>0.1866</b>	<b>11.5267</b>	<b>0.0882</b>	<b>11.6148</b>	<b>3.1208</b>	<b>0.0824</b>	<b>3.2032</b>		<b>19,304.4794</b>	<b>19,304.4794</b>	<b>0.6104</b>		<b>19,319.7400</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6345	0.3573	4.7983	0.0162	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,617.3382	1,617.3382	0.0337		1,618.1808
<b>Total</b>	<b>0.6345</b>	<b>0.3573</b>	<b>4.7983</b>	<b>0.0162</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,617.3382</b>	<b>1,617.3382</b>	<b>0.0337</b>		<b>1,618.1808</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 2022**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6345	0.3573	4.7983	0.0162	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,617.3382	1,617.3382	0.0337		1,618.1808
<b>Total</b>	<b>0.6345</b>	<b>0.3573</b>	<b>4.7983</b>	<b>0.0162</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,617.3382</b>	<b>1,617.3382</b>	<b>0.0337</b>		<b>1,618.1808</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.5923	0.3214	4.4254	0.0156	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,555.3354	1,555.3354	0.0303		1,556.0920
<b>Total</b>	<b>0.5923</b>	<b>0.3214</b>	<b>4.4254</b>	<b>0.0156</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,555.3354</b>	<b>1,555.3354</b>	<b>0.0303</b>		<b>1,556.0920</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.5923	0.3214	4.4254	0.0156	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,555.3354	1,555.3354	0.0303		1,556.0920
<b>Total</b>	<b>0.5923</b>	<b>0.3214</b>	<b>4.4254</b>	<b>0.0156</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,555.3354</b>	<b>1,555.3354</b>	<b>0.0303</b>		<b>1,556.0920</b>

**4.0 Operational Detail - Mobile**

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	5.9693	23.1883	63.5863	0.2512	22.9052	0.1925	23.0977	6.1272	0.1796	6.3068		25,445.55 49	25,445.55 49	0.8119		25,465.85 10
Unmitigated	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.16 15	27,200.16 15	0.8580		27,221.61 22

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	7,794,894
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	2,988,512
<b>Total</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>11,582,607</b>	<b>10,783,407</b>

**4.3 Trip Type Information**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	0.6332	5.7565	4.8354	0.0345		0.4375	0.4375		0.4375	0.4375		6,907.7467	6,907.7467	0.1324	0.1266	6,948.7959
NaturalGas Unmitigated	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904

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					
Industrial Park	82312.1	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1426.03	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	lb/day										lb/day					
Industrial Park	57.709	0.6224	5.6577	4.7525	0.0340		0.4300	0.4300		0.4300	0.4300		6,789.2938	6,789.2938	0.1301	0.1245	6,829.6392
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
Unrefrigerated Warehouse-No Rail	1.00685	0.0109	0.0987	0.0829	5.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003		118.4529	118.4529	2.2700e-003	2.1700e-003	119.1568
<b>Total</b>		<b>0.6332</b>	<b>5.7565</b>	<b>4.8354</b>	<b>0.0345</b>		<b>0.4375</b>	<b>0.4375</b>		<b>0.4375</b>	<b>0.4375</b>		<b>6,907.7467</b>	<b>6,907.7467</b>	<b>0.1324</b>	<b>0.1266</b>	<b>6,948.7960</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Unmitigated	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795

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	5.7345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>48.4438</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>42.7094</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**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

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

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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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	245.88	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Project Characteristics - PG&E calculator

Land Use - questionnaire and site plan

Construction Phase - applicant provided

Demolition -

Grading - applicant provided

Architectural Coating - Mitigation

Vehicle Trips - TIA trip rate

Energy Use -

Construction Off-road Equipment Mitigation - Mitigation

Mobile Land Use Mitigation - applicant provided

Area Mitigation - Mitigation

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialImported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	245.88
tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 2.0 Emissions Summary

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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					
2020	13.2211	122.1399	96.1205	0.3013	20.5348	3.7059	24.2407	7.0531	3.4497	10.5028	0.0000	30,395.0106	30,395.0106	3.4696	0.0000	30,481.7513
2021	12.0787	111.5134	90.6047	0.2967	20.5349	3.2009	23.7358	7.0532	2.9752	10.0284	0.0000	29,941.4234	29,941.4234	3.3992	0.0000	30,026.4028
2022	7.2294	60.5286	55.9447	0.2286	13.2681	1.0383	14.3064	3.5827	0.9817	4.5645	0.0000	23,333.2826	23,333.2826	1.3988	0.0000	23,368.2532
2023	6.5119	49.5587	52.4101	0.2220	13.2682	0.8708	14.1390	3.5827	0.8228	4.4056	0.0000	22,669.4796	22,669.4796	1.2858	0.0000	22,701.6244
<b>Maximum</b>	<b>13.2211</b>	<b>122.1399</b>	<b>96.1205</b>	<b>0.3013</b>	<b>20.5349</b>	<b>3.7059</b>	<b>24.2407</b>	<b>7.0532</b>	<b>3.4497</b>	<b>10.5028</b>	<b>0.0000</b>	<b>30,395.0106</b>	<b>30,395.0106</b>	<b>3.4696</b>	<b>0.0000</b>	<b>30,481.7513</b>





Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.0042	25,494.0042	0.8690		25,515.7279
<b>Total</b>	<b>54.6415</b>	<b>33.4851</b>	<b>73.9294</b>	<b>0.3009</b>	<b>24.6028</b>	<b>0.8311</b>	<b>25.4338</b>	<b>6.5813</b>	<b>0.8173</b>	<b>7.3986</b>		<b>35,346.2835</b>	<b>35,346.2835</b>	<b>1.0597</b>	<b>0.1806</b>	<b>35,426.5978</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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.6332	5.7565	4.8354	0.0345		0.4375	0.4375		0.4375	0.4375		6,907.7467	6,907.7467	0.1324	0.1266	6,948.7959
Mobile	5.1480	24.3588	63.2931	0.2353	22.9052	0.1933	23.0985	6.1272	0.1804	6.3076		23,846.1755	23,846.1755	0.8246		23,866.7910
<b>Total</b>	<b>48.4906</b>	<b>30.1183</b>	<b>68.4693</b>	<b>0.2699</b>	<b>22.9052</b>	<b>0.6320</b>	<b>23.5372</b>	<b>6.1272</b>	<b>0.6191</b>	<b>6.7463</b>		<b>30,754.6538</b>	<b>30,754.6538</b>	<b>0.9589</b>	<b>0.1266</b>	<b>30,816.3664</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	11.26	10.05	7.39	10.30	6.90	23.95	7.46	6.90	24.25	8.82	0.00	12.99	12.99	9.51	29.88	13.01

### 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	3/2/2020	5/4/2020	5	46	
2	Grading	Grading	5/5/2020	6/16/2020	5	31	
3	Paving	Paving	6/17/2020	7/1/2020	5	11	
4	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
5	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
6	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
7	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
8	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
9	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 40.08

Acres of Paving: 17.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading 2	Excavators	2	8.00	158	0.38
Grading 2	Graders	1	8.00	187	0.41
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Construction 2	Cranes	1	7.00	231	0.29
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45
Architectural Coating 2	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	6	15.00	0.00	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3085	0.0000	0.3085	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3085</b>	<b>1.6587</b>	<b>1.9672</b>	<b>0.0467</b>	<b>1.5419</b>	<b>1.5886</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0122	0.4211	0.0879	1.1200e-003	0.0251	1.3700e-003	0.0264	6.8700e-003	1.3100e-003	8.1800e-003		120.0186	120.0186	6.4100e-003		120.1790
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0673</b>	<b>0.4601</b>	<b>0.4659</b>	<b>2.2600e-003</b>	<b>0.1483</b>	<b>2.1700e-003</b>	<b>0.1505</b>	<b>0.0396</b>	<b>2.0500e-003</b>	<b>0.0416</b>		<b>233.4285</b>	<b>233.4285</b>	<b>9.1800e-003</b>		<b>233.6581</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Demolition - 2020**

**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					0.3085	0.0000	0.3085	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>0.4623</b>	<b>2.0032</b>	<b>23.2798</b>	<b>0.0388</b>	<b>0.3085</b>	<b>0.0616</b>	<b>0.3702</b>	<b>0.0467</b>	<b>0.0616</b>	<b>0.1084</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0122	0.4211	0.0879	1.1200e-003	0.0251	1.3700e-003	0.0264	6.8700e-003	1.3100e-003	8.1800e-003		120.0186	120.0186	6.4100e-003		120.1790
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0673</b>	<b>0.4601</b>	<b>0.4659</b>	<b>2.2600e-003</b>	<b>0.1483</b>	<b>2.1700e-003</b>	<b>0.1505</b>	<b>0.0396</b>	<b>2.0500e-003</b>	<b>0.0416</b>		<b>233.4285</b>	<b>233.4285</b>	<b>9.1800e-003</b>		<b>233.6581</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>		<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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	0.8546	29.5841	6.1781	0.0789	1.7611	0.0960	1.8571	0.4826	0.0919	0.5745		8,432.3949	8,432.3949	0.4506		8,443.6600
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.9281</b>	<b>29.6361</b>	<b>6.6821</b>	<b>0.0804</b>	<b>1.9254</b>	<b>0.0971</b>	<b>2.0225</b>	<b>0.5262</b>	<b>0.0929</b>	<b>0.6190</b>		<b>8,583.6080</b>	<b>8,583.6080</b>	<b>0.4543</b>		<b>8,594.9656</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Grading - 2020**

**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					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.4844</b>	<b>0.1015</b>	<b>7.5860</b>	<b>3.4721</b>	<b>0.1015</b>	<b>3.5736</b>	<b>0.0000</b>	<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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	0.8546	29.5841	6.1781	0.0789	1.7611	0.0960	1.8571	0.4826	0.0919	0.5745		8,432.3949	8,432.3949	0.4506		8,443.6600
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.9281</b>	<b>29.6361</b>	<b>6.6821</b>	<b>0.0804</b>	<b>1.9254</b>	<b>0.0971</b>	<b>2.0225</b>	<b>0.5262</b>	<b>0.0929</b>	<b>0.6190</b>		<b>8,583.6080</b>	<b>8,583.6080</b>	<b>0.4543</b>		<b>8,594.9656</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0552</b>	<b>0.0390</b>	<b>0.3780</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>113.4098</b>	<b>113.4098</b>	<b>2.7700e-003</b>		<b>113.4792</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Paving - 2020**

**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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>4.3319</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0552</b>	<b>0.0390</b>	<b>0.3780</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>113.4098</b>	<b>113.4098</b>	<b>2.7700e-003</b>		<b>113.4792</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.6516	47.7082	12.8750	0.1112	2.8023	0.2352	3.0375	0.8067	0.2250	1.0317		11,771.14 78	11,771.147 8	0.6433		11,787.229 6
Worker	3.9044	2.7612	26.7612	0.0806	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,029.414 7	8,029.414 7	0.1964		8,034.324 4
<b>Total</b>	<b>5.5560</b>	<b>50.4693</b>	<b>39.6362</b>	<b>0.1918</b>	<b>11.5264</b>	<b>0.2917</b>	<b>11.8181</b>	<b>3.1207</b>	<b>0.2770</b>	<b>3.3977</b>		<b>19,800.56 25</b>	<b>19,800.56 25</b>	<b>0.8397</b>		<b>19,821.55 40</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.5 Building Construction - 2020**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.6516	47.7082	12.8750	0.1112	2.8023	0.2352	3.0375	0.8067	0.2250	1.0317		11,771.147 8	11,771.147 8	0.6433		11,787.229 6
Worker	3.9044	2.7612	26.7612	0.0806	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,029.414 7	8,029.414 7	0.1964		8,034.324 4
<b>Total</b>	<b>5.5560</b>	<b>50.4693</b>	<b>39.6362</b>	<b>0.1918</b>	<b>11.5264</b>	<b>0.2917</b>	<b>11.8181</b>	<b>3.1207</b>	<b>0.2770</b>	<b>3.3977</b>		<b>19,800.56 25</b>	<b>19,800.56 25</b>	<b>0.8397</b>		<b>19,821.55 40</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.5 Building Construction - 2021**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7794	0.5512	5.3422	0.0161	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,602.8587	1,602.8587	0.0392		1,603.8388
<b>Total</b>	<b>0.7794</b>	<b>0.5512</b>	<b>5.3422</b>	<b>0.0161</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,602.8587</b>	<b>1,602.8587</b>	<b>0.0392</b>		<b>1,603.8388</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Architectural Coating - 2020**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7794	0.5512	5.3422	0.0161	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,602.8587	1,602.8587	0.0392		1,603.8388
<b>Total</b>	<b>0.7794</b>	<b>0.5512</b>	<b>5.3422</b>	<b>0.0161</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,602.8587</b>	<b>1,602.8587</b>	<b>0.0392</b>		<b>1,603.8388</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Architectural Coating - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>		<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0735</b>	<b>0.0520</b>	<b>0.5040</b>	<b>1.5200e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>151.2131</b>	<b>151.2131</b>	<b>3.7000e-003</b>		<b>151.3055</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Grading 2 - 2020**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.1026</b>	<b>0.1015</b>	<b>7.2041</b>	<b>3.4269</b>	<b>0.1015</b>	<b>3.5284</b>	<b>0.0000</b>	<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0735</b>	<b>0.0520</b>	<b>0.5040</b>	<b>1.5200e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>151.2131</b>	<b>151.2131</b>	<b>3.7000e-003</b>		<b>151.3055</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Grading 2 - 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	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>		<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
<b>Total</b>	<b>0.0681</b>	<b>0.0464</b>	<b>0.4596</b>	<b>1.4600e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>145.9073</b>	<b>145.9073</b>	<b>3.3000e-003</b>		<b>145.9899</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Grading 2 - 2021**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>0.7616</b>	<b>3.3000</b>	<b>32.9991</b>	<b>0.0620</b>	<b>7.1026</b>	<b>0.1015</b>	<b>7.2041</b>	<b>3.4269</b>	<b>0.1015</b>	<b>3.5284</b>	<b>0.0000</b>	<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
<b>Total</b>	<b>0.0681</b>	<b>0.0464</b>	<b>0.4596</b>	<b>1.4600e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>145.9073</b>	<b>145.9073</b>	<b>3.3000e-003</b>		<b>145.9899</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.8 Paving 2 - 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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
<b>Total</b>	<b>0.0511</b>	<b>0.0348</b>	<b>0.3447</b>	<b>1.1000e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>109.4305</b>	<b>109.4305</b>	<b>2.4800e-003</b>		<b>109.4924</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.8 Paving 2 - 2021**

**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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2933</b>	<b>1.2154</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.0374</b>	<b>0.0374</b>		<b>0.0374</b>	<b>0.0374</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
<b>Total</b>	<b>0.0511</b>	<b>0.0348</b>	<b>0.3447</b>	<b>1.1000e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>109.4305</b>	<b>109.4305</b>	<b>2.4800e-003</b>		<b>109.4924</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 2021**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.2683	40.8531	10.9007	0.1089	2.8025	0.0833	2.8858	0.8068	0.0796	0.8864		11,543.9307	11,543.9307	0.5803		11,558.4371
Worker	3.3764	2.2102	22.3962	0.0749	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		7,463.6513	7,463.6513	0.1570		7,467.5754
<b>Total</b>	<b>4.6446</b>	<b>43.0633</b>	<b>33.2969</b>	<b>0.1838</b>	<b>11.5266</b>	<b>0.1369</b>	<b>11.6635</b>	<b>3.1208</b>	<b>0.1290</b>	<b>3.2498</b>		<b>19,007.5819</b>	<b>19,007.5819</b>	<b>0.7372</b>		<b>19,026.0124</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 2022**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.2683	40.8531	10.9007	0.1089	2.8025	0.0833	2.8858	0.8068	0.0796	0.8864		11,543.9307	11,543.9307	0.5803		11,558.4371
Worker	3.3764	2.2102	22.3962	0.0749	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		7,463.6513	7,463.6513	0.1570		7,467.5754
<b>Total</b>	<b>4.6446</b>	<b>43.0633</b>	<b>33.2969</b>	<b>0.1838</b>	<b>11.5266</b>	<b>0.1369</b>	<b>11.6635</b>	<b>3.1208</b>	<b>0.1290</b>	<b>3.2498</b>		<b>19,007.5819</b>	<b>19,007.5819</b>	<b>0.7372</b>		<b>19,026.0124</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.9534	31.4873	9.6796	0.1058	2.8026	0.0372	2.8398	0.8068	0.0356	0.8424		11,222.1340	11,222.1340	0.4926		11,234.4493
Worker	3.1627	1.9869	20.5692	0.0720	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,177.8259	7,177.8259	0.1405		7,181.3373
<b>Total</b>	<b>4.1161</b>	<b>33.4742</b>	<b>30.2488</b>	<b>0.1778</b>	<b>11.5267</b>	<b>0.0898</b>	<b>11.6164</b>	<b>3.1208</b>	<b>0.0840</b>	<b>3.2048</b>		<b>18,399.9600</b>	<b>18,399.9600</b>	<b>0.6331</b>		<b>18,415.7867</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Construction 2 - 2023**

**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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>0.3278</b>	<b>2.2347</b>	<b>17.4603</b>	<b>0.0269</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.9534	31.4873	9.6796	0.1058	2.8026	0.0372	2.8398	0.8068	0.0356	0.8424		11,222.1340	11,222.1340	0.4926		11,234.4493
Worker	3.1627	1.9869	20.5692	0.0720	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,177.8259	7,177.8259	0.1405		7,181.3373
<b>Total</b>	<b>4.1161</b>	<b>33.4742</b>	<b>30.2488</b>	<b>0.1778</b>	<b>11.5267</b>	<b>0.0898</b>	<b>11.6164</b>	<b>3.1208</b>	<b>0.0840</b>	<b>3.2048</b>		<b>18,399.9600</b>	<b>18,399.9600</b>	<b>0.6331</b>		<b>18,415.7867</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6740	0.4412	4.4708	0.0149	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,489.9191	1,489.9191	0.0313		1,490.7024
<b>Total</b>	<b>0.6740</b>	<b>0.4412</b>	<b>4.4708</b>	<b>0.0149</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,489.9191</b>	<b>1,489.9191</b>	<b>0.0313</b>		<b>1,490.7024</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 2022**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6740	0.4412	4.4708	0.0149	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,489.9191	1,489.9191	0.0313		1,490.7024
<b>Total</b>	<b>0.6740</b>	<b>0.4412</b>	<b>4.4708</b>	<b>0.0149</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,489.9191</b>	<b>1,489.9191</b>	<b>0.0313</b>		<b>1,490.7024</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.6314	0.3966	4.1061	0.0144	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,432.8617	1,432.8617	0.0280		1,433.5626
<b>Total</b>	<b>0.6314</b>	<b>0.3966</b>	<b>4.1061</b>	<b>0.0144</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,432.8617</b>	<b>1,432.8617</b>	<b>0.0280</b>		<b>1,433.5626</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.0297</b>	<b>0.1288</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>		<b>3.9600e-003</b>	<b>3.9600e-003</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.6314	0.3966	4.1061	0.0144	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,432.8617	1,432.8617	0.0280		1,433.5626
<b>Total</b>	<b>0.6314</b>	<b>0.3966</b>	<b>4.1061</b>	<b>0.0144</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,432.8617</b>	<b>1,432.8617</b>	<b>0.0280</b>		<b>1,433.5626</b>

**4.0 Operational Detail - Mobile**

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	5.1480	24.3588	63.2931	0.2353	22.9052	0.1933	23.0985	6.1272	0.1804	6.3076		23,846.17 55	23,846.17 55	0.8246		23,866.79 10
Unmitigated	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.00 42	25,494.00 42	0.8690		25,515.72 79

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	7,794,894
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	2,988,512
Total	4,292.92	4,292.92	4,292.92	11,582,607	10,783,407

**4.3 Trip Type Information**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	0.6332	5.7565	4.8354	0.0345		0.4375	0.4375		0.4375	0.4375		6,907.7467	6,907.7467	0.1324	0.1266	6,948.7959
NaturalGas Unmitigated	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904

**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					
Industrial Park	82312.1	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1426.03	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**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					
Industrial Park	57.709	0.6224	5.6577	4.7525	0.0340		0.4300	0.4300		0.4300	0.4300		6,789.2938	6,789.2938	0.1301	0.1245	6,829.6392
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
Unrefrigerated Warehouse-No Rail	1.00685	0.0109	0.0987	0.0829	5.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003		118.4529	118.4529	2.2700e-003	2.1700e-003	119.1568
<b>Total</b>		<b>0.6332</b>	<b>5.7565</b>	<b>4.8354</b>	<b>0.0345</b>		<b>0.4375</b>	<b>0.4375</b>		<b>0.4375</b>	<b>0.4375</b>		<b>6,907.7467</b>	<b>6,907.7467</b>	<b>0.1324</b>	<b>0.1266</b>	<b>6,948.7960</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Unmitigated	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795

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	5.7345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>48.4438</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>42.7094</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**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**

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

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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**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Mitigation Report**

**Construction Mitigation Summary**

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.22	0.71	0.00	0.00	0.87	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating 2	0.22	0.71	0.00	0.00	0.84	0.85	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.25	0.24	-0.01	0.00	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Construction 2	0.24	0.24	-0.02	0.00	0.82	0.82	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.84	0.93	-0.07	0.00	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.69	0.59	-0.03	0.00	0.91	0.91	0.00	0.00	0.00	0.00	0.00	0.00
Grading 2	0.81	0.93	-0.04	0.00	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.20	0.91	-0.18	0.00	0.95	0.94	0.00	0.00	0.00	0.00	0.00	0.00
Paving 2	0.42	0.90	-0.18	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00

**OFFROAD Equipment Mitigation**

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	Tier 4 Final	2	2	No Change	0.00
Concrete/Industrial Saws	Diesel	Tier 4 Final	1	1	No Change	0.00
Cranes	Diesel	Tier 4 Final	2	2	No Change	0.00
Excavators	Diesel	Tier 4 Final	7	7	No Change	0.00
Forklifts	Diesel	Tier 4 Final	6	6	No Change	0.00
Generator Sets	Diesel	Tier 4 Final	2	2	No Change	0.00
Graders	Diesel	Tier 4 Final	2	2	No Change	0.00
Pavers	Diesel	Tier 4 Final	4	4	No Change	0.00
Paving Equipment	Diesel	Tier 4 Final	4	4	No Change	0.00
Rollers	Diesel	Tier 4 Final	4	4	No Change	0.00
Rubber Tired Dozers	Diesel	Tier 4 Final	4	4	No Change	0.00
Scrapers	Diesel	Tier 4 Final	4	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	10	10	No Change	0.00
Welders	Diesel	Tier 4 Final	2	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	8.07900E-002	5.57760E-001	6.94950E-001	1.14000E-003	3.32800E-002	3.32800E-002	0.00000E+000	9.76620E+001	9.76620E+001	6.52000E-003	0.00000E+000	9.78249E+001
Concrete/Industrial Saws	9.62000E-003	7.58700E-002	8.47900E-002	1.40000E-004	4.56000E-003	4.56000E-003	0.00000E+000	1.23661E+001	1.23661E+001	7.80000E-004	0.00000E+000	1.23857E+001
Cranes	1.31350E-001	1.50064E+000	6.49760E-001	1.93000E-003	6.18900E-002	5.69400E-002	0.00000E+000	1.69664E+002	1.69664E+002	5.48700E-002	0.00000E+000	1.71036E+002
Excavators	5.42900E-002	5.30840E-001	7.32140E-001	1.16000E-003	2.57200E-002	2.36600E-002	0.00000E+000	1.01631E+002	1.01631E+002	3.28700E-002	0.00000E+000	1.02453E+002
Forklifts	1.38240E-001	1.27124E+000	1.33110E+000	1.75000E-003	8.69100E-002	7.99500E-002	0.00000E+000	1.54099E+002	1.54099E+002	4.98400E-002	0.00000E+000	1.55345E+002
Generator Sets	1.31440E-001	1.16184E+000	1.40831E+000	2.52000E-003	5.99200E-002	5.99200E-002	0.00000E+000	2.16192E+002	2.16192E+002	1.06300E-002	0.00000E+000	2.16458E+002
Graders	3.64500E-002	4.82810E-001	1.39750E-001	5.10000E-004	1.54000E-002	1.41700E-002	0.00000E+000	4.51701E+001	4.51701E+001	1.46100E-002	0.00000E+000	4.55354E+001
Pavers	1.37200E-002	1.45090E-001	1.59690E-001	2.60000E-004	7.02000E-003	6.46000E-003	0.00000E+000	2.27074E+001	2.27074E+001	7.34000E-003	0.00000E+000	2.28910E+001
Paving Equipment	1.07300E-002	1.08930E-001	1.39700E-001	2.20000E-004	5.39000E-003	4.96000E-003	0.00000E+000	1.96822E+001	1.96822E+001	6.37000E-003	0.00000E+000	1.98413E+001
Rollers	1.06300E-002	1.07560E-001	1.03570E-001	1.40000E-004	6.64000E-003	6.10000E-003	0.00000E+000	1.26776E+001	1.26776E+001	4.10000E-003	0.00000E+000	1.27801E+001
Rubber Tired Dozers	1.32700E-001	1.39285E+000	5.08520E-001	1.05000E-003	6.81200E-002	6.26700E-002	0.00000E+000	9.26934E+001	9.26934E+001	2.99800E-002	0.00000E+000	9.34429E+001
Scrapers	1.51550E-001	1.78275E+000	1.13929E+000	2.35000E-003	6.94900E-002	6.39300E-002	0.00000E+000	2.06312E+002	2.06312E+002	6.67300E-002	0.00000E+000	2.07981E+002
Tractors/Loaders/Backhoes	2.07700E-001	2.10162E+000	2.61126E+000	3.60000E-003	1.20230E-001	1.10620E-001	0.00000E+000	3.16600E+002	3.16600E+002	1.02390E-001	0.00000E+000	3.19160E+002
Welders	1.10830E-001	5.67660E-001	6.54100E-001	9.80000E-004	2.62200E-002	2.62200E-002	0.00000E+000	7.19944E+001	7.19944E+001	8.99000E-003	0.00000E+000	7.22192E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	1.13700E-002	4.92500E-002	7.00900E-001	1.14000E-003	1.52000E-003	1.52000E-003	0.00000E+000	9.76618E+001	9.76618E+001	6.52000E-003	0.00000E+000	9.78248E+001
Concrete/Industrial Saws	1.44000E-003	6.24000E-003	8.87500E-002	1.40000E-004	1.90000E-004	1.90000E-004	0.00000E+000	1.23661E+001	1.23661E+001	7.80000E-004	0.00000E+000	1.23857E+001
Cranes	2.37300E-002	1.02810E-001	8.69950E-001	1.93000E-003	3.16000E-003	3.16000E-003	0.00000E+000	1.69664E+002	1.69664E+002	5.48700E-002	0.00000E+000	1.71035E+002
Excavators	1.42300E-002	6.16700E-002	8.77640E-001	1.16000E-003	1.90000E-003	1.90000E-003	0.00000E+000	1.01631E+002	1.01631E+002	3.28700E-002	0.00000E+000	1.02453E+002
Forklifts	2.16100E-002	9.36600E-002	1.33290E+000	1.75000E-003	2.88000E-003	2.88000E-003	0.00000E+000	1.54099E+002	1.54099E+002	4.98400E-002	0.00000E+000	1.55345E+002
Generator Sets	2.51600E-002	1.09030E-001	1.55156E+000	2.52000E-003	3.35000E-003	3.35000E-003	0.00000E+000	2.16192E+002	2.16192E+002	1.06300E-002	0.00000E+000	2.16457E+002
Graders	6.29000E-003	2.72500E-002	2.30550E-001	5.10000E-004	8.40000E-004	8.40000E-004	0.00000E+000	4.51701E+001	4.51701E+001	1.46100E-002	0.00000E+000	4.55353E+001
Pavers	3.18000E-003	1.37700E-002	1.95970E-001	2.60000E-004	4.20000E-004	4.20000E-004	0.00000E+000	2.27074E+001	2.27074E+001	7.34000E-003	0.00000E+000	2.28910E+001
Paving Equipment	2.77000E-003	1.19800E-002	1.70560E-001	2.20000E-004	3.70000E-004	3.70000E-004	0.00000E+000	1.96821E+001	1.96821E+001	6.37000E-003	0.00000E+000	1.98413E+001
Rollers	1.77000E-003	7.67000E-003	1.09110E-001	1.40000E-004	2.40000E-004	2.40000E-004	0.00000E+000	1.26776E+001	1.26776E+001	4.10000E-003	0.00000E+000	1.27801E+001
Rubber Tired Dozers	1.29100E-002	5.59500E-002	4.73450E-001	1.05000E-003	1.72000E-003	1.72000E-003	0.00000E+000	9.26933E+001	9.26933E+001	2.99800E-002	0.00000E+000	9.34428E+001
Scrapers	2.88900E-002	1.25210E-001	1.05946E+000	2.35000E-003	3.85000E-003	3.85000E-003	0.00000E+000	2.06312E+002	2.06312E+002	6.67300E-002	0.00000E+000	2.07980E+002
Tractors/Loaders/Balkhoes	4.40200E-002	1.90760E-001	2.71460E+000	3.60000E-003	5.87000E-003	5.87000E-003	0.00000E+000	3.16600E+002	3.16600E+002	1.02390E-001	0.00000E+000	3.19160E+002
Welders	1.67600E-002	3.84020E-001	5.72540E-001	9.80000E-004	1.12000E-003	1.12000E-003	0.00000E+000	7.19943E+001	7.19943E+001	8.99000E-003	0.00000E+000	7.22191E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	8.59265E-001	9.11700E-001	-8.56177E-003	0.00000E+000	9.54327E-001	9.54327E-001	0.00000E+000	1.22873E-006	1.22873E-006	0.00000E+000	0.00000E+000	1.22668E-006
Concrete/Industrial Saws	8.50312E-001	9.17754E-001	-4.67036E-002	0.00000E+000	9.58333E-001	9.58333E-001	0.00000E+000	1.61732E-006	1.61732E-006	0.00000E+000	0.00000E+000	1.61477E-006
Cranes	8.19338E-001	9.31489E-001	-3.38879E-001	0.00000E+000	9.48942E-001	9.44503E-001	0.00000E+000	1.17880E-006	1.17880E-006	0.00000E+000	0.00000E+000	1.22781E-006
Excavators	7.37889E-001	8.83826E-001	-1.98732E-001	0.00000E+000	9.26128E-001	9.19696E-001	0.00000E+000	1.18074E-006	1.18074E-006	0.00000E+000	0.00000E+000	1.17127E-006
Forklifts	8.43678E-001	9.26324E-001	-1.35227E-003	0.00000E+000	9.66862E-001	9.63977E-001	0.00000E+000	1.16808E-006	1.16808E-006	0.00000E+000	0.00000E+000	1.22308E-006
Generator Sets	8.08582E-001	9.06157E-001	-1.01718E-001	0.00000E+000	9.44092E-001	9.44092E-001	0.00000E+000	1.20264E-006	1.20264E-006	0.00000E+000	0.00000E+000	1.15496E-006
Graders	8.27435E-001	9.43560E-001	-6.49732E-001	0.00000E+000	9.45455E-001	9.40720E-001	0.00000E+000	1.10693E-006	1.10693E-006	0.00000E+000	0.00000E+000	1.09805E-006
Pavers	7.68222E-001	9.05093E-001	-2.27190E-001	0.00000E+000	9.40171E-001	9.34985E-001	0.00000E+000	8.80769E-007	8.80769E-007	0.00000E+000	0.00000E+000	8.73704E-007
Paving Equipment	7.41845E-001	8.90021E-001	-2.20902E-001	0.00000E+000	9.31354E-001	9.25403E-001	0.00000E+000	1.01615E-006	1.01615E-006	0.00000E+000	0.00000E+000	1.00800E-006
Rollers	8.33490E-001	9.28691E-001	-5.34904E-002	0.00000E+000	9.63855E-001	9.60656E-001	0.00000E+000	7.88794E-007	7.88794E-007	0.00000E+000	0.00000E+000	1.56493E-006
Rubber Tired Dozers	9.02713E-001	9.59831E-001	6.89648E-002	0.00000E+000	9.74750E-001	9.72555E-001	0.00000E+000	1.18671E-006	1.18671E-006	0.00000E+000	0.00000E+000	1.17719E-006
Scrapers	8.09370E-001	9.29766E-001	7.00700E-002	0.00000E+000	9.44596E-001	9.39778E-001	0.00000E+000	1.21175E-006	1.21175E-006	0.00000E+000	0.00000E+000	1.20204E-006
Tractors/Loaders/Balkhoes	7.88060E-001	9.09232E-001	-3.95748E-002	0.00000E+000	9.51177E-001	9.46935E-001	0.00000E+000	1.20025E-006	1.20025E-006	0.00000E+000	0.00000E+000	1.19062E-006
Welders	8.48777E-001	3.23504E-001	1.24690E-001	0.00000E+000	9.57285E-001	9.57285E-001	0.00000E+000	1.25010E-006	1.25010E-006	0.00000E+000	0.00000E+000	1.24621E-006

**Fugitive Dust Mitigation**

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00	
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00	
No	Water Exposed Area	PM10 Reduction	0.00	PM2.5 Reduction	0.00	Frequency (per day)





**Operational Percent Reduction Summary**

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.10	10.10	10.10	10.11	10.10
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	2.72	3.53	5.28	6.45	6.13	6.14	0.00	6.44	6.44	5.21	0.00	6.44
Natural Gas	29.88	29.88	29.88	29.81	29.88	29.88	0.00	29.88	29.88	29.88	29.87	29.88
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Operational Mobile Mitigation**

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.05	0.23		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.08	0.50		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.05			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site	
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00		
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02		
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00	
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00	
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00	
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00	0.00	
No	Transit Improvements	Expand Transit Network	0.00	0.00	
No	Transit Improvements	Increase Transit Frequency	0.00		0.00
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.07		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"	3.00		
No	Commute	Workplace Parking Charge		0.00	
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program	5.00		
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.07		

**Area Mitigation**

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
Yes	Use Low VOC Paint (Non-residential Interior)	0.00
Yes	Use Low VOC Paint (Non-residential Exterior)	0.00
Yes	Use Low VOC Paint (Parking)	0.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

**Energy Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

**Water Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

**Solid Waste Mitigation**

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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## **Appendix B**

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# Exhibit A



Shawn Smallwood, PhD  
3108 Finch Street  
Davis, CA 95616

Joshua McMurray, Community Development Director  
City of Oakley  
Community Development Department  
3231 Main Street  
Oakley, CA 94561

24 November 2019

RE: Oakley Logistics Center

Mr. McMurray,

I write to comment on the biological resources portion of the Draft EIR prepared for the proposed Oakley Logistics Center (City of Oakley 2019), which I understand is to be 5 warehouses totaling 2 million square feet on a 375.7-acre site. I understand City of Oakley (2019) asserts that the project site composes only 143.3 acres, but the soil borrowing from the other 232.4 acres qualifies the entire 375.7 acres as the project site.

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, conservation of rare and endangered species, and on the ecology of invading species. I perform research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I authored numerous papers on special-status species issues, including “Using the best scientific data for endangered species conservation” (Smallwood et al. 1999), and “Suggested standards for science applied to conservation issues” (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I’ve been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology’s premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-three years, including at many proposed project sites. My CV is attached.

### **SITE VISITS**

I visited the proposed project site 09:49 hours to 11:04 hours on 4 November 2019, 16:12 to 16:53 hours on 15 November 2019, and 08:04 to 09:15 hours and 16:26 to 16:54 hours on 22 November 2019. The sky was clear and temperature was mild during all visits. Using 10-15x binoculars, I detected 47 species of vertebrate wildlife (Table 1). I have no doubt that had I stayed longer, or had I visited during additional seasons of the

year or times of day, I would have seen many more species of wildlife. This is a very species-rich site. Eleven of the species I saw are special-status species.

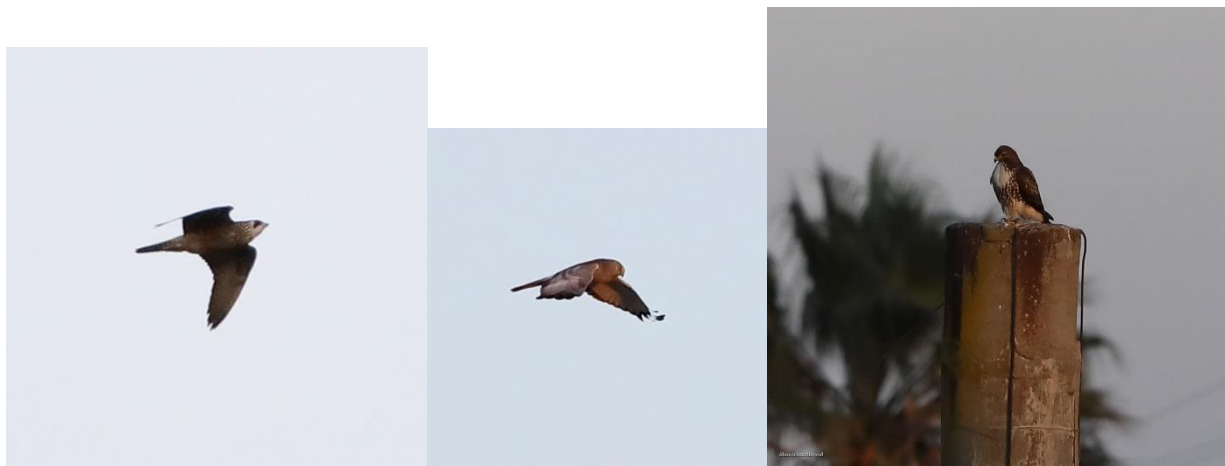
**Table 1.** Species of wildlife I observed during my visits to the western edge of the proposed Oakley Logistics Center 09:49 to 11:04 hours on 4 November 2019, 16:12 to 16:53 hours on 15 November 2019, and 08:04 to 09:15 hours and 16:26 to 16:54 hours on 22 November 2019.

Species	Scientific name	Status <sup>1</sup>	Note
California quail	<i>Callipepla californica</i>		
Double-crested cormorant	<i>Phalacrocorax auritus</i>	TWL	Flyovers
Turkey vulture	<i>Cathartes aura</i>	FGC 3503.5	
Northern harrier	<i>Circus cyaneus</i>	SSC3, FGC 3503.5	Foraging
Red-tailed hawk	<i>Buteo jamaicensis</i>	FGC 3503.5	Multiple
American kestrel	<i>Falco sparverius</i>	FGC 3503.5	
Peregrine falcon	<i>Falco peregrinus</i>	CE, CFP, FGC 3503.5	
California gull	<i>Larus californicus</i>	TWL	
Ring-billed gull	<i>Larus delawarensis</i>		Flyover
Mourning dove	<i>Zenaida macroura</i>		
Rock pigeon	<i>Columba livea</i>	Non-native	
Eurasian collared-dove	<i>Streptopelia decaocto</i>	Non-native	
Northern flicker	<i>Colaptes auratus</i>		
Anna's hummingbird	<i>Calypte anna</i>		
Black-chinned hummingbird	<i>Archilochus alexandri</i>		
White-throated swift	<i>Aeronautes saxatalis</i>		Foraging
Western kingbird	<i>Tyrannus verticalis</i>		
Black phoebe	<i>Sayornis nigricans</i>		Multiple
California scrub-jay	<i>Aphelocoma californica</i>		Many
American crow	<i>Corvus brachyrhynchos</i>		
Common raven	<i>Corvus corax</i>		
Bushtit	<i>Psaltriparus minimus</i>		
Northern mockingbird	<i>Mimus polyglottos</i>		
American robin	<i>Turdus migratorius</i>		
European starling	<i>Sturnus vulgaris</i>	Non-native	
Ruby-crowned kinglet	<i>Regulus calendula</i>		
MacGillivray's warbler	<i>Oporonis tolmiei</i>		
Yellow-rumped warbler	<i>Dendroica coronata</i>		
Suisun song sparrow	<i>Melospiza melodia maxillaris</i>	SSC3	
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC2	
Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>		
Savannah sparrow	<i>Passerculus sandwichensis</i>		
Rufous-crowned sparrow	<i>Aimophila ruficeps</i>		
Lincoln's sparrow	<i>Melospiza lincolni</i>		
White-crowned sparrow	<i>Zonotrichia leucophrys</i>		Many
Bullock's oriole	<i>Icterus galbula</i>		

Species	Scientific name	Status <sup>1</sup>	Note
Western meadowlark	<i>Sturnella neglecta</i>		
Brewer's blackbird	<i>Euphagus cyanocephalus</i>		
Tricolored blackbird	<i>Agelaius tricolor</i>	CT	Flyover
Red-winged blackbird	<i>Agelaius phoeniceus</i>		Flyover
Yellow-headed blackbird	<i>X. xanthocephalus</i>	SSC3	Flyover
House finch	<i>Carpodacus mexicanus</i>		
American goldfinch	<i>Carduelis tristis</i>		
Lesser goldfinch	<i>Carduelis psaltria</i>		
House sparrow	<i>Passer domesticus</i>	Non-native	
California ground squirrel	<i>Otospermophilus beecheyi</i>		
Eastern gray squirrel	<i>Sciurus carolinensis</i>	Non-native	

<sup>1</sup> Listed as BCC = federal Bird Species of Conservation Concern, CE and CT = California endangered and threatened, CFP = California Fully Protected (CDFG Code 3511), FGC 3503.5 = California Department of Fish and Game Code 3503.5 (Birds of prey), SSC1, 2, 3 = California Bird Species of Special Concern priorities 1, 2, and 3, respectively (Shuford and Gardali 2008), TWL = Taxa to Watch List (Shuford and Gardali 2008).

During my brief visits, I saw a peregrine falcon (Photo 1), northern harrier (photo 2), and multiple red-tailed hawks (Photo 3). During my evening visits I observed thousands of blackbirds flying over the site, including yellow-headed blackbirds mixed with red-winged blackbirds (Photo 4) and with tricolored blackbirds (Photo 5). California scrub-jays (Photo 6) were abundant, and were always busy collecting and caching acorns, which are pirated by many other species of birds, including golden-crowned sparrows (Photo 7). I saw Anna's hummingbirds (Photo 8) and American goldfinches (Photo 9), northern mockingbirds (Photo 10), white-throated swifts (Photo 11), savannah sparrows, (Photo 12), white-crowned sparrows (Photo 13), and yellow-rumped warblers (Photo 14). I also noticed many cavities in on-site trees constructed by woodpeckers (Photo 15), serving as granaries and nest sites for multiple species of birds for many years to come. I saw ample evidence of an intact, healthy wildlife community.



**Photos 1-3.** Peregrine falcon (left), northern harrier (middle) and red-tailed hawk (right) on the site of the proposed Oakley Logistics Center, November 2019.



**Photos 4 and 5.** Yellow-headed blackbirds with a red-winged blackbird (left) and tricolored blackbirds with yellow-headed blackbirds (right) on the site of the proposed Oakley Logistics Center, November 2019.



**Photos 6 and 7.** California scrub-jay (left) and golden-crowned sparrow (right) on the site of the proposed Oakley Logistics Center, November 2019. California scrub-jays are keystone species because they collect and cache thousands of acorns, which are pirated by many other animal species, including golden-crowned sparrows.



**Photos 8 and 9.** Anna's hummingbird (left) and American goldfinches (right) on the site of the proposed Oakley Logistics Center, November 2019.



**Photos 10 and 11.** Northern mockingbird (left) and white-throated swift (right) on the site of the proposed Oakley Logistics Center, November 2019.





**Photos 12 and 13.** Savannah sparrow (left) and white-crowned sparrow (right) on the site of the proposed Oakley Logistics Center, November 2019.



**Photos 14 and 15.** Yellow-rumped warbler (left) and woodpecker cavities (right) on the site of the proposed Oakley Logistics Center, November 2019.

## BIOLOGICAL IMPACTS ASSESSMENT

The project would diminish and destroy 375.7 acres of intensively-used wildlife habitat, while also adversely affecting wildlife using the adjacent Antioch/Oakley Shoreline and Big Break Regional Shoreline, both owned and managed by East Bay Regional Park District. It would do so shortly after Rosenberg et al. (2019) documented a 29% decline in overall bird abundance across North America over the last 48 years – a decline driven by multiple factors including habitat loss and habitat fragmentation.

Habitat loss not only results in the immediate numerical decline of wildlife, but also in permanent loss of productive capacity. Given that the project site supports 662 trees, the capacity of the project site for producing birds is enormous. For example, a wooded area at one study site in 1948 had a total bird nesting density of 32.8 nests per acre (Young 1948). This density multiplied against the project area would predict 12,323 bird nests per year. In another study, the average annual nest density was 35.8 nests per acre (Yahner 1982), which would predict 13,450 nests on the project site. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site was typical of bird productivity, the project site generates 35,737 to 39,005 new birds per year, depending on whether I rely on Young's (1948) or Yahner's (1982) nest density. This loss of capacity would total 3.6 million to 3.9 million birds after 100 years, and it would continue for as long as habitat remains displaced by impervious surfaces and borrow pits.

According to City of Oakley (2019:4.2-35), 10 special-status species of wildlife “*are considered to have a low or moderate potential to occur within the subject property.*” However, I detected 11 special-status species on site after only very cursory surveys restricted to the western edge of the project site, and City of Oakley (2019:4.2-35) reports that during a remediation effort in 2017, 4 more special-status species were detected on site, including California black rail, white-tailed kite, loggerhead shrike, and common yellowthroat. Whereas City of Oakley (2019) concludes that only 10 special-status species of wildlife have low to moderate occurrence potential, 15 special-status species have been detected on site by professional biologists, and another 31 special-status species of birds have been detected near the project site, according to eBird records (Table 2).

Based on my review of available habitat descriptions, range maps, and sighting records, 60 special-status species of vertebrate wildlife have potential to occur on site (Tables 2 and 3). Fifteen of these 60 species have recently been seen on site by professionals. Along with these 60 special-status species of wildlife that would suffer significant impacts due to the project, several hundred bird species protected by the federal Migratory Bird Treaty Act and California Fish and Game Code section 3513, which was recently amended to protect migratory birds after Governor Newsom signed AB 454 into law on 27 September 2019. Hence, the ca. 12,000 to 13,000 bird nests predicted to be on the project site (see earlier comment) are protected by both federal and state laws.

Without the benefit of any appropriate surveys, City of Oakley (2019) dismisses potential impacts on special-status species of bats. No acoustic detectors were deployed, nor were any surveys performed at night using a thermal-imaging camera or eyes on the sky. Without being informed by appropriate surveys, none of the bat species in Table 3 can be ruled out as dependent on the site for foraging or stopover roosting habitat.

## **Burrowing owls**

City of Oakley (2019:4.2-35) provides a flawed analysis of potential burrowing owl impacts, starting with pigeon-holing burrowing owls into an unrealistically narrow portion of the environment, “*Burrowing owls inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos.*” In fact, burrowing owls inhabit a variety of environments, so long as tall structures such as trees occur in low density (as is the case over large portions of the project site). For example, on a nearby site dominated by perennial grassland and wetlands in Solano County, I recorded the highest density of breeding burrowing owls so far appearing in the scientific literature, after accounting for the effect of study area size on density estimates (Smallwood and Morrison 2018). The deciding factor over whether burrowing owls breed on site is the availability of nest sites, such as artificial cavities or ground squirrel burrows.

Whether ground squirrels occur on site is another fallacy of City of Oakland’s (2019) analysis, because on page 4.2-35 City of Oakley implies that ground squirrels do not occur on site, although on page 4.2-50 City of Oakley says ground squirrels do occur on site. Just to clear things up, I observed ground squirrel burrows on site each time I visited the site. Even if the site was devoid of ground squirrels, burrowing owls could still find nesting opportunities under overhangs of impervious surfaces, within exposed pipelines, and within culverts – nest sites that I have recorded many times. Additionally, the site is likely used as stopover habitat during long-range movements by burrowing owls.

A third fallacy is the notion that burrowing owls are discouraged from the site because “*the grassland areas are routinely mowed*” (City of Oakley 2019:4.2-50). That the grasslands were routinely mowed at the Dixon National Radio Transmission Facility was a key reason why burrowing owls there nested in the highest density yet recorded (Smallwood and Morrison 2018). In an experiment performed at Naval Air Station Lemoore, Smallwood and Morrison (unpublished data) also found that mowing increased the number of burrowing owl breeding pairs. Mowed grasslands are no impediment to burrowing owl nesting.

A fourth fallacy of the City of Oakley’s analysis is its conclusions over burrowing owl occurrence likelihoods without having performed detection surveys consistent with CDFW (2012) guidelines. Concluding a low likelihood of occurrence is unfounded in the absence of detection surveys. Nor does it matter if some cursory survey reported no burrowing owl sign at ground squirrel burrows (City of Oakley 2019:4.2-50). City of Oakley (2019) claims that Moore Biological “inspected” the site for burrowing owls, but



**Table 2.** Species reported on eBird (<https://eBird.org>) on or near the proposed project site. Bold text under ‘eBird posts’ indicate the species detected on site by myself or another professional.

Species	Scientific name	Status <sup>1</sup>	City of Oakley occurrence	eBird posts	Covered by CCC HCP
American white pelican	<i>Pelecanus erythrorhynchos</i>	SSC		Nearby	
California brown pelican	<i>Pelacanus occidentalis californicus</i>	SSC1		Nearby	
Double-crested cormorant	<i>Phalacrocorax auritus</i>	TWL		<b>Nearby</b>	
White-faced ibis	<i>Plegadis chihi</i>	TWL		Nearby	
Long-billed curlew	<i>Numenius americanus</i>	TWL		Nearby	
Whimbrel	<i>Numenius phaeopus</i>	BCC		Nearby	
California gull	<i>Larus californicus</i>	TWL		<b>On site</b>	
Caspian tern	<i>Hydroprogne caspia</i>	BCC		Nearby	
Turkey vulture	<i>Cathartes aura</i>	FGC 3503.5		<b>On site</b>	
Osprey	<i>Pandion haliaetus</i>	TWL, FGC 3503.5		Nearby	
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA, BCC, CE		Nearby	
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, BCC, CFP	Low	Nearby	Yes
Red-tailed hawk	<i>Buteo jamaicensis</i>	FGC 3503.5		<b>On site</b>	
Ferruginous hawk	<i>Buteo regalis</i>	FGC 3503.5, TWL		Nearby	
Swainson’s hawk	<i>Buteo swainsoni</i>	BCC, CT, FGC 3503.5	Moderate	Nearby	Yes
Red-shouldered hawk	<i>Buteo lineatus</i>	FGC 3503.5		Nearby	
Sharp-shinned hawk	<i>Accipiter striatus</i>	FGC 3503.5, TWL		Nearby	
Cooper’s hawk	<i>Accipiter cooperi</i>	FGC 3503.5, TWL		Nearby	
Northern harrier	<i>Circus cyaneus</i>	SSC3, FGC 3503.5		<b>Nearby</b>	
White-tailed kite	<i>Elanus leucurus</i>	CFP, TWL, FGC 3503.5	<b>Moderate</b>	Nearby	
American kestrel	<i>Falco sparverius</i>	FGC 3503.5		<b>Nearby</b>	
Merlin	<i>Falco columbarius</i>	FGC 3503.5, TWL		Nearby	
Prairie falcon	<i>Falco mexicanus</i>	FGC 3503.5, TWL		Nearby	
Peregrine falcon	<i>Falco peregrinus</i>	CE, CFP, FGC 3503.5		<b>Nearby</b>	
California black rail	<i>Laterallus jamaicensis</i>	CT, CFP	<b>Low</b>	None	
Burrowing owl	<i>Athene cunicularia</i>	BCC, SSC2, FGC 3503.5	Low	Nearby	Yes

Western screech-owl	<i>Megascops kennicotti</i>	FGC 3503.5		Nearby	
Short-eared owl	<i>Asio flammeus</i>	SSC3, FGC 3503.5		Nearby	
Great-horned owl	<i>Bubo virginianus</i>	FGC 3503.5		Nearby	
Barn owl	<i>Tyto alba</i>	FGC 3503.5		Nearby	
Vaux's swift	<i>Chaetura vauxi</i>	SCC2		Nearby	
Allen's hummingbird	<i>Selasphorus sasin</i>	BCC		Nearby	
Nuttall's woodpecker	<i>Picoides nuttallii</i>	BCC		Nearby	
Willow flycatcher	<i>Empidonax trailii extimus</i>	FE, CE		Nearby	
Bank swallow	<i>Riparia riparia</i>	CT	Unlikely	Nearby	
Oak titmouse	<i>Baeolophus inornatus</i>	BCC		Nearby	
Yellow-billed magpie	<i>Pica nuttalli</i>	BCC		Nearby	
Loggerhead shrike	<i>Lanius ludovicianus</i>	BCC, SSC2	<b>Moderate</b>	Nearby	
California horned lark	<i>Eremophila alpestris</i>	TWL		Nearby	
Yellow warbler	<i>Setophaga petechia</i>	SSC2		Nearby	
Common yellowthroat	<i>Geothlypis trichas sinuosa</i>	SSC3	<b>Low</b>	Nearby	
Yellow-breasted chat	<i>Icteria virens</i>	SSC3		Nearby	
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC2		<b>Regional</b>	
Suisun song sparrow	<i>Melospiza melodia maxillaris</i>	SSC3	Low	<b>Nearby</b>	
Tricolored blackbird	<i>Agelaius tricolor</i>	CE	Low	<b>Nearby</b>	Yes
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	SSC3		<b>Nearby</b>	
Lawrence's goldfinch	<i>Spinus lawrencei</i>	BCC		Nearby	

<sup>1</sup> Listed as FT and FE = federal threatened and endangered BCC = federal Bird Species of Conservation Concern, CT and CE = California threatened and endangered, CFP = California Fully Protected (CDFG Code 3511), FGC 3503.5 = California Department of Fish and Game Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008).

**Table 3.** Occurrence likelihoods of special-status species of terrestrial wildlife at or near the proposed project site,.

Common name	Species name	Status <sup>1</sup>	Occurrence likelihood		Covered by CCC HCP
			City of Oakley	Smallwood	
Pond turtle	<i>Actinemys pallida</i>	SSC	Unlikely	Possible	Yes
Pallid bat	<i>Antrozous pallidus</i>	SSC	Unlikely		
Townsend's big-eared bat	<i>Plecotus t. townsendii</i>	SSC		Possible	Yes
Spotted bat	<i>Euderma maculatum</i>	SSC		Possible	
Western red bat	<i>Lasiurus blossevillii</i>	SSC	Unlikely	Possible	
Hoary bat	<i>Lasiurus cinereus</i>	WBWG Mod		Possible	
Little brown bat	<i>Myotis lucifugus</i>	WBWG Mod		Possible	
Long-legged myotis	<i>Myotis volans</i>	WBWG High		Possible	
Western mastiff bat	<i>Eumops perotis</i>	SSC		Possible	
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	SSC		Possible	
Fringed myotis	<i>Myotis thysanodes</i>	WBWG High		Possible	
Yuma myotis	<i>Myotis yumanensis</i>	WBWG Low-Mod		Possible	
American badger	<i>Taxidea taxus</i>	SSC	Unlikely	Possible	

this characterization is misleading because the surveys did not come anywhere close to meeting the standards of CDFW (2012).

Not discussed in City of Oakley (2019) is the widespread decline of burrowing owls across North America (James and Espie 1997) and within California (Wilkerson and Siegel 2010). Following up on studies begun in 2006 (Smallwood et al. 2009a,b) and 2011 (Smallwood et al. 2013) and continuing through this year, I have also documented a steep decline of burrowing owls within the Altamont Pass Wind Resource Area (APWRA), most substantially within the Contra Costa County portion of the APWRA (Smallwood, unpublished data). Not only has the number of breeding pairs declined, but so has productivity. Among my sampling plots in Contra Costa County, where I had earlier counted up to 33 breeding pairs, I counted a single pair in 2019. These trends do not bode well for conserving burrowing owls in Contra Costa County, regardless of the best of intentions of those implementing the ECCC HCP/NCCP.

Wind turbines certainly took a major toll on burrowing owls (Smallwood et al. 2007), but loss of breeding habitat and wintering habitat is also taking a toll. My year-round surveys for burrowing owls in 2011-2012 revealed that, following the breeding season, adults relocate to areas where breeding pair densities were lowest or non-existent. Open space that many people might not associate with burrowing owls are actually of great importance to burrowing owls over the non-breeding seasons. Over the last several years I have observed hundreds of acres of wintering burrowing owl habitat within Contra Costa County converted to vineyards and residential developments. At the same time, I have noticed an increased assault on ground squirrels across large areas of range. As ground squirrels are abated, burrowing owls lose access to burrows as well as to the mutual predator alarm-calling that burrowing owls depend upon for winter survival and breeding season nest success. In short, the conservation benefits implemented in the ECCC HCP/NCCP are not keeping up with the impacts, so burrowing owls are rapidly declining.

The EIR's conclusion regarding occurrence likelihood of burrowing owls should be founded on appropriate detection surveys (CDFW 2012). Detection surveys have not yet been performed at the project site.

## **Golden Eagle**

I concur with City of Oakley (2019:4-26) that the golden eagle “*demonstrates preference for less urbanized settings,*” and that the species probably no longer nests on the project site. That CNDDDB does not include golden eagle records on the project site is irrelevant, however, as CNDDDB is based on volunteer reporting without the benefit of census or sampling. I have been studying golden eagles in various ways for 20 years in the APWRA. Since 2013 my colleagues and I have tracked about 35 golden eagles using GPS telemetry, and some of those eagles are still flying; I get daily reports of eagle travel paths. All eagles, whether young or old, make long-range trips outside their normal territories for reasons that are important to them but unknown to us. These long-range trips minimize flyover of urbanized and industrialized landscapes, increasingly having

to “thread the needle” over open space to avoid urban sprawl. Some of our long-range trips are northward from the APWRA, traveling right over the project site. Flying over open space likely provides golden eagles foraging opportunities, as well as stopover opportunities, both of which are just as important to breeding success as are finding and defending nest sites. After all, golden eagles cannot successfully breed without surviving the non-breeding season.

Not only is habitat loss adversely affecting golden eagles, but wind turbine collisions (Smallwood and Karas 2009, Smallwood et al. 2017) and the expansion of Los Vaqueros Reservoir (Smallwood et al. 2017) are adversely affecting local golden eagles composing the highest-recorded breeding-pair density in the world. Wind turbines have been killing about 55 golden eagles per year, and now it is estimated that this level of take is unsustainable (Wiens, Pers. Comm.). These specific impacts – wind turbine collisions and the Reservoir expansion -- are recognized in the ECCC HCP/NCCP (Jones & Stokes 2006), but are specifically called out as not covered by the ECCC HCP/NCCP. The EIR needs to be revised in light of these additional impacts and how they bear cumulatively on the loss of stopover and flyover habitat due to the project.

### **Swanson's hawk**

City of Oakley (2019:4-36) concludes that Swanson's hawks will not nest on the project site because the “*Del Antico Basin is surrounded by subdivisions and a vineyard.*” This conclusion is reached right after summarizing Swanson's hawk nest attempts on the project site in 2011, 2012, and 2018, and were seen on site in 2019. In reality, Swanson's hawks will nest in urban environments, so long as they are within one mile of foraging habitat (England et al. 1995). Swanson's hawks disproportionately forage in environments just like those on the project site (Smallwood 1995). The project would permanently remove at least one nest site, and would cause a significant impact on Swanson's hawks' access to forage. The EIR needs to be revised to appropriately address these impacts, and how they would contribute cumulatively to ongoing wind turbine impacts for which the ECCC HCP/NCCP does not cover.

The EIR needs to be revised so that it is informed by detection surveys that meet the standards of CDFW (1994).

### **Wildlife Movement**

According to City of Oakley (2019:4.2-41), “...*significant wildlife movement corridors do not exist within the land area adjacent to the project site, including the off-site utility improvement areas.*” City of Oakley relies on a false CEQA standard, however. The CEQA standard is whether a project will “*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors...*” The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a corridor is a human construct more than it is a natural channelization of wildlife movement (Smallwood 2015). Humans construct

corridors to mitigate the impacts of habitat fragmentation, so corridors are mischaracterized in the DEIR.

I concur with City of Oakley that wildlife on the move tend to avoid urbanized areas, but in my experience volant wildlife target open spaces for travel paths, even if they have to fly over some urbanized areas to do so. Having co-investigated an ongoing golden eagle telemetry study, I have observed millions of recorded positions of 35 golden eagles captured near the project site, and which have flown all over the place from Canada to Mexico. My colleagues and I have many times noticed eagle flight paths minimizing flights over anthropogenic environments while targeting open spaces such as the project site. While at the project site, I also noticed (and photographed) many thousands of blackbirds of multiple species flying over the project site; they did not fly over housing developments or power plants, but rather over the available open spaces including the project site. Among these thousands of blackbirds flying over the project site were special-status species including yellow-headed blackbirds (California Bird Species of Special Concern priority 3) and tricolored blackbirds (California Endangered).

The project site needs to be analyzed for potential impacts on wildlife movement in the region. Wildlife moving across a region often must traverse urban or industrial environments to complete their migrations or their dispersal from natal territories. When crossing anthropogenic environments, wildlife stopover on available open spaces and trees. Because industrialization and urban and commercial sprawl has eliminated natural surfaces from most of the landscape around the site of the proposed project, the project site likely has emerged as critically important stopover habitat for migratory wildlife (Runge et al. 2014, Taylor et al. 2011), and as staging habitat (Warnock 2010). Many species of wildlife likely use the proposed project site for movement across the area, including those species I saw flying over it and residing on it (Table 1), and those many special-status species of birds seen in the area of the project and reported on eBird (Table 2). The special-status species of bats listed in Table 3 likely also use the project site as stopover and roosting habitat. The project would further cut wildlife off from stopover and staging habitat, and would therefore interfere with wildlife movement in the region. The DEIR should be revised to adequately address the project's potential impacts on habitat fragmentation and wildlife movement.

### **Traffic Impacts on Wildlife**

According to City of Oakley (2019), the project as proposed would generate about 4,292 daily trips. These trips will kill wildlife. A fundamental shortfall of City of Oakley (2019) is its failure to analyze the impacts of the project's added road traffic on special-status species of wildlife, including species such as western pond turtle (*Actinemys pallida*) and American badger (*Taxidea taxus*). Many animals that would be killed by the traffic generated from this project would be located far from the project's construction footprint; they would be crossing roads traversed from cars and trucks originating from or headed toward the project site. The project's impacts on wildlife will reach as far from the project as cars and trucks travel to or from the project site.

According to City of Oakley, 7% of the trips, or about 300 new trips per day, would head north on Highway 160, a route along which I have been recording wildlife fatalities for longer than three years. I have yet to process all of my hundreds of fatality records, but during the first 10 months of my counts, I counted 5 gopher snakes, 6 opossums, 1 river otter, 13 striped skunks, 10 raccoons, 2 muskrats, 2 ground squirrels, 3 desert cottontails, 1 great egret, 1 ring-necked pheasant, 5 red-tailed hawks, 8 barn owls, 1 western screech-owl, 1 American crow, and 2 red-winged blackbirds. City of Oakley (2019) estimates that 17% of the trips, or about 730 new trips per day, would head south along Highway 4. My traffic mortality counts along Highway 4 and Vasco Road to Livermore include 6 gopher snakes, 2 opossums, 17 raccoons, 6 American badgers, 19 striped skunks, 3 coyotes, 1 gray fox, 1 bobcat, 1 pocket gopher, 7 ground squirrels, 22 desert cottontails, 1 black-tailed deer, 1 common poorwill, 1 gull, 1 osprey, 4 red-tailed hawks, 1 northern harrier, 7 barn owls, 2 rock pigeons, 2 American crows, and 1 red-winged blackbird. Not only will these fatality counts increase substantially when I process the last 27 months of surveys, but their adjustments for the fatalities I did not detect will result in very high estimated fatality rates based on existing road traffic. (Adjustments will be larger for the smaller-bodied species, which are easier for scavengers to remove without leaving a trace of evidence, and which are easier for me to miss while driving along the road.) Adding 1,030 new trips per day north-south along Highways 4 and 160, and considering that many of these new trips will be made by trucks, the fatality rates will increase substantially.

An example of how the fatality rates are estimated from counts of fatalities includes the following, based on a study along the truck route from the proposed project. A recent study of traffic-caused wildlife mortality along a 2.5 mile stretch of Vasco Road in Contra Costa County, California, revealed 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needed to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study right next to Vasco Road (Brown et al. 2016). The Brown et al. (2016) adjustment factors were similar to those for carcass persistence of road fatalities (Santos et al. 2011). Applying searcher detection rates estimated from carcass detection trials performed at a wind energy project immediately adjacent to this same stretch of road (Brown et al. 2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number translates to a rate of 3,900 wild animals per mile per year killed along 2.5 miles of road in 1.25 years. In terms comparable to national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by project would similarly result in intense local impacts on wildlife.

Vehicle collisions have accounted for the deaths of many thousands of reptile, amphibian, mammal, bird, and arthropod fauna, and the impacts have often been found

to be significant at the population level (Forman et al. 2003). Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). It is possible that project-related traffic impacts will far exceed the impacts of land conversion to commercial use. But not one word of traffic-related impacts appears in SWAIM (2018) or City of Fairfield (2019) – a gross shortfall of the CEQA review. Across North America, traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

Many thousands of roadkill wildlife incidents have been reported to the UC Davis Road Ecology Center (Shilling et al. 2017). In 2017, one of the major hotspots of road-killed wildlife overlaps the project site (Shilling et al. 2017). In fact, the wildlife roadkill hotspot in the project area was found to be statistically highly significant (see Figure 5 of Shilling et al. 2017). The costs to drivers is also high (Shilling et al. 2017). The EIR needs to be revised to appropriately assess wildlife mortality that will be caused by increased traffic on existing roadways, and it should provide mitigation measures.

Wildlife roadkill is not randomly distributed, so can be predicted. Causal factors include types of roadway, human population density, and temperature (Chen and Wu 2014), as well as time of day and adjacency and extent of vegetation cover (Chen and Wu 2014, Bartonička et al. 2018), and intersections with streams and riparian vegetation (Bartonička et al. 2018). For example, species of mammalian Carnivora are killed by vehicle traffic within 0.1 miles of stream crossings >40 times other than expected (K. S. Smallwood, 1989-2018 unpublished data). These factors also point the way toward mitigation measures, which should be formulated in a revised EIR.

Increased road mortality of wildlife from project-generated vehicle trips is specifically not covered by the ECCC HCP/NCCP (Jones & Stokes 2006:4-25). The EIR needs to be revised to address this significant impact.

## **CUMULATIVE IMPACTS**

According to Jones & Stokes (2006:4-25), “*Continued use of existing rural roads (i.e., those not covered by the Plan) will contribute to a cumulative impact on these species through continued mortality and injury. The magnitude of this cumulative impact is unknown.*” The project would contribute directly to traffic impacts on wildlife on local roads, and would therefore contribute cumulatively to these impacts. The EIR needs to be revised to address these impacts.

Earlier I provided preliminary counts of wildlife killed by existing traffic on Highways 4 and 160. Along the anticipated trucking route from the project site, Mendelsohn et al. (2009) over a brief survey time also recorded traffic-caused mortality of 120 California red-legged frogs, 50 California tiger salamanders, 2 burrowing owls, 5 American badgers, and a prairie falcon. Three of these special-status species were not considered



by City of Oakley to be potentially affected by the project, but that was only because City of Oakley only considered impacts within the building footprints and not along the truck traffic routes. The cumulative effects analysis related to biological resources needs to be extended to the project's traffic routes, and it needs to consider that the ECCC HCP/NCCP does not cover these impacts.

## **MITIGATION MEASURES**

### **Mitigation Measure 4.2-1(a): Burrowing Owl Mitigation Fee**

According to City of Oakley (2019:4.2-512), *“The proposed project’s participation in the ECCC HCP/NCCP would provide a mechanism to adequately mitigate impacts to special-status species within the off-site improvement areas and the portion of the project site included in the ECCC HCP/NCCP Permit Area.”* Based on what I have observed over the past decade in east Contra Costa County, and despite my admiration for those implementing the ECCC HCP/NCCP, I assert that City of Oakley needs to prove its above-quoted conclusion. I have observed burrowing owls declining rapidly in number and productivity despite best efforts of the ECCC HCP/NCCP. The same trend is underway in Santa Clara Valley despite best efforts of the Santa Clara Valley HCP. And the same trend is reaching its undesired conclusion in Yolo County, where owls are supposed to be conserved by the Yolo County HCP. Conservation measures in these HCPs are obviously failing to conserve burrowing owls.

It is insufficient to simply pay the ECCC HCP/NCCP mitigation fee. I recommend that City of Oakley also follows the guidelines of CDFW (2012).

### **Mitigation Measure 4.2-1(b, c): Burrowing Owl Preconstruction Surveys**

Preconstruction survey are not detection surveys. Preconstruction surveys would detect only the most readily detectable nest sites, and the rest would be destroyed by the project. Detection surveys are needed to either detect burrowing owls or support a determination of absence; preconstruction surveys cannot do this. Detection surveys are needed to estimate project impacts, and to inform the formulation of appropriate mitigation. They are also needed to inform biologists about where preconstruction surveys would be most effective. Performing preconstruction surveys without having first performed detection surveys would be inconsistent with CDFW (2012).

### **Mitigation Measure 4.2-1(d) Avoidance, Minimization, and Construction Monitoring**

Passive relocation would be inconsistent with CDFW (2012), which regards this practice as potential harm to burrowing owls.

### **Mitigation Measure 4.2-2(a): Swanson's hawk Mitigation Fee**

As with burrowing owls, City of Oakley should prove its assertion that payment of the ECCC HCP/NCCP mitigation fee would adequately conserve Swanson's hawks. Where is the evidence that the ECCC HCP/NCCP is indeed conserving Swanson's hawks?

### **Mitigation Measure 4.2-3(a): Golden Eagle Mitigation Fee**

As above, City of Oakley ought to provide evidence that the ECCC HCP/NCCP is succeeding at conserving golden eagles. I know that those implementing the ECCC HCP/NCCP are trying to conserve eagles, as I have performed some of the research to that end, but I also feel that golden eagles are losing ground in Contra Costa County as habitat diminishes, squirrels are disappearing from large areas, and wind turbines are annually killing too many local eagles.

### **Mitigation Measure 4.2-4(a, b): Preconstruction Surveys for Nesting Birds**

Preconstruction surveys are proposed for nesting birds, as they ought to be. However, a revised EIR also ought to put these surveys into perspective. With thousands of bird nests on site during the breeding season, and with the majority of these nests having been constructed for concealment from predators, preconstruction surveys are assured to detect a tiny fraction of bird nests. Such surveys would save very few of the nesting birds in peril.

Furthermore, preconstruction surveys cannot estimate nor offset the permanent loss of breeding habitat and all of the productive capacity lost with that habitat (see earlier comment on this impact).

### **Mitigation Measure 4.2-7: Wildlife Movement**

Due to its flawed interpretation of both the CEQA standard and the scientific definition of "corridor," City of Oakley erroneously concludes no mitigation is necessary for project impacts on wildlife movement in the region. Many special-status species of wildlife use the project site as stopover, staging, and flyover habitat. Losing access to this site will increase the distances between remaining open spaces and will increase the energetic costs of wildlife movement in the region. The EIR needs to be revised to address this type of impact and how it should be mitigated.

### **Mitigation Measure 4.2-8: Cumulative Impacts**

City of Oakley (2019) concludes that payment of the ECCC HCP/NCCP mitigation fee will adequately mitigate the project's contributions of cumulative impacts, based on the flawed assumption that the ECCC HCP/NCCP was designed to cover cumulative impacts. In fact, the ECCC HCP/NCCP specifically identified ongoing cumulative impacts that it does not cover, including road mortality, wind turbine collisions, and Vaquero Reservoir expansion. Road mortality is one of the two principal types of

impact that will be caused by the project, the other consisting of habitat loss. It is therefore essential that the EIR be revised to address how its traffic-generated road mortality will be mitigated.

### **Additional Comments on Mitigation**

Only 6 (10%) of the special-status species in Tables 2 and 3 are covered by the ECCC HCP/NCCP, meaning that payment of ECCC HCP/NCCP mitigation fees would fail to mitigate project impacts to 90% of the potentially occurring special-status species of vertebrate wildlife listed in the Tables. I saw a peregrine falcon on site, as well as a northern harrier and grasshopper sparrows among others. Records on eBird include detections of numerous special-status species on and nearby the project site, and yet none of these have any mitigation under the plan put forth by City of Oakley (2019). And as commented earlier, down-road special-status species not listed in Tables 2 and 3, such as California red-legged frog and California tiger salamander, would also lack any form of mitigation under the proposed plan. Compensatory mitigation above and beyond the ECCC HCP/NCCP needs to be formulated and committed for all these other species.

Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can partly be directed toward funding of research to identify fatality patterns and effective impact reduction measures. Certain impact reduction measures are known already, and those should be implemented where they would be most effective. One such measure would be reduced speed limits along strategic reaches of road, and another would be construction of wildlife overcrossings or undercrossings.

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the injuries will likely be caused by the increased trip generation of cars and trucks. Many animals need treatment caused by collision injuries and an increasing number appear to be injured by the turbulence of passing trucks.

Thank you for your attention,



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Shawn Smallwood, Ph.D.

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## Curriculum Vitae

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Born May 3, 1963 in  
Sacramento, California.  
Married, father of two.

### Ecologist

#### Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

#### Education

Ph.D. Ecology, University of California, Davis. September 1990.  
M.S. Ecology, University of California, Davis. June 1987.  
B.S. Anthropology, University of California, Davis. June 1985.  
Corcoran High School, Corcoran, California. June 1981.

#### Experience

- 477 professional publications, including:
  - 81 peer reviewed publications
  - 24 in non-reviewed proceedings
  - 370 reports, declarations, posters and book reviews
  - 8 in mass media outlets
  - 87 public presentations of research results at meetings
  - Reviewed many professional papers and reports
  - Testified in 4 court cases.

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The

five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

### **Peer Reviewed Publications**

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# Exhibit B



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November 22, 2019

Paige Fennie  
Lozeau | Drury LLP  
1939 Harrison Street, Suite 150  
Oakland, CA 94612

**Subject: Comments on the Oakley Logistics Center Project (SCH No. 2019029113)**

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Dear Ms. Fennie,

We have reviewed the October 2019 (“DEIR”) for the Oakley Logistics Center Project (“Project”) located in the City of Oakley (“City”). The Project proposes to construct 1,985,304 square feet of light industrial space and 1,358 parking spaces on the 143.3-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project’s Air Quality, Health Risk, and Greenhouse Gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated DEIR should be prepared to adequately assess and mitigate the potential air quality and health risk impacts that the project may have on the surrounding environment.

## Air Quality

### Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR’s air quality analysis relies on emissions calculated with CalEEMod.2016.3.2.<sup>1</sup> CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (CEQA) requires that such changes be justified by substantial evidence.<sup>2</sup> Once all of the values are inputted into the model, the Project’s

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<sup>1</sup> CAPCOA (November 2017) CalEEMod User’s Guide, [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4).

<sup>2</sup> CAPCOA (November 2017) CalEEMod User’s Guide, [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 1, 9.

construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.<sup>3</sup>

Review of the Project's air modeling demonstrates that the DEIR underestimates emissions associated with Project activities. As previously stated, the DEIR's air quality analysis relies on air pollutant emissions calculated using CalEEMod. When reviewing the Project's CalEEMod output files, provided as Appendix D to the DEIR, we found that several of the values inputted into the model were not consistent with information disclosed in the DEIR. As a result, the Project's construction and operational emissions are underestimated. An updated EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

*Unsubstantiated Reduction in Carbon Intensity Factor*

Review of the Project's CalEEMod output files demonstrates that the default value for the CO<sub>2</sub> intensity factor was manually changed without justification. As a result, the Project's operational emissions may be underestimated.

Review of the Project's CalEEMod output files demonstrates that the model's CO<sub>2</sub> intensity factor was artificially reduced from 641.35 to 245.88 lb/MWhr (see excerpt below) (Appendix D, pp. 458, 511, 559, 620, 674, 723, 961, 1012, 1058, 1116, 1158, 1195).

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	641.35	245.88

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>4</sup> According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is "PG&E calculator" (Appendix D, pp. 457, 510, 558, 618, 672, 721, 782, 958, 1009, 1055, 1113, 1155, 1192). Furthermore, the DEIR states that the change is justified based on "PG&E's *anticipated progress* towards the State RPS *goal* by 2030" (emphasis) (p. 4.1-29). Furthermore, just because the state *has* this goal does not mean that it will actually be achieved, and the proposed Project cannot claim that the RPS *goal* will result in a reduction of the Project's emissions. Rather, the DEIR should provide substantial justification that this goal will be reached. As a result, we cannot verify the model's use of the reduced CO<sub>2</sub> intensity factor and emissions may be underestimated.

<sup>3</sup> CAPCOA (November 2017) CalEEMod User's Guide, [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), fn 1, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

<sup>4</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9



### Failure to Account for Total Amount of Material Import/Export

Review of the Project’s CalEEMod output files demonstrates that the DEIR’s model failed to include the total amount of material export expected to occur during the grading phase of construction. As a result, the Project’s construction-related emissions are underestimated.

According to the DEIR, “If import/export is necessary it will likely be less than 25,000 cubic yards of material” (p. 3-16). Despite the DEIR’s statement that import/export “will likely be less than” 25,000 cubic yards of material, 25,000 cubic yards of import or export should have been modeled in order to provide the most conservative analysis, as is required by CEQA. However, review of the Project’s CalEEMod output files demonstrates that only 20 cubic yards of material export were modeled in the CalEEMod for off-site improvements (see excerpt below) (Appendix D, pp. 847, 865, 878, 900, 919, 934).

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialExported	0.00	20.00

As you can see in the excerpt above, the model underestimates the amount of material export by 20,000 cubic yards of material. This underestimation presents a significant issue, as the inclusion of the entire amount of material export within the model is necessary to calculate emissions produced from material movement, including truck loading and unloading, and additional hauling truck trips.<sup>5</sup> As a result, emissions generated during Project construction may be underestimated by the model.

### Incorrectly Assumes Tier 4 Final Equipment

According to the DEIR, the Project will implement Mitigation Measure 4.1-1(a), which states,

“Prior to issuance of a grading permit, the project applicant shall show on the grading plans via notation that the contractor shall ensure that all off-road heavy-duty diesel-powered equipment (e.g., rubber tired dozers, excavators, graders, scrapers, pavers, paving equipment, and cranes) to be used for each phase of construction of the project (i.e., owned, leased, and subcontractor vehicles) shall meet California Air Resources Board (CARB) Tier 4 emissions standards or cleaner” (Table 2-1, p. 2-6).

As the above excerpt demonstrates, Mitigation Measure 4.1-1(a) does not specify whether the Project would implement Tier 4 Interim or Tier 4 Final engines. However, review of the Project’s CalEEMod output files demonstrates that the model assumed that equipment would include the more efficient Tier 4 *Final* engines (see excerpt below) (Appendix D, pp. 619, 673, 722, 900, 919, 934, 959, 1010, 1056, 1114, 1156, 1193).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

<sup>5</sup> CalEEMod User’s Guide, available at: [http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01\\_user-39-s-guide2016-3-1.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2), p. 3, 26.

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

As can be seen in the excerpt above, the CalEEMod model assumes that the Project’s construction equipment would be equipped with Tier 4 *Final* engines. This presents a significant issue, as the DEIR does not commit to the use of the more efficient Tier 4 Final equipment.

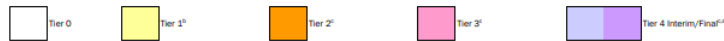
The United States Environmental Protection Agency (U.S. EPA) has slowly adopted more stringent standards to lower the emissions from off-road construction equipment since 1994. Since that time, Tier 1, Tier 2, Tier 3, Tier 4 Interim, and Tier 4 Final construction equipment has been phased in over time. Tier 4 Final represents the cleanest burning equipment and therefore has the lowest emissions compared to other tiers, including Tier 4 Interim equipment (see excerpt below):<sup>6</sup>

<sup>6</sup> “San Francisco Clean Construction Ordinance Implementation Guide for San Francisco Public Projects.” August 2015, available at: [https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San\\_Francisco\\_Clean\\_Construction\\_Ordinance\\_2015.pdf](https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf), p.

Maximum horsepower	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+	
25shp<50																						
50shp<75																						
75shp<100																						
100shp<175																						
175shp<300																						
300shp<600																						
600shp<750																						
Mobile Machines > 750hp																						
750hp<GEN <1200hp																						
GEN>1200 hp																						

Source: derived from California Air Resources Board, [http://www.arb.ca.gov/msprog/ordiesel/documents/Off-Road\\_Diesel\\_Std.xls](http://www.arb.ca.gov/msprog/ordiesel/documents/Off-Road_Diesel_Std.xls).

- a) When ARB and USEPA standards differ, the standards shown here represent the more stringent of the two.
- b) Standards given for all sizes of Tier 1 engines are hydrocarbons/oxides of nitrogen (NOx)/carbon monoxide (CO)/particulate matter (PM) in grams per brakehorsepower per hour (g/bhp-hr).
- c) Standards given for all sizes of Tier 2 and Tier 3 engines, and Tier 4 engines below 75 horsepower are non-methane hydrocarbons (NMHC)+NOx/CO/PM in g/bhp-hr.
- d) Standards given for Tier 4 engines above 75 horsepower are NMHC/NOx/CO/PM in g/bhp-hr.
- e) Engine families in this power category may alternately meet Tier 3 PM standards (0.30 g/bhp-hr) from 2008-2011 in exchange for introducing final PM standards in 2012.
- f) The implementation schedule shown is the three-year alternate NOx approach. Other schedules are available.
- g) Certain manufacturers have agreed to comply with these standards by 2005.

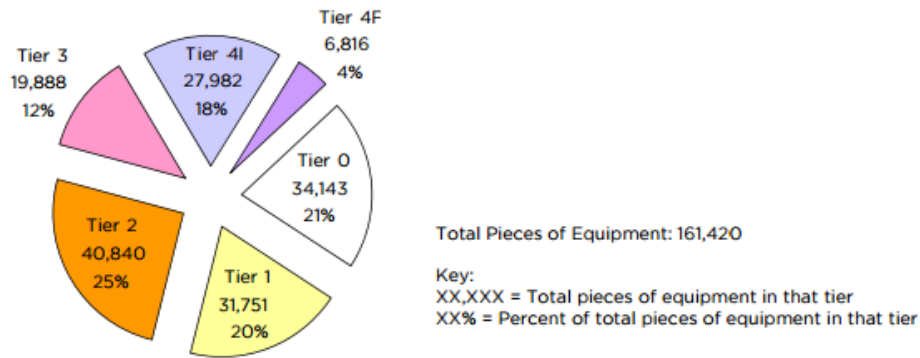


As demonstrated in the figure above, Tier 4 Interim and Tier 3 equipment have greater emission levels than Tier 4 Final equipment. Therefore, by modeling construction emissions assuming nearly a full Tier 4 Final equipment fleet, the DEIR failed to account for higher emissions that may occur as a result of the use of Tier 3 or Tier 4 Interim equipment. Since Mitigation Measure 4.1-1(a) fails to specify whether the Project will use Tier 4 Interim or Tier 4 Final equipment, it is incorrect to model emissions assuming that the more efficient Tier 4 Final equipment will be used. Until the DEIR specifies that the Project will actually use Tier 4 Final engines during all phases of construction, and not Tier 4 Interim equipment, the Project’s potential impacts should not be evaluated assuming the use of this cleaner burning equipment.

Furthermore, review of the DEIR demonstrates that the DEIR failed to evaluate the feasibility in obtaining Tier 4 equipment. Due to the limited amount of Tier 4, especially Tier 4 Final, equipment available, the DEIR should have assessed the feasibility in obtaining equipment with Tier 4 engines (see excerpt below).<sup>7</sup>

<sup>7</sup> *Ibid.*

Figure 4: 2014 Statewide All Fleet Sizes (Pieces of Equipment)



As demonstrated in the figure above, the Tier 4 Final and Interim equipment only account for 4% and 18%, respectively, of all off-road equipment currently available in California. Thus, emissions are modeled assuming that the Project will be able to obtain Tier 4 Final equipment even though this equipment only accounts for 4% of available off-road equipment currently available in California. As a result, the model represents the best-case scenario even though obtaining these types of equipment may not be feasible.

Due to the limited availability of Tier 4 Interim and Final equipment, the DEIR should have evaluated the feasibility of obtaining Tier 4 equipment. As a result, construction emissions may be underestimated.

### *Failure to Include All Demolition*

Review of the Project’s CalEEMod output files demonstrates that the air model failed to consider the total amount of demolition required for Project construction. As a result, the Project’s construction emissions are underestimated.

According to the DEIR,

“The first phase of construction would be the only one to include demolition and would result in approximately 10,000 sf of building material being demolished” (p. 4.1-28).

However, this amount of demolition is incorrect. Further review of the DEIR demonstrates the Project would “include demolition of the existing structure” (p. 2-1). The two existing buildings on the Project site are approximately 11,778 square feet and 2,640 square feet, totaling approximately 14,418 square feet (p. 3-4). Thus, the model should have included 14,418 square feet of demolition. According to the CalEEMod User’s Guide, “Haul trips are based on the amount of material that is demolished, imported or exported assuming a truck can handle 16 cubic yards of material.”<sup>8</sup> Therefore, the air model calculates a default number of hauling trips based upon the amount of demolition material inputted into the model. If the correct value of 14,481 square feet of demolition had been inputted into the model, the default number of hauling trips for demolition would have been 66. However, review of the Project’s CalEEMod output files demonstrates that the model calculated a default number of hauling trips for

<sup>8</sup> [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 14

demolition of 45 (see excerpt below) (Appendix D, pp. 465, 517, 565, 627, 680, 729, 790, 968, 1018, 1064, 1122, 1163).

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	45.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

As you can see in the excerpt above, the model calculated a default number of 45 demolition hauling trips, which demonstrates that the model failed to include the correct amount of demolition required for Project construction. The total amount of demolition material is used by CalEEMod to determine emissions associated with this phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.<sup>9</sup> Therefore, by failing to account for the demolition of the existing structures, fugitive dust emissions, emissions from site removal, and exhaust emissions from hauling trucks traveling to and from the site are underestimated. As a result, we find the DEIR’s CalEEMod model to be inaccurate and thus, should not be relied upon to determine Project significance.

### *Unsubstantiated Mobile Mitigation Measures*

Review of the Project’s CalEEMod output files demonstrates that two mobile mitigation measures were included in the model without proper justification.

The Project’s CalEEMod output files reveal that the model includes unsubstantiated mitigation measures, including Increase Transit Accessibility and Improve Pedestrian Network (see excerpt below) (Appendix D, pp. 497, 550, 598, 713, 659, 762, 822, 996, 1047, 1093, 1142, 1184, 1221).

## **4.1 Mitigation Measures Mobile**

### **Increase Transit Accessibility**

### **Improve Pedestrian Network**

As you can see in the above excerpt, the air model assumed that the Project would increase transit accessibility and improve pedestrian network. As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>10</sup> According to the “User Entered Comments & Non-

<sup>9</sup> CalEEMod User Guide, Appendix A, p. 11, available at: <http://www.caleemod.com/>

<sup>10</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

Default Data” table the justification provided for these mitigation measures is “applicant provided.” (Appendix D, pp. 457, 510, 558, 618, 672, 721, 782, 958, 1009, 1055, 1113, 1155). The DEIR address these measures in Mitigation Measure 4.1-5(c), stating:

“Mitigation Measures may include, but would not be limited to, BAAQMD’s recommended mitigation measures such as the following:

- Orient buildings to maximize passive solar heating;
- Improve bike and pedestrian network (complete sidewalks, connection to adjacent areas, connection to bike network, etc.);
- Implement bicycle and pedestrian facilities such as bike lanes, routes, and paths, bike parking, sidewalks, and benches;
- Dedicate land on-site to facilitate future connections with the Big Break Regional Trail;
- Promote ridesharing, transit, bicycling, and walking for work trips through dedication of preferential parking spaces, provision of onsite bicycle parking, provision of end-of-trip facilities such as bicycle lockers and on-site showers” (p. 4.1-50).

However, the above excerpt demonstrates that the Project does not actually commit to the implementation of these measures. Mitigation Measure 4.1-5(c) simply states that “Mitigation Measures *may* include, but would not be limited to, BAAQMD’s recommended mitigation measures such as the following” (emphasis added). Thus, the Project may include increasing transit accessibility and improving pedestrian network, but the implementation of these measures is not guaranteed. As a result, the implementation of these mitigation measures cannot be verified, and the model should not be relied upon to determine Project significance.

### *Unsubstantiated Energy Mitigation Measure*

Review of the Project’s CalEEMod output files reveals that the model included an energy mitigation measure without sufficient justification, and as a result, the Project’s operational emissions may be underestimated.

The Project’s CalEEMod output files demonstrate that the Project’s emissions were modeled with an unsubstantiated energy mitigation measure (see excerpt below) (Appendix D, pp. 499, 551, 599, 661, 714, 763, 824, 998, 1048, 1094, 1144, 1185, 1222).

## **5.1 Mitigation Measures Energy**

### **Exceed Title 24**

As you can see in the excerpt above, the Project’s operational emissions were modeled assuming the Project would exceed Title 24 Standards. As previously stated, the CalEEMod User’s Guide requires that any non-default values inputted must be justified.<sup>11</sup> However, the “User Entered Comments & Non-Default Data” table fails to substantiate or address the use of this mitigation measure. Review of the

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<sup>11</sup> CAPCOA (November 2017) CalEEMod User’s Guide, [http://www.agmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.agmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 7, 13.

DEIR also demonstrates that the Project fails to demonstrate any sort of explanation or justification for the implementation of this mitigation measure in the model. As a result, the application of this mitigation measure is unsubstantiated and the model may underestimate the Project’s operational emissions.

### Failure to Implement All Feasible Mitigation to Reduce Emissions

The DEIR determines that the Project’s VOC and NOx emissions would exceed thresholds set forth by the BAAQMD (p. 4.1-31, Table 4.1-8). As a result, the Project proposes a few mitigation measures to reduce the Project’s VOC and NOx emissions (p. 4.1-31). However, even after implementing mitigation, the DEIR concludes that the Project’s construction NOx emissions would still be significant (see table below) (p. 4.1-31).

<b>Pollutant</b>	<b>On-Site Project Emissions</b>	<b>Off-Site Project Emissions</b>	<b>Total Project Emissions</b>	<b>Threshold of Significance</b>	<b>Exceeds Threshold?</b>
ROG	7.53	0.62	8.15	54	NO
NO <sub>x</sub>	56.74	2.45	59.19	54	YES
PM <sub>10</sub> (exhaust)	0.45	0.07	0.52	82	NO
PM <sub>10</sub> (fugitive)	20.53	12.52	33.05	None	N/A
PM <sub>2.5</sub> (exhaust)	0.43	0.07	0.50	54	NO
PM <sub>2.5</sub> (fugitive)	7.05	6.70	13.75	None	N/A

*Source: CalEEMod, September and October 2019 (see Appendix D).*

Thus, the DEIR concludes that even with mitigation, the Project’s NOx emissions would still be significant. Specifically, the DEIR states,

“Implementation of the following mitigation measures would reduce the construction related emissions of ROG and NOX to the maximum extent practicable. The reductions in ROG resulting from the following mitigation measures would be sufficient to reduce ROG below the BAAQMD’s thresholds. However, as shown in Table 4.1-8 NOX would remain in excess of the applicable threshold of significance of 54 lbs/day. Additional feasible mitigation does not exist to reduce the NOX emissions to below the applicable threshold of significance. Thus, despite implementation of the following mitigation measure, the impact would remain *significant and unavoidable*” (p. 4.1-31).

However, while we agree that the Project would result in a significant construction NOx impact, the DEIR’s conclusion that these impacts are “significant and unavoidable” is incorrect. According to the California Environmental Quality Act (CEQA),

“CEQA requires Lead Agencies to mitigate or avoid significant environmental impacts associated with discretionary projects. Environmental documents for projects that have any significant environmental impacts must identify all feasible mitigation measures or alternatives to reduce the impacts below a level of significance. If after the identification of all feasible mitigation



measures, a project is still deemed to have significant environmental impacts, the Lead Agency can approve a project, but must adopt a Statement of Overriding Consideration to explain why further mitigation measures are not feasible and why approval of a project with significant unavoidable impacts is warranted.”<sup>12</sup>

As you can see, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation is considered. Review of the Project’s proposed mitigation measures, however, demonstrates that not all feasible mitigation measures are being implemented. Therefore, the DEIR’s conclusion that impacts are significant and unavoidable is unsubstantiated. As a result, additional mitigation measures should be identified and incorporated, such as those suggested in the section of this letter titled “Feasible Mitigation Measures Available to Reduce Construction Emissions,”<sup>13</sup> in order to reduce the Project’s air quality impacts to the maximum extent possible. Until all feasible mitigation is reviewed and incorporated into the Project’s design, impacts from operational NOx cannot be considered significant and unavoidable.

### Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The DEIR concludes that the Project’s health risk impacts would be less than significant without conducting a quantified health risk assessment (HRA) for the Project’s construction and operational emissions to nearby, existing sensitive receptors. Specifically, the DEIR states,

“Construction-related emissions would be temporary, intermittent throughout the day, spread over the project site, and regulated. In addition, DPM emitted from heavy-duty diesel vehicles during project operations would be spread over the project site and would occur outside of the CARB’s recommended separation distance from the nearest sensitive receptor. However, should operations of Building 1 involve the use of more than 40 trucks equipped with TRUs each day, idling TRUs could result in substantial emissions of DPM, which could affect the nearest sensitive receptors. Thus, the proposed project would result in a **potentially significant** impact associated with exposure of sensitive receptors to substantial levels of pollutant concentrations” (p. 4.1-40).

The DEIR goes on to state,

“Implementation of the following mitigation measures would reduce the need for TRUs to be operated within the project site. Reducing the operation of TRUs would result in a reduction in the amount of DPM emitted at loading docks within the project site, which would reduce the likelihood of any nearby sensitive receptors being exposed to substantial concentrations of pollutants. Accordingly, with implementation of the following mitigation measure, the impact would be less than significant” (p. 4.1-40).

In regards to an operational HRA, the DEIR states,

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<sup>12</sup> [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf), p. 115 of 125

<sup>13</sup> See section titled “Feasible Mitigation Measures Available to Reduce Construction Emissions” on p. 21 of this comment letter. These measures would effectively reduce construction-related NOx, PM10, and PM2.5 emissions.



“Consequently, emissions from the majority of on-site drive aisles and loading docks would be sufficiently separated from nearby sensitive receptors to ensure that nearby receptors would not be exposed to excess concentrations of DPM” (p. 4.1-37).

The DEIR goes on to state,

“[T]he 1,100 daily trips associated with Building 1 would likely be split between all of the available access points, and, thus, the majority of trips related to operations at Building 1 would likely occur at distances in excess of 1,000 feet from the nearest receptor” (p. 4.1-38).

However, these justifications and subsequent less than significant impact finding are incorrect.

First, the DEIR’s conclusion that impacts would be less than significant as a result of mitigation measures is unsubstantiated. Without any sort of quantified analysis of the mitigation measures and their associated reductions, the DEIR cannot claim less than significant impacts simply based on mitigation measures. Until the DEIR adequately evaluates and quantifies the Project’s health risk impacts including the implementation of these mitigation measures, the less than significant health risk conclusion is unsubstantiated and cannot be relied upon.

Furthermore, stating that “emissions would be temporary, intermittent throughout the day, spread over the project site, and regulated” does not justify the omission of a quantified construction HRA. Similarly, stating that loading docks would be “sufficiently separated from nearby sensitive receptors” does not justify the omission of a quantified operational HRA. By failing to prepare a construction or an operational HRA for existing sensitive receptors, the DEIR is inconsistent with recommendations set forth by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations for health risk assessments in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.<sup>14</sup> This guidance document describes the types of projects that warrant the preparation of a health risk assessment. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over an approximately 50-month construction period (p. 4.2-17). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.<sup>15</sup> Therefore, per OEHHA guidelines, health risk impacts from Project construction should have been evaluated by the DEIR. Furthermore, once construction of the Project is complete, the Project will operate for a long period of time. During operation, the Project will generate approximately 4,292 daily vehicle trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to emissions (p. 4.4-20, Table 4.4-4). The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to

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<sup>14</sup> “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html)

<sup>15</sup> “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/2015/2015GuidanceManual.pdf](http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf), p. 8-18

estimate individual cancer risk for the maximally exposed individual resident (MEIR).<sup>16</sup> Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risks from Project operation should have also been evaluated by the DEIR, as a 30-year exposure duration vastly exceeds the 2-month and 6-month requirements set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, an assessment of health risks posed to nearby sensitive receptors as a result of construction and operation should be included in a revised CEQA evaluation for the Project.

### Screening-Level Assessment Indicates Significant Impact

In an effort to demonstrate the potential risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact not previously identified by the DEIR.

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening level air quality dispersion model.<sup>17</sup> The model replaced SCREEN3, and AERSCREEN is included in the OEHHA<sup>18</sup> and the California Air Pollution Control Officers Associated (CAPCOA)<sup>19</sup> guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM<sub>10</sub> exhaust estimates from the SWAPE annual CalEEMod output files. Review of the Project site on Google Earth demonstrates that the closest sensitive receptor is a residence approximately 400 meters south of the Project site. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The Project's construction CalEEMod output files indicate that construction activities will generate approximately 543 pounds of diesel particulate matter (DPM) over the 1,289-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

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<sup>16</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/2015/2015GuidanceManual.pdf](http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf), p. 8-6, 8-15

<sup>17</sup> "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, available at: [http://www.epa.gov/ttn/scram/guidance/clarification/20110411\\_AERSCREEN\\_Release\\_Memo.pdf](http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf)

<sup>18</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

<sup>19</sup> "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf)

$$\text{Emission Rate } \left( \frac{\text{grams}}{\text{second}} \right) = \frac{543.4 \text{ lbs}}{1,289 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.002213 \text{ g/s}}$$

Using this equation, we estimated a construction emission rate of 0.002213 grams per second (g/s). Subtracting the 1,289-day construction duration from the total residential duration of 30 years, we assumed that after Project construction, the MEIR would be exposed to the Project's operational DPM for an additional 26.47 years, approximately. The Project's operational CalEEMod emissions indicate that operational activities will generate approximately 303 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$\text{Emission Rate } \left( \frac{\text{grams}}{\text{second}} \right) = \frac{302.6 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.004353 \text{ g/s}}$$

Using this equation, we estimated an operational emission rate of 0.004353 g/s. Construction and operational activity was simulated as a 143.3-acre rectangular area source in AERSCREEN with dimensions of 853 meters by 680 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.<sup>20</sup> AS previously stated, there are residential sensitive receptors located approximately 400 meters from the Project site. The single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.2564 µg/m<sup>3</sup> DPM at approximately 400 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration 0.02564 µg/m<sup>3</sup> for Project construction at the nearest sensitive receptor. For Project operation, the single-hour concentration is estimated by AERSCREEN is approximately 0.5043 µg/m<sup>3</sup> at approximately 400 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.05043 µg/m<sup>3</sup> for Project operation at the nearest sensitive receptor.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable HRA methodologies prescribed by OEHHA and the BAAQMD. Consistent with the construction schedule proposed by the DEIR, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) entire infantile stage of life (0 – 2 years), and first 1.28 years of the child stage of life (2 – 16 years). The annualized average concentration for operation was

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<sup>20</sup> "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, available at: [http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019\\_OCR.pdf](http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf); see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 4-36

used for the remainder of the 30-year exposure period, which makes up the remainder of the child stages of life (2 – 16 years) and adult stages of life (16 – 30 years). Consistent with OEHHA and BAAQMD guidance, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.<sup>21, 22</sup> According to the most updated guidance, quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used the 95<sup>th</sup> percentile breathing rates for infants.<sup>23</sup> Finally, according to BAAQMD guidance, we used a Fraction of Time At Home (FAH) value of 0.85 for the 3rd trimester and infant receptors, 0.72 for child receptors, and 0.73 for the adult receptors.<sup>24</sup> We used a cancer potency factor of 1.1 (mg/kg-day)<sup>-1</sup> and an averaging time of 25,550 days. Consistent with OEHHA guidance, exposure to the sensitive receptor was assumed to begin in the third trimester to provide the most conservative estimate of air quality hazards. The results of our calculations are shown below.

<b>The Closest Exposed Individual at an Existing Residential Receptor</b>					
<b>Activity</b>	<b>Duration (years)</b>	<b>Concentration (ug/m3)</b>	<b>Breathing Rate (L/kg-day)</b>	<b>ASF</b>	<b>Cancer Risk</b>
Construction	0.25	0.02564	361	10	3.0E-07
<b>3rd Trimester Duration</b>	<b>0.25</b>			<b>3rd Trimester Exposure</b>	<b>3.0E-07</b>
Construction	2.00	0.02564	1090	10	7.2E-06
<b>Infant Exposure Duration</b>	<b>2.00</b>			<b>Infant Exposure</b>	<b>7.2E-06</b>
Construction	1.28	0.02564	572	3	6.1E-07
Operation	12.72	0.05043	572	3	1.2E-05
<b>Child Exposure Duration</b>	<b>14.00</b>			<b>Child Exposure</b>	<b>1.2E-05</b>
Operation	14.00	0.05043	261	1	2.0E-06

<sup>21</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>.

<sup>22</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, available at: [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), p. 5-15.

<sup>23</sup> "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, available at: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>, p. 19.

"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

<sup>24</sup> "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, available at: [http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines\\_clean\\_jan\\_2016-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en)

<b>Adult Exposure Duration</b>	<b>14.00</b>	<b>Adult Exposure</b>	<b>2.0E-06</b>
<b>Lifetime Exposure Duration</b>	<b>30.00</b>	<b>Lifetime Exposure</b>	<b>2.1E-05</b>

As indicated in the table above, the excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the closest receptor, located approximately 400 meters away, over the course of Project construction and operation are approximately 2, 12, 7.2, and 0.3 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) at the closest receptor is approximately 21 in one million. The lifetime cancer risk exceeds the BAAQMD threshold of 10 in one million, thus resulting in a significant impact not previously identified or addressed by the DEIR.

An agency must include an analysis of health risks that connects the Project’s air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection.<sup>25</sup> The purpose of the screening-level construction HRA shown above is to demonstrate the link between the proposed Project’s emissions and the potential health risk. Our screening-level HRA demonstrates that construction of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level construction HRA indicates a potentially significant impact, the City should prepare an EIR with a revised HRA which makes a reasonable effort to connect the Project’s air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

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<sup>25</sup> “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 1-5

## Greenhouse Gas

### Failure to Adequately Assess Greenhouse Gas Impacts

The DEIR evaluates the Project's GHG impact based on the Project's consistency with a BAAQMD threshold, AB 32, SB 32, and the CARB Scoping Plan. Regarding the Project's consistency with the BAAQMD threshold and AB 32, the DEIR states,

"Thus, implementation of the proposed project would result in emissions below the BAAQMD's 4.6 MTCO<sub>2</sub>e/SP/yr threshold of significance for GHG emissions, and the proposed project would be considered to comply with the emissions reductions targets of AB 32" (p. 4.1-43).

Regarding SB 32, the DEIR states,

"Thus, implementation of the proposed would result in emissions above the 660 MTCO<sub>2</sub>e/yr and 2.76 MTCO<sub>2</sub>e/SP/yr thresholds of significance being used for GHG emissions in the year 2030, and, thus, the proposed project would be considered to conflict with SB 32" (p. 4.1-44).

Regarding the Project's consistency with the CARB Scoping Plan, the DEIR states,

"However, the project would not comply with the majority of the applicable measures, and, as a result, the proposed project would not be considered to be consistent with the 2017 Scoping Plan" (p. 4.1-49)

Finally, the DEIR concludes that the Project would result in a significant and unavoidable GHG impact. The DEIR states,

"Implementation of the following mitigation measures would reduce GHG emissions from operation of the proposed project. However, unless subsequent GHG emissions analysis can be performed to show otherwise, the impact is assumed to remain cumulatively considerable and significant and unavoidable" (p. 4.1-50).

Thus, the DEIR concludes that the Project would be inconsistent with the SB 32 and the 2017 CARB Scoping Plan and consistent with AB 32. Furthermore, the DEIR concludes that after the implementation of mitigation measures, the Project's GHG impact will be significant and unavoidable. However, the DEIR's analysis is incorrect for several reasons:

- (1) AB 32, SB 32, and the 2017 CARB Scoping Plan cannot be relied upon to determine Project significance;
- (2) Incorrect and unsubstantiated analysis demonstrates significant GHG impact;
- (3) Updated analysis indicates significant impact; and
- (4) The DEIR fails to implement all feasible mitigation.

#### *(1) AB 32, SB 32, and the CARB Scoping Plan Cannot be Relied Upon to Determine Project Significance*

The DEIR evaluates the Project's consistency with AB 32, SB 32, and the CARB Scoping Plan. However, these policies do not qualify as Climate Action Plans (CAPs) and thus, the DEIR cannot rely on them to determine the Project's GHG impact significance. CEQA Guidelines § 15064.4(b)(3) allows a lead agency

to consider “[t]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (*see, e.g., section 15183.5(b)*).” (Emph. added). When adopting this language, the California Natural Resources Agency (“Resources Agency”) explained in its 2018 Final Statement of Reasons for Regulatory Action (“2018 Statement of Reason”)<sup>26</sup> that it explicitly added referenced to section 15183.5(b) because it was “needed to clarify that lead agencies may rely on plans *prepared pursuant to section 15183.5* in evaluating a project’s [GHG] emissions ... [and] consistent with the Agency’s Final Statement of Reasons for the addition of section 15064.4, which states that ‘proposed section 15064.4 is intended to be *read in conjunction with . . . proposed section 15183.5*. Those sections each indicate that local and regional plans may be developed to reduce GHG emissions.’” 2018 Final Statement of Reason, p. 19 (emph. added); *see also* 2009 Final Statement of Reasons for Regulatory Action, p. 27.<sup>27</sup> When read in conjunction, CEQA Guidelines §§ 15064.4(b)(3) and 15183.5(b)(1) make clear qualified GHG reduction plans (also commonly referred to as a Climate Action Plan [“CAP”]) should include the following features:

- (1) **Inventory:** Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
- (2) **Establish GHG Reduction Goal:** Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- (3) **Analyze Project Types:** Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (4) **Craft Performance Based Mitigation Measures:** Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (5) **Monitoring:** Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels;

The above-listed CAP features provide the necessary *substantial evidence demonstrating a project’s incremental contribution is not cumulative considerable*, as required under CEQA Guidelines § 15064.4(b)(3).<sup>28</sup> Here, however, the DEIR fails to demonstrate that the plans and policies include the

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<sup>26</sup> Resources Agency (Nov. 2018) Final Statement of Reasons For Regulatory Action: Amendments To The State CEQA Guidelines, [http://resources.ca.gov/ceqa/docs/2018\\_CEQA\\_Final\\_Statement\\_of%20Reasons\\_111218.pdf](http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf).

<sup>27</sup> Resources Agency (Dec. 2009) Final Statement of Reasons for Regulatory Action, p. 27 (“Those sections each indicate that local and regional plans may be developed to reduce GHG emissions. If such plans reduce community-wide emissions to a level that is less than significant, a later project that complies with the requirements in such a plan may be found to have a less than significant impact.”), [http://resources.ca.gov/ceqa/docs/Final\\_Statement\\_of\\_Reasons.pdf](http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf).

<sup>28</sup> *See Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 200-201 (Upheld qualitative GHG analysis when based on city’s adopted its greenhouse gas strategy that contained “multiple elements” of CEQA Guidelines § 15183.5(b), “quantification of [city’s] baseline levels of [GHG] emissions and planned reductions[,]” approved by the regional air district, and “[a]t the heart” of the city’s greenhouse gas



above-listed requirements to be considered a qualified CAP for the City. As such, the DEIR leaves an analytical gap showing that compliance with said plans can be used for a project-level significance determination. Thus, the DEIR's GHG analysis regarding AB 32, SB 32, and the CARB Scoping Plan should not be relied upon to determine Project significance.

### *(2) Incorrect and Unsubstantiated Analysis Demonstrates Significant GHG Impact*

While we agree that the Project would be inconsistent with SB 32 and the 2017 CARB Scoping Plan, the DEIR's assertion that the Project would comply with AB 32, because the Project's emissions would be below the BAAQMD's service population efficiency threshold of 4.6 MT CO<sub>2</sub>e/Service Population/Year (MT CO<sub>2</sub>e/SP/year) is incorrect for several reasons. First, as discussed above, the DEIR relies upon a flawed CalEEMod model to estimate Project GHG emissions. This is incorrect, as the DEIR's CalEEMod model underestimates emissions. Second, the BAAQMD's 2020 service population efficiency threshold is not appropriate for evaluating the Project's significance, which is not anticipated to complete construction until 2023. The BAAQMD regularly utilizes a substantial progress Tier 4 service population efficiency target goal of 2.6 MT CO<sub>2</sub>e/SP/year for target year 2030.<sup>29</sup> Thus, the DEIR should have compared the Project's emissions to the 2.6 MT CO<sub>2</sub>e/SP/year for the target year of 2030.

Notwithstanding the flawed GHG evaluation discussed above, applicable thresholds demonstrate that the Project would have a significant GHG impact. If the correct threshold had been used to adequately evaluate the Project's emissions, a significant impact would have been revealed that was not previously identified or addressed in the DEIR. The DEIR concludes that the Project's service population efficiency would be 4.32 MT CO<sub>2</sub>e/SP/year stating,

“[T]he project's total unmitigated annual GHG emissions in the first year of project operation, 2023, including amortized construction-related emissions, were estimated to be approximately 10,988.70 MTCO<sub>2</sub>e/yr, which results in emissions of 4.32 MTCO<sub>2</sub>e/SP/yr” (p. 4.1-43).

When we compare the service population efficiency of 4.32 MT CO<sub>2</sub>e/SP/year had been compared to the BAAQMD's 2030 substantiated progress service population efficiency target of 2.6 MT CO<sub>2</sub>e/SP/year, we find that the Project's GHG emissions exceed the threshold. Thus, we find a potentially significant GHG impact not previously identified in the DEIR. According to CEQA Guidelines § 15064.4(b), if there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, a full CEQA analysis must be prepared for the project. The DEIR may not ignore this analysis and application of routinely used GHG thresholds by claiming discretion in deciding which thresholds it wishes to employ. As one court explained when setting aside an EIR where commenters questioned the city's use of a particular threshold, the discretion granted to lead agencies are not “unbounded” and (emphasis added):

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strategy was “specific regulations” and measures to be implemented on a “project-by-project basis ... designed to achieve the specified citywide emission level.”).

<sup>29</sup> “Final White Paper Beyond 2020 and Newhall.” Association of Environmental Professionals (AEP), October 2016, available at: [https://califaep.org/docs/AEP-2016\\_Final\\_White\\_Paper.pdf](https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf), p. 40;



“[T]he fact that a particular environmental effect *meets a particular threshold cannot be used as an automatic determinant that the effect is or is not significant* ... a threshold of significance *cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant.*” *East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal.App.5th 281, 300, 303-304 (internal citations omitted).

Thus, the results of the above analysis provide substantial evidence that the proposed Project’s GHG emissions are still cumulatively considerable notwithstanding its purported compliance with AB 32. Therefore, an updated CEQA analysis must be prepared for the Project, and mitigation should be implemented where necessary, per CEQA guidelines.

*(3) Updated Analysis Indicates Significant Impact*

Applicable thresholds and site-specific modeling demonstrate that the Project will result in a potentially significant GHG impact. The updated CalEEMod output files, modeled by SWAPE with Project-specific information, disclose the Project’s mitigated emissions, which include approximately 8,960.3 MT CO<sub>2</sub>e of total construction emissions (sum of emissions from 2019, 2020, and 2021 for both on-site and off-site construction) and approximately 18,224.6 MT CO<sub>2</sub>e/year of annual operational emissions (sum of area, energy, mobile, stationary, waste, and water-related emissions from both on-site and off-site operations). When we compare the total Project’s GHG emissions to the BAAQMD bright-line threshold of 1,100 MT CO<sub>2</sub>e/year,<sup>30</sup> we find that the Project’s GHG emissions exceed the threshold (see table below).

<b>SWAPE Annual Greenhouse Gas Emissions</b>	
<b>Project Phase</b>	<b>Proposed Project (MT CO<sub>2</sub>e/year)</b>
Construction (amortized over 30 years)	298.68
Area	0.07
Energy	11,407.83
Mobile	4,250.91
Waste	1,215.38
Water	1,350.42
<b>Total</b>	<b>18,523.28</b>
Threshold	1,100.00
<b>Exceed?</b>	<b>Yes</b>

As demonstrated in the table above, the proposed Project would generate a total of approximately 18,523.3 MT CO<sub>2</sub>e/year when modeled correctly, which exceeds the BAAQMD’s 1,100 MT CO<sub>2</sub>e/year

<sup>30</sup> “California Environmental Quality Act Air Quality Guidelines.” BAAQMD, May 2017, available at: [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), p. 2-4.

threshold. Hence, a Tier 4 analysis is warranted. When dividing the Project’s GHG emissions by a service population value of 2,542 people, as indicated in the DEIR, we find that the Project would emit approximately 7.3 MT CO<sub>2</sub>e/SP/year (p. 4.1-43).<sup>31</sup> This exceeds the BAAQMD substantial progress threshold of 2.6 MT CO<sub>2</sub>e/SP/year (see table below).

<b>SWAPE Greenhouse Gas Emissions</b>	
<b>Project Phase</b>	<b>Proposed Project (MT CO<sub>2</sub>e/year)</b>
<b>Annual Emissions</b>	<b>18523.28</b>
Service Population	2542.00
<b>Service Population Efficiency</b>	<b>7.29</b>
Threshold	2.60
<b>Exceed?</b>	<b>Yes</b>

As the table above demonstrates, when correct input parameters are used to model Project emissions, the Project’s total GHG emissions exceed the “Substantial Progress” efficiency threshold for 2030 of 2.6 MT CO<sub>2</sub>e/SP/year, thus resulting in a significant impact not previously assessed or identified in the DEIR. As a result, an updated GHG analysis should be prepared in a Project-specific EIR and additional mitigation should be incorporated into the Project.

*(4) Failure to Implement All Feasible Mitigation*

Furthermore, while we agree that the Project’s GHG impact would be significant, the DEIR’s assertion that the Project’s GHG impact would be unavoidable and cannot be mitigated further is incorrect. According to the California Environmental Quality Act (CEQA),

“CEQA requires Lead Agencies to mitigate or avoid significant environmental impacts associated with discretionary projects. Environmental documents for projects that have any significant environmental impacts must identify all feasible mitigation measures or alternatives to reduce the impacts below a level of significance. If after the identification of all feasible mitigation measures, a project is still deemed to have significant environmental impacts, the Lead Agency can approve a project, but must adopt a Statement of Overriding Consideration to explain why further mitigation measures are not feasible and why approval of a project with significant unavoidable impacts is warranted.”<sup>32</sup>

As you can see, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation is considered. Review of the Project’s proposed mitigation measures, however, demonstrates that the DEIR fails to implement all feasible mitigation. Therefore, the DEIR’s conclusion that impacts are significant and unavoidable is unsubstantiated. As a result, additional mitigation measures should be identified and incorporated in an updated EIR in order to reduce the Project’s air quality impacts to the

<sup>31</sup> Calculated: (18,523.3 MT CO<sub>2</sub>e/year) / (2,542 service population) = (7.29 MT CO<sub>2</sub>e/SP/year).

<sup>32</sup> [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf), p. 115 of 125

maximum extent possible. Until all feasible mitigation is reviewed and incorporated into the Project's design, impacts from GHG emissions cannot be considered significant and unavoidable.

### Feasible Mitigation Measures Available to Reduce Construction Emissions

Our analysis demonstrates that, when Project activities are modeled correctly, construction emissions would result in potentially significant impacts. Therefore, additional mitigation measures must be identified and incorporated in a DEIR to reduce these emissions to a less than significant level.

Additional mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, which attempt to reduce GHG levels, as well as reduce criteria air pollutants such as particulate matter and NOx.<sup>33</sup> DPM and NOx are a byproduct of diesel fuel combustion and are emitted by on-road vehicles and by off-road construction equipment. Mitigation for criteria pollutant emissions should include consideration of the following measures in an effort to reduce construction emissions.<sup>34</sup>

#### *Require Implementation of Diesel Control Measures*

The Northeast Diesel Collaborative (NEDC) is a regionally coordinated initiative to reduce diesel emissions, improve public health, and promote clean diesel technology. The NEDC recommends that contracts for all construction projects require the following diesel control measures:<sup>35</sup>

- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.
- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend<sup>36</sup> approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

#### *Repower or Replace Older Construction Equipment Engines*

The NEDC recognizes that availability of equipment that meets the EPA's newer standards is limited.<sup>37</sup> Due to this limitation, the NEDC proposes actions that can be taken to reduce emissions from existing equipment in the *Best Practices for Clean Diesel Construction* report.<sup>38</sup> These actions include but are not limited to:

- Repowering equipment (i.e. replacing older engines with newer, cleaner engines and leaving the body of the equipment intact).

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<sup>33</sup><http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

<sup>34</sup> For measures to reduce operational DPM emissions, see section titled "Additional Feasible Mitigation Measures Available to Reduce Operational Emissions" on p. 25 of this letter. These measures would effectively reduce operational VOC and NOx emissions, DPM emissions, as well as GHG emissions.

<sup>35</sup> Diesel Emission Controls in Construction Projects, *available*

at:<http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

<sup>36</sup> Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements:

<http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf>

<sup>37</sup><http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf>

<sup>38</sup><http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf>

Engine repower may be a cost-effective emissions reduction strategy when a vehicle or machine has a long useful life and the cost of the engine does not approach the cost of the entire vehicle or machine. Examples of good potential replacement candidates include marine vessels, locomotives, and large construction machines.<sup>39</sup> Older diesel vehicles or machines can be repowered with newer diesel engines or in some cases with engines that operate on alternative fuels. The original engine is taken out of service and a new engine with reduced emission characteristics is installed. Significant emission reductions can be achieved, depending on the newer engine and the vehicle or machine's ability to accept a more modern engine and emission control system. It should be noted, however, that newer engines or higher tier engines are not necessarily cleaner engines, so it is important that the Project Applicant check the actual emission standard level of the current (existing) and new engines to ensure the repower product is reducing emissions for DPM.<sup>40</sup>

- Replacement of older equipment with equipment meeting the latest emission standards.

Engine replacement can include substituting a cleaner highway engine for a nonroad engine. Diesel equipment may also be replaced with other technologies or fuels. Examples include hybrid switcher locomotives, electric cranes, LNG, CNG, LPG or propane yard tractors, forklifts or loaders. Replacements using natural gas may require changes to fueling infrastructure.<sup>41</sup> Replacements often require some re-engineering work due to differences in size and configuration. Typically, there are benefits in fuel efficiency, reliability, warranty, and maintenance costs.<sup>42</sup>

#### *Install Retrofit Devices on Existing Construction Equipment*

PM emissions from alternatively-fueled construction equipment can be further reduced by installing retrofit devices on existing and/or new equipment. The most common retrofit technologies are retrofit devices for engine exhaust after-treatment. These devices are installed in the exhaust system to reduce emissions and should not impact engine or vehicle operation.<sup>43</sup> It should be noted that actual emissions reductions and costs will depend on specific manufacturers, technologies and applications.

#### *Use Electric and Hybrid Construction Equipment*

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*<sup>44</sup> report also proposes the use of electric and/or hybrid construction equipment as a way to mitigate DPM emissions. When construction equipment is powered by grid electricity rather than fossil fuel, direct emissions from fuel combustion are replaced with indirect emissions associated with the electricity used to power the equipment.

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<sup>39</sup> Repair, Rebuild, and Repower, EPA, available at: <https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#repair>

<sup>40</sup> Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information, available at: <http://www2.epa.gov/sites/production/files/2015-09/documents/420p11001.pdf>

<sup>41</sup> Alternative Fuel Conversion, EPA, available at: <https://www3.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm#fact>

<sup>42</sup> Cleaner Fuels, EPA, available at: <https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#cleaner>

<sup>43</sup> Retrofit Technologies, EPA, available at: <https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#retrofit>

<sup>44</sup> <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

Furthermore, when construction equipment is powered by hybrid-electric drives, emissions from fuel combustion are also greatly reduced. Electric construction equipment is available commercially from companies such as Peterson Pacific Corporation,<sup>45</sup> which specialize in the mechanical processing equipment like grinders and shredders. Construction equipment powered by hybrid-electric drives is also commercially available from companies such as Caterpillar.<sup>46</sup> For example, Caterpillar reports that during an 8-hour shift, its D7E hybrid dozer burns 19.5 percent fewer gallons of fuel than a conventional dozer while achieving a 10.3 percent increase in productivity. The D7E model burns 6.2 gallons per hour compared to a conventional dozer which burns 7.7 gallons per hour.<sup>47</sup> Fuel usage and savings are dependent on the make and model of the construction equipment used. The Project Applicant should calculate project-specific savings and provide manufacturer specifications indicating fuel burned per hour.

### *Implement a Construction Vehicle Inventory Tracking System*

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*<sup>48</sup> report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring engine run time meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, for each onroad construction vehicle, nonroad construction equipment, or generator, the contractor should submit to the developer's representative a report prior to bringing said equipment on site that includes:<sup>49</sup>

- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
- The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.
- The Certification Statement<sup>50</sup> signed and printed on the contractor's letterhead.

Furthermore, the contractor should submit to the developer's representative a monthly report that, for each on-road construction vehicle, nonroad construction equipment, or generator onsite, includes:<sup>51</sup>

- Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.

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<sup>45</sup> Peterson Electric Grinders Brochure, available at: [http://www.petersoncorp.com/wp-content/uploads/peterson\\_electric\\_grinders1.pdf](http://www.petersoncorp.com/wp-content/uploads/peterson_electric_grinders1.pdf)

<sup>46</sup> Electric Power Products, available at: [http://www.cat.com/en\\_US/products/new/power-systems/electric-power-generation.html](http://www.cat.com/en_US/products/new/power-systems/electric-power-generation.html)

<sup>47</sup> <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

<sup>48</sup> <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

<sup>49</sup> Diesel Emission Controls in Construction Projects, available at: <http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

<sup>50</sup> Diesel Emission Controls in Construction Projects, available at: <http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf> The NEDC Model Certification Statement can be found in Appendix A.

<sup>51</sup> Diesel Emission Controls in Construction Projects, available at: <http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf>

- Any problems with the equipment or emission controls.
- Certified copies of fuel deliveries for the time period that identify:
  - Source of supply
  - Quantity of fuel
  - Quality of fuel, including sulfur content (percent by weight)

In addition to these measures, we also recommend that the Project implement the following mitigation measures, called “Enhanced Exhaust Control Practices,”<sup>52</sup> that are recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD):

1. The project representative shall submit to the lead agency a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.
  - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
  - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
  - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
  - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
2. The project representative shall provide a plan for approval by the lead agency demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.
  - This plan shall be submitted in conjunction with the equipment inventory.
  - Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
  - The District’s Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.
3. The project representative shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.
  - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency monthly.
  - A visual survey of all in-operation equipment shall be made at least weekly.

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<sup>52</sup>[http://www.airquality.org/cega/Ch3EnhancedExhaustControl\\_10-2013.pdf](http://www.airquality.org/cega/Ch3EnhancedExhaustControl_10-2013.pdf)

- A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.
4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supersede other District, state or federal rules or regulations.

#### *Use of Spray Equipment with Greater Transfer Efficiencies*

Various coatings and adhesives are required to be applied by specified methods such as electrostatic spray, high-volume, low-pressure (HVLP) spray, roll coater, flow coater, dip coater, etc. in order to maximize the transfer efficiency. Transfer efficiency is typically defined as the ratio of the weight of coating solids adhering to an object to the total weight of coating solids used in the application process, expressed as a percentage. When it comes to spray applications, the rules typically require the use of either electrostatic spray equipment or HVLP spray equipment. The SCAQMD is now able to certify HVLP spray applicators and other application technologies at efficiency rates of 65 percent or greater.<sup>53</sup>

These measures offer a cost-effective, feasible way to incorporate lower-emitting equipment into the Project's construction fleet, which subsequently reduces construction emissions. A revised EIR must be prepared to include additional mitigation measures, as well as include an updated air quality assessment to ensure that the necessary mitigation measures are implemented to reduce construction emissions. Furthermore, the updated EIR needs to demonstrate commitment to the implementation of these measures prior to Project approval to ensure that the Project's construction-related emissions are reduced to the maximum extent possible.

#### *Additional Feasible Mitigation Measures Available to Reduce Operational Emissions*

Our analysis demonstrates that the Project's air quality and GHG emissions may result in a potentially significant impact. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, which attempt to reduce GHG levels, as well as reduce criteria air pollutants such as particulate matter emissions.<sup>54</sup> Therefore, to reduce the Project's GHG emissions, consideration of the following measures should be made.

- Integrate affordable and below market rate housing
- Energy-related mitigation:
  - Install programmable thermostat timers
  - Establish onsite renewable energy systems, including solar power and wind power
  - Limit outdoor lighting requirements
  - Reduce unnecessary outdoor lighting by utilizing design features such as limiting the hours of operation of outdoor lighting.

<sup>53</sup> <http://www.aqmd.gov/home/permits/spray-equipment-transfer-efficiency>

<sup>54</sup> <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

- Provide education on energy efficiency to residents, customers, and/or tenants. Provide information on energy management services for large energy users.
- Meet “reach” goals for building energy efficiency and renewable energy use.
- Limit the use of outdoor lighting to only that needed for safety and security purposes.
- Require use of electric or alternatively fueled sweepers with HEPA filters.
- Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
- Prohibit gas powered landscape equipment and implement electric yard equipment compatibility
- Transportation-related mitigation:
  - Provide EV parking
  - Require residential area parking permits
  - Implement ride-sharing, vanpool, shuttle, bike-sharing programs
  - Provide bike parking near transit
  - Provide local shuttles
  - Implement area or cordon pricing
  - Install a park-and-ride lot
- Water-related mitigation:
  - Install an infiltration basin to provide an opportunity for 100% of the storm water to infiltrate on-site.
  - Install a system to reuse gray water
  - Use locally-sourced water supply
  - Plant native and drought-resistant trees and vegetation
- Develop and follow a “green streets guide” that requires:
  - Use of minimal amounts of concrete and asphalt;
  - Use of groundcovers rather than pavement to reduce heat reflection.<sup>55</sup>
- Implement Project design features such as:
  - Shade HVAC equipment from direct sunlight;
  - Install high-albedo white thermoplastic polyolefin roof membrane;
  - Install formaldehyde-free insulation; and
  - Use recycled-content gypsum board.
  - Require all buildings to become “LEED” and “WELL” certified.
- Plant low-VOC emitting shade trees, e.g., in parking lots to reduce evaporative emissions from parked vehicles.

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<sup>55</sup> Cool Houston Plan;

[http://www.harcresearch.org/sites/default/files/documents/projects/CoolHoustonPlan\\_0.pdf](http://www.harcresearch.org/sites/default/files/documents/projects/CoolHoustonPlan_0.pdf)



Finally, the Kimball Business Park Project Final Environmental Impact Report includes various feasible mitigation measures that would reduce on-site area emissions that are applicable to the proposed Project's retail land use, and include, but are not limited to:<sup>56</sup>

- Increase in insulation such that heat transfer and thermal bridging is minimized.
- Limit air leakage through the structure and/or within the heating and cooling distribution system.
- Installation of dual-paned or other energy efficient windows.
- Installation of automatic devices to turn off lights where they are not needed.

When combined, these measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduces emissions released during Project operation. An updated EIR should be prepared to include additional mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR also needs to demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

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<sup>56</sup> Mitigation Monitoring Plan for the Kimball Business Park Project Final Environmental Impact Report, July 2016.

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

Project Characteristics - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model. Left defaults.

Grading - Matches DEIR's model. See SWAPE comment about material export.

Demolition - See SWAPE comment about demolition.

Trips and VMT - Matches DEIR's model. Left defaults.

Architectural Coating - Matches DEIR's model.

Vehicle Trips - Matches DEIR's model.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment about Tier 4 equipment.

Mobile Land Use Mitigation - See SWAPE comment about mobile mitigation measures.

Area Mitigation - Matches DEIR's model.

Energy Mitigation - See SWAPE comment about Title 24 Energy mitigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

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tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00
tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblConstructionPhase	PhaseEndDate	12/4/2020	5/4/2020
tblConstructionPhase	PhaseEndDate	7/29/2022	6/16/2020
tblConstructionPhase	PhaseEndDate	4/20/2035	7/1/2020
tblConstructionPhase	PhaseStartDate	5/22/2021	5/5/2020
tblConstructionPhase	PhaseStartDate	6/17/2034	6/17/2020
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialExported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01

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tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 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					
2020	0.9186	8.9556	6.6242	0.0217	1.3206	0.2717	1.5922	0.4415	0.2529	0.6945	0.0000	1,991.5496	1,991.5496	0.2248	0.0000	1,997.1695
2021	0.8713	7.6989	6.7431	0.0255	1.4749	0.1742	1.6490	0.4197	0.1633	0.5830	0.0000	2,353.2351	2,353.2351	0.1778	0.0000	2,357.6790
2022	0.8815	7.8514	7.0960	0.0300	1.6616	0.1348	1.7964	0.4502	0.1274	0.5777	0.0000	2,782.3035	2,782.3035	0.1622	0.0000	2,786.3572
2023	0.5277	4.2600	4.4405	0.0194	1.1076	0.0752	1.1828	0.3001	0.0711	0.3712	0.0000	1,795.8799	1,795.8799	0.0991	0.0000	1,798.3576
<b>Maximum</b>	<b>0.9186</b>	<b>8.9556</b>	<b>7.0960</b>	<b>0.0300</b>	<b>1.6616</b>	<b>0.2717</b>	<b>1.7964</b>	<b>0.4502</b>	<b>0.2529</b>	<b>0.6945</b>	<b>0.0000</b>	<b>2,782.3035</b>	<b>2,782.3035</b>	<b>0.2248</b>	<b>0.0000</b>	<b>2,786.3572</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**2.1 Overall Construction**

**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					
2020	0.9186	8.9556	6.6242	0.0217	1.3206	0.2717	1.5922	0.4415	0.2529	0.6945	0.0000	1,991.5489	1,991.5489	0.2248	0.0000	1,997.1688
2021	0.8713	7.6989	6.7431	0.0255	1.4749	0.1742	1.6490	0.4197	0.1633	0.5830	0.0000	2,353.2346	2,353.2346	0.1778	0.0000	2,357.6785
2022	0.8815	7.8514	7.0960	0.0300	1.6616	0.1348	1.7964	0.4502	0.1274	0.5777	0.0000	2,782.3031	2,782.3031	0.1622	0.0000	2,786.3568
2023	0.5277	4.2600	4.4405	0.0194	1.1076	0.0752	1.1828	0.3001	0.0711	0.3712	0.0000	1,795.8797	1,795.8797	0.0991	0.0000	1,798.3574
<b>Maximum</b>	<b>0.9186</b>	<b>8.9556</b>	<b>7.0960</b>	<b>0.0300</b>	<b>1.6616</b>	<b>0.2717</b>	<b>1.7964</b>	<b>0.4502</b>	<b>0.2529</b>	<b>0.6945</b>	<b>0.0000</b>	<b>2,782.3031</b>	<b>2,782.3031</b>	<b>0.2248</b>	<b>0.0000</b>	<b>2,786.3568</b>

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-2-2020	6-1-2020	2.2386	2.2386
2	6-2-2020	9-1-2020	2.5864	2.5864
3	9-2-2020	12-1-2020	4.3836	4.3836
4	12-2-2020	3-1-2021	3.3447	3.3447
5	3-2-2021	6-1-2021	1.2727	1.2727
6	6-2-2021	9-1-2021	2.3538	2.3538
7	9-2-2021	12-1-2021	2.3559	2.3559
8	12-2-2021	3-1-2022	2.2329	2.2329

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9	3-2-2022	6-1-2022	2.2016	2.2016
10	6-2-2022	9-1-2022	2.1896	2.1896
11	9-2-2022	12-1-2022	2.1906	2.1906
12	12-2-2022	3-1-2023	1.9275	1.9275
13	3-2-2023	6-1-2023	1.8225	1.8225
14	6-2-2023	9-1-2023	1.7564	1.7564
15	9-2-2023	9-30-2023	0.0095	0.0095
		Highest	4.3836	4.3836

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	8.8381	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Energy	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	11,360.0126	11,360.0126	0.4712	0.1209	11,407.8261
Mobile	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119
Waste						0.0000	0.0000		0.0000	0.0000	490.5825	0.0000	490.5825	28.9926	0.0000	1,215.3973
Water						0.0000	0.0000		0.0000	0.0000	145.6515	722.6804	868.3318	14.9925	0.3600	1,350.4220
<b>Total</b>	<b>9.9761</b>	<b>6.0091</b>	<b>12.9518</b>	<b>0.0552</b>	<b>4.3099</b>	<b>0.1513</b>	<b>4.4612</b>	<b>1.1566</b>	<b>0.1488</b>	<b>1.3054</b>	<b>636.2339</b>	<b>16,330.1551</b>	<b>16,966.3891</b>	<b>44.5968</b>	<b>0.4809</b>	<b>18,224.6209</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	7.7916	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Energy	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	11,360.0126	11,360.0126	0.4712	0.1209	11,407.8261
Mobile	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119
Waste						0.0000	0.0000		0.0000	0.0000	490.5825	0.0000	490.5825	28.9926	0.0000	1,215.3973
Water						0.0000	0.0000		0.0000	0.0000	145.6515	722.6804	868.3318	14.9925	0.3600	1,350.4220
<b>Total</b>	<b>8.9296</b>	<b>6.0091</b>	<b>12.9518</b>	<b>0.0552</b>	<b>4.3099</b>	<b>0.1513</b>	<b>4.4612</b>	<b>1.1566</b>	<b>0.1488</b>	<b>1.3054</b>	<b>636.2339</b>	<b>16,330.1551</b>	<b>16,966.3891</b>	<b>44.5968</b>	<b>0.4809</b>	<b>18,224.6209</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	10.49	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	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
2	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
3	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
4	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
5	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
6	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	
7	Demolition	Demolition	3/2/2020	5/4/2020	5	46	
8	Grading	Grading	5/5/2020	6/16/2020	5	31	
9	Paving	Paving	6/17/2020	7/1/2020	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 40.08

Acres of Paving: 17.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

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Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Construction 2	Cranes	1	7.00	231	0.29
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Grading 2	Excavators	2	8.00	158	0.38
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74
Grading 2	Graders	1	8.00	187	0.41
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48
Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45

**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	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1389	1.2567	1.1036	1.7600e-003		0.0732	0.0732		0.0688	0.0688	0.0000	151.7045	151.7045	0.0370	0.0000	152.6298
<b>Total</b>	<b>0.1389</b>	<b>1.2567</b>	<b>1.1036</b>	<b>1.7600e-003</b>		<b>0.0732</b>	<b>0.0732</b>		<b>0.0688</b>	<b>0.0688</b>	<b>0.0000</b>	<b>151.7045</b>	<b>151.7045</b>	<b>0.0370</b>	<b>0.0000</b>	<b>152.6298</b>

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**3.2 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1049	3.1287	0.7866	7.3900e-003	0.1778	0.0153	0.1931	0.0514	0.0146	0.0660	0.0000	709.9757	709.9757	0.0366	0.0000	710.8912
Worker	0.2306	0.1650	1.7085	5.3300e-003	0.5497	3.7000e-003	0.5534	0.1462	3.4100e-003	0.1496	0.0000	481.5573	481.5573	0.0117	0.0000	481.8487
<b>Total</b>	<b>0.3355</b>	<b>3.2937</b>	<b>2.4951</b>	<b>0.0127</b>	<b>0.7275</b>	<b>0.0190</b>	<b>0.7464</b>	<b>0.1977</b>	<b>0.0180</b>	<b>0.2157</b>	<b>0.0000</b>	<b>1,191.5331</b>	<b>1,191.5331</b>	<b>0.0483</b>	<b>0.0000</b>	<b>1,192.7399</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	0.1389	1.2567	1.1036	1.7600e-003		0.0732	0.0732		0.0688	0.0688	0.0000	151.7044	151.7044	0.0370	0.0000	152.6296
<b>Total</b>	<b>0.1389</b>	<b>1.2567</b>	<b>1.1036</b>	<b>1.7600e-003</b>		<b>0.0732</b>	<b>0.0732</b>		<b>0.0688</b>	<b>0.0688</b>	<b>0.0000</b>	<b>151.7044</b>	<b>151.7044</b>	<b>0.0370</b>	<b>0.0000</b>	<b>152.6296</b>

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**3.2 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1049	3.1287	0.7866	7.3900e-003	0.1778	0.0153	0.1931	0.0514	0.0146	0.0660	0.0000	709.9757	709.9757	0.0366	0.0000	710.8912
Worker	0.2306	0.1650	1.7085	5.3300e-003	0.5497	3.7000e-003	0.5534	0.1462	3.4100e-003	0.1496	0.0000	481.5573	481.5573	0.0117	0.0000	481.8487
<b>Total</b>	<b>0.3355</b>	<b>3.2937</b>	<b>2.4951</b>	<b>0.0127</b>	<b>0.7275</b>	<b>0.0190</b>	<b>0.7464</b>	<b>0.1977</b>	<b>0.0180</b>	<b>0.2157</b>	<b>0.0000</b>	<b>1,191.5331</b>	<b>1,191.5331</b>	<b>0.0483</b>	<b>0.0000</b>	<b>1,192.7399</b>

**3.2 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.1918	0.1823	3.0000e-004		0.0105	0.0105		9.9100e-003	9.9100e-003	0.0000	25.4801	25.4801	6.1500e-003	0.0000	25.6338
<b>Total</b>	<b>0.0209</b>	<b>0.1918</b>	<b>0.1823</b>	<b>3.0000e-004</b>		<b>0.0105</b>	<b>0.0105</b>		<b>9.9100e-003</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>25.4801</b>	<b>25.4801</b>	<b>6.1500e-003</b>	<b>0.0000</b>	<b>25.6338</b>

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**3.2 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	0.0145	0.4757	0.1187	1.2300e-003	0.0299	1.0300e-003	0.0309	8.6400e-003	9.9000e-004	9.6300e-003	0.0000	118.1052	118.1052	5.8100e-003	0.0000	118.2504
Worker	0.0359	0.0247	0.2620	8.6000e-004	0.0923	6.0000e-004	0.0929	0.0246	5.6000e-004	0.0251	0.0000	78.0346	78.0346	1.7500e-003	0.0000	78.0783
<b>Total</b>	<b>0.0503</b>	<b>0.5004</b>	<b>0.3807</b>	<b>2.0900e-003</b>	<b>0.1222</b>	<b>1.6300e-003</b>	<b>0.1238</b>	<b>0.0332</b>	<b>1.5500e-003</b>	<b>0.0347</b>	<b>0.0000</b>	<b>196.1398</b>	<b>196.1398</b>	<b>7.5600e-003</b>	<b>0.0000</b>	<b>196.3287</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	0.0209	0.1918	0.1823	3.0000e-004		0.0105	0.0105		9.9100e-003	9.9100e-003	0.0000	25.4801	25.4801	6.1500e-003	0.0000	25.6338
<b>Total</b>	<b>0.0209</b>	<b>0.1918</b>	<b>0.1823</b>	<b>3.0000e-004</b>		<b>0.0105</b>	<b>0.0105</b>		<b>9.9100e-003</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>25.4801</b>	<b>25.4801</b>	<b>6.1500e-003</b>	<b>0.0000</b>	<b>25.6338</b>

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**3.2 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	0.0145	0.4757	0.1187	1.2300e-003	0.0299	1.0300e-003	0.0309	8.6400e-003	9.9000e-004	9.6300e-003	0.0000	118.1052	118.1052	5.8100e-003	0.0000	118.2504
Worker	0.0359	0.0247	0.2620	8.6000e-004	0.0923	6.0000e-004	0.0929	0.0246	5.6000e-004	0.0251	0.0000	78.0346	78.0346	1.7500e-003	0.0000	78.0783
<b>Total</b>	<b>0.0503</b>	<b>0.5004</b>	<b>0.3807</b>	<b>2.0900e-003</b>	<b>0.1222</b>	<b>1.6300e-003</b>	<b>0.1238</b>	<b>0.0332</b>	<b>1.5500e-003</b>	<b>0.0347</b>	<b>0.0000</b>	<b>196.1398</b>	<b>196.1398</b>	<b>7.5600e-003</b>	<b>0.0000</b>	<b>196.3287</b>

**3.3 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1019	0.1108	1.8000e-004		6.7100e-003	6.7100e-003		6.7100e-003	6.7100e-003	0.0000	15.4472	15.4472	1.2000e-003	0.0000	15.4771
<b>Total</b>	<b>0.0147</b>	<b>0.1019</b>	<b>0.1108</b>	<b>1.8000e-004</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>	<b>0.0000</b>	<b>15.4472</b>	<b>15.4472</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>15.4771</b>

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**3.3 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	0.0304	0.3150	9.8000e-004	0.1014	6.8000e-004	0.1020	0.0270	6.3000e-004	0.0276	0.0000	88.7919	88.7919	2.1500e-003	0.0000	88.8456
<b>Total</b>	<b>0.0425</b>	<b>0.0304</b>	<b>0.3150</b>	<b>9.8000e-004</b>	<b>0.1014</b>	<b>6.8000e-004</b>	<b>0.1020</b>	<b>0.0270</b>	<b>6.3000e-004</b>	<b>0.0276</b>	<b>0.0000</b>	<b>88.7919</b>	<b>88.7919</b>	<b>2.1500e-003</b>	<b>0.0000</b>	<b>88.8456</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1019	0.1108	1.8000e-004		6.7100e-003	6.7100e-003		6.7100e-003	6.7100e-003	0.0000	15.4472	15.4472	1.2000e-003	0.0000	15.4771
<b>Total</b>	<b>0.0147</b>	<b>0.1019</b>	<b>0.1108</b>	<b>1.8000e-004</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>		<b>6.7100e-003</b>	<b>6.7100e-003</b>	<b>0.0000</b>	<b>15.4472</b>	<b>15.4472</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>15.4771</b>



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**3.3 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	0.0304	0.3150	9.8000e-004	0.1014	6.8000e-004	0.1020	0.0270	6.3000e-004	0.0276	0.0000	88.7919	88.7919	2.1500e-003	0.0000	88.8456
<b>Total</b>	<b>0.0425</b>	<b>0.0304</b>	<b>0.3150</b>	<b>9.8000e-004</b>	<b>0.1014</b>	<b>6.8000e-004</b>	<b>0.1020</b>	<b>0.0270</b>	<b>6.3000e-004</b>	<b>0.0276</b>	<b>0.0000</b>	<b>88.7919</b>	<b>88.7919</b>	<b>2.1500e-003</b>	<b>0.0000</b>	<b>88.8456</b>

**3.3 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-003	0.0244	0.0291	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.0852	4.0852	2.8000e-004	0.0000	4.0922
<b>Total</b>	<b>3.5000e-003</b>	<b>0.0244</b>	<b>0.0291</b>	<b>5.0000e-005</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>4.0922</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	0.0104	7.1800e-003	0.0761	2.5000e-004	0.0268	1.8000e-004	0.0270	7.1300e-003	1.6000e-004	7.2900e-003	0.0000	22.6582	22.6582	5.1000e-004	0.0000	22.6709
<b>Total</b>	<b>0.0104</b>	<b>7.1800e-003</b>	<b>0.0761</b>	<b>2.5000e-004</b>	<b>0.0268</b>	<b>1.8000e-004</b>	<b>0.0270</b>	<b>7.1300e-003</b>	<b>1.6000e-004</b>	<b>7.2900e-003</b>	<b>0.0000</b>	<b>22.6582</b>	<b>22.6582</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>22.6709</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-003	0.0244	0.0291	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.0852	4.0852	2.8000e-004	0.0000	4.0922
<b>Total</b>	<b>3.5000e-003</b>	<b>0.0244</b>	<b>0.0291</b>	<b>5.0000e-005</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>		<b>1.5100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>4.0922</b>

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**3.3 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	0.0104	7.1800e-003	0.0761	2.5000e-004	0.0268	1.8000e-004	0.0270	7.1300e-003	1.6000e-004	7.2900e-003	0.0000	22.6582	22.6582	5.1000e-004	0.0000	22.6709
<b>Total</b>	<b>0.0104</b>	<b>7.1800e-003</b>	<b>0.0761</b>	<b>2.5000e-004</b>	<b>0.0268</b>	<b>1.8000e-004</b>	<b>0.0270</b>	<b>7.1300e-003</b>	<b>1.6000e-004</b>	<b>7.2900e-003</b>	<b>0.0000</b>	<b>22.6582</b>	<b>22.6582</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>22.6709</b>

**3.4 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3290	0.0000	0.3290	0.1512	0.0000	0.1512	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1936	2.1836	1.3902	2.7000e-003		0.0946	0.0946		0.0870	0.0870	0.0000	237.0067	237.0067	0.0767	0.0000	238.9230
<b>Total</b>	<b>0.1936</b>	<b>2.1836</b>	<b>1.3902</b>	<b>2.7000e-003</b>	<b>0.3290</b>	<b>0.0946</b>	<b>0.4235</b>	<b>0.1512</b>	<b>0.0870</b>	<b>0.2382</b>	<b>0.0000</b>	<b>237.0067</b>	<b>237.0067</b>	<b>0.0767</b>	<b>0.0000</b>	<b>238.9230</b>

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**3.4 Grading 2 - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8800e-003	2.0600e-003	0.0214	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	6.0228	6.0228	1.5000e-004	0.0000	6.0265
<b>Total</b>	<b>2.8800e-003</b>	<b>2.0600e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8700e-003</b>	<b>5.0000e-005</b>	<b>6.9200e-003</b>	<b>1.8300e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.0228</b>	<b>6.0228</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>6.0265</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					0.3290	0.0000	0.3290	0.1512	0.0000	0.1512	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1936	2.1836	1.3902	2.7000e-003		0.0946	0.0946		0.0870	0.0870	0.0000	237.0064	237.0064	0.0767	0.0000	238.9227
<b>Total</b>	<b>0.1936</b>	<b>2.1836</b>	<b>1.3902</b>	<b>2.7000e-003</b>	<b>0.3290</b>	<b>0.0946</b>	<b>0.4235</b>	<b>0.1512</b>	<b>0.0870</b>	<b>0.2382</b>	<b>0.0000</b>	<b>237.0064</b>	<b>237.0064</b>	<b>0.0767</b>	<b>0.0000</b>	<b>238.9227</b>

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**3.4 Grading 2 - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8800e-003	2.0600e-003	0.0214	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	6.0228	6.0228	1.5000e-004	0.0000	6.0265
<b>Total</b>	<b>2.8800e-003</b>	<b>2.0600e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8700e-003</b>	<b>5.0000e-005</b>	<b>6.9200e-003</b>	<b>1.8300e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>6.0228</b>	<b>6.0228</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>6.0265</b>

**3.4 Grading 2 - 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					0.1784	0.0000	0.1784	0.0685	0.0000	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0775	0.8584	0.5713	1.1500e-003		0.0367	0.0367		0.0338	0.0338	0.0000	100.8157	100.8157	0.0326	0.0000	101.6309
<b>Total</b>	<b>0.0775</b>	<b>0.8584</b>	<b>0.5713</b>	<b>1.1500e-003</b>	<b>0.1784</b>	<b>0.0367</b>	<b>0.2151</b>	<b>0.0685</b>	<b>0.0338</b>	<b>0.1023</b>	<b>0.0000</b>	<b>100.8157</b>	<b>100.8157</b>	<b>0.0326</b>	<b>0.0000</b>	<b>101.6309</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	1.1400e-003	7.8000e-004	8.3000e-003	3.0000e-005	2.9200e-003	2.0000e-005	2.9400e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4716	2.4716	6.0000e-005	0.0000	2.4730
<b>Total</b>	<b>1.1400e-003</b>	<b>7.8000e-004</b>	<b>8.3000e-003</b>	<b>3.0000e-005</b>	<b>2.9200e-003</b>	<b>2.0000e-005</b>	<b>2.9400e-003</b>	<b>7.8000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4716</b>	<b>2.4716</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.4730</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					0.1784	0.0000	0.1784	0.0685	0.0000	0.0685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0775	0.8584	0.5713	1.1500e-003		0.0367	0.0367		0.0338	0.0338	0.0000	100.8156	100.8156	0.0326	0.0000	101.6307
<b>Total</b>	<b>0.0775</b>	<b>0.8584</b>	<b>0.5713</b>	<b>1.1500e-003</b>	<b>0.1784</b>	<b>0.0367</b>	<b>0.2151</b>	<b>0.0685</b>	<b>0.0338</b>	<b>0.1023</b>	<b>0.0000</b>	<b>100.8156</b>	<b>100.8156</b>	<b>0.0326</b>	<b>0.0000</b>	<b>101.6307</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	1.1400e-003	7.8000e-004	8.3000e-003	3.0000e-005	2.9200e-003	2.0000e-005	2.9400e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4716	2.4716	6.0000e-005	0.0000	2.4730
<b>Total</b>	<b>1.1400e-003</b>	<b>7.8000e-004</b>	<b>8.3000e-003</b>	<b>3.0000e-005</b>	<b>2.9200e-003</b>	<b>2.0000e-005</b>	<b>2.9400e-003</b>	<b>7.8000e-004</b>	<b>2.0000e-005</b>	<b>8.0000e-004</b>	<b>0.0000</b>	<b>2.4716</b>	<b>2.4716</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.4730</b>

**3.5 Paving 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0276	0.2842	0.3224	5.0000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	44.0517	44.0517	0.0143	0.0000	44.4078
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0499</b>	<b>0.2842</b>	<b>0.3224</b>	<b>5.0000e-004</b>		<b>0.0149</b>	<b>0.0149</b>		<b>0.0137</b>	<b>0.0137</b>	<b>0.0000</b>	<b>44.0517</b>	<b>44.0517</b>	<b>0.0143</b>	<b>0.0000</b>	<b>44.4078</b>

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**3.5 Paving 2 - 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	0.0000	0.0000	0.0000	0.0000	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	1.0100e-003	7.0000e-004	7.4000e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6200e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2044	2.2044	5.0000e-005	0.0000	2.2056
<b>Total</b>	<b>1.0100e-003</b>	<b>7.0000e-004</b>	<b>7.4000e-003</b>	<b>2.0000e-005</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>	<b>2.6200e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.2044</b>	<b>2.2044</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.2056</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	0.0276	0.2842	0.3224	5.0000e-004		0.0149	0.0149		0.0137	0.0137	0.0000	44.0516	44.0516	0.0143	0.0000	44.4078
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0499</b>	<b>0.2842</b>	<b>0.3224</b>	<b>5.0000e-004</b>		<b>0.0149</b>	<b>0.0149</b>		<b>0.0137</b>	<b>0.0137</b>	<b>0.0000</b>	<b>44.0516</b>	<b>44.0516</b>	<b>0.0143</b>	<b>0.0000</b>	<b>44.4078</b>



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**3.5 Paving 2 - 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	0.0000	0.0000	0.0000	0.0000	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	1.0100e-003	7.0000e-004	7.4000e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6200e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2044	2.2044	5.0000e-005	0.0000	2.2056
<b>Total</b>	<b>1.0100e-003</b>	<b>7.0000e-004</b>	<b>7.4000e-003</b>	<b>2.0000e-005</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>	<b>2.6200e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.2044</b>	<b>2.2044</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.2056</b>

**3.6 Construction 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4736	208.4736	0.0503	0.0000	209.7309
<b>Total</b>	<b>0.1711</b>	<b>1.5689</b>	<b>1.4918</b>	<b>2.4200e-003</b>		<b>0.0863</b>	<b>0.0863</b>		<b>0.0811</b>	<b>0.0811</b>	<b>0.0000</b>	<b>208.4736</b>	<b>208.4736</b>	<b>0.0503</b>	<b>0.0000</b>	<b>209.7309</b>

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**3.6 Construction 2 - 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	0.1183	3.8918	0.9714	0.0101	0.2443	8.4600e-003	0.2528	0.0707	8.0900e-003	0.0788	0.0000	966.3156	966.3156	0.0475	0.0000	967.5032
Worker	0.2933	0.2024	2.1437	7.0600e-003	0.7553	4.9400e-003	0.7602	0.2009	4.5500e-003	0.2055	0.0000	638.4649	638.4649	0.0143	0.0000	638.8228
<b>Total</b>	<b>0.4116</b>	<b>4.0942</b>	<b>3.1151</b>	<b>0.0171</b>	<b>0.9996</b>	<b>0.0134</b>	<b>1.0130</b>	<b>0.2716</b>	<b>0.0126</b>	<b>0.2842</b>	<b>0.0000</b>	<b>1,604.7804</b>	<b>1,604.7804</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,606.3260</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	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4733	208.4733	0.0503	0.0000	209.7307
<b>Total</b>	<b>0.1711</b>	<b>1.5689</b>	<b>1.4918</b>	<b>2.4200e-003</b>		<b>0.0863</b>	<b>0.0863</b>		<b>0.0811</b>	<b>0.0811</b>	<b>0.0000</b>	<b>208.4733</b>	<b>208.4733</b>	<b>0.0503</b>	<b>0.0000</b>	<b>209.7307</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	0.1183	3.8918	0.9714	0.0101	0.2443	8.4600e-003	0.2528	0.0707	8.0900e-003	0.0788	0.0000	966.3156	966.3156	0.0475	0.0000	967.5032
Worker	0.2933	0.2024	2.1437	7.0600e-003	0.7553	4.9400e-003	0.7602	0.2009	4.5500e-003	0.2055	0.0000	638.4649	638.4649	0.0143	0.0000	638.8228
<b>Total</b>	<b>0.4116</b>	<b>4.0942</b>	<b>3.1151</b>	<b>0.0171</b>	<b>0.9996</b>	<b>0.0134</b>	<b>1.0130</b>	<b>0.2716</b>	<b>0.0126</b>	<b>0.2842</b>	<b>0.0000</b>	<b>1,604.7804</b>	<b>1,604.7804</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,606.3260</b>

**3.6 Construction 2 - 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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
<b>Total</b>	<b>0.2218</b>	<b>2.0300</b>	<b>2.1272</b>	<b>3.5000e-003</b>		<b>0.1052</b>	<b>0.1052</b>		<b>0.0990</b>	<b>0.0990</b>	<b>0.0000</b>	<b>301.2428</b>	<b>301.2428</b>	<b>0.0722</b>	<b>0.0000</b>	<b>303.0471</b>

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**3.6 Construction 2 - 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	0.1594	5.3239	1.3193	0.0144	0.3529	0.0106	0.3636	0.1021	0.0101	0.1122	0.0000	1,382.1028	1,382.1028	0.0656	0.0000	1,383.7422
Worker	0.3949	0.2621	2.8457	9.8200e-003	1.0909	6.9700e-003	1.0979	0.2902	6.4200e-003	0.2966	0.0000	888.4168	888.4168	0.0185	0.0000	888.8804
<b>Total</b>	<b>0.5543</b>	<b>5.5860</b>	<b>4.1650</b>	<b>0.0242</b>	<b>1.4439</b>	<b>0.0176</b>	<b>1.4614</b>	<b>0.3923</b>	<b>0.0166</b>	<b>0.4089</b>	<b>0.0000</b>	<b>2,270.5196</b>	<b>2,270.5196</b>	<b>0.0841</b>	<b>0.0000</b>	<b>2,272.6226</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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
<b>Total</b>	<b>0.2218</b>	<b>2.0300</b>	<b>2.1272</b>	<b>3.5000e-003</b>		<b>0.1052</b>	<b>0.1052</b>		<b>0.0990</b>	<b>0.0990</b>	<b>0.0000</b>	<b>301.2425</b>	<b>301.2425</b>	<b>0.0722</b>	<b>0.0000</b>	<b>303.0467</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	0.1594	5.3239	1.3193	0.0144	0.3529	0.0106	0.3636	0.1021	0.0101	0.1122	0.0000	1,382.1028	1,382.1028	0.0656	0.0000	1,383.7422
Worker	0.3949	0.2621	2.8457	9.8200e-003	1.0909	6.9700e-003	1.0979	0.2902	6.4200e-003	0.2966	0.0000	888.4168	888.4168	0.0185	0.0000	888.8804
<b>Total</b>	<b>0.5543</b>	<b>5.5860</b>	<b>4.1650</b>	<b>0.0242</b>	<b>1.4439</b>	<b>0.0176</b>	<b>1.4614</b>	<b>0.3923</b>	<b>0.0166</b>	<b>0.4089</b>	<b>0.0000</b>	<b>2,270.5196</b>	<b>2,270.5196</b>	<b>0.0841</b>	<b>0.0000</b>	<b>2,272.6226</b>

**3.6 Construction 2 - 2023**

**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	0.1353	1.2371	1.3970	2.3200e-003		0.0602	0.0602		0.0566	0.0566	0.0000	199.3521	199.3521	0.0474	0.0000	200.5377
<b>Total</b>	<b>0.1353</b>	<b>1.2371</b>	<b>1.3970</b>	<b>2.3200e-003</b>		<b>0.0602</b>	<b>0.0602</b>		<b>0.0566</b>	<b>0.0566</b>	<b>0.0000</b>	<b>199.3521</b>	<b>199.3521</b>	<b>0.0474</b>	<b>0.0000</b>	<b>200.5377</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	0.0791	2.7155	0.7813	9.2300e-003	0.2335	3.1200e-003	0.2366	0.0675	2.9900e-003	0.0705	0.0000	888.6899	888.6899	0.0370	0.0000	889.6143
Worker	0.2443	0.1559	1.7316	6.2500e-003	0.7217	4.5200e-003	0.7262	0.1920	4.1600e-003	0.1962	0.0000	565.2137	565.2137	0.0110	0.0000	565.4886
<b>Total</b>	<b>0.3234</b>	<b>2.8714</b>	<b>2.5129</b>	<b>0.0155</b>	<b>0.9552</b>	<b>7.6400e-003</b>	<b>0.9628</b>	<b>0.2595</b>	<b>7.1500e-003</b>	<b>0.2667</b>	<b>0.0000</b>	<b>1,453.9035</b>	<b>1,453.9035</b>	<b>0.0480</b>	<b>0.0000</b>	<b>1,455.1028</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	0.1353	1.2371	1.3970	2.3200e-003		0.0602	0.0602		0.0566	0.0566	0.0000	199.3518	199.3518	0.0474	0.0000	200.5374
<b>Total</b>	<b>0.1353</b>	<b>1.2371</b>	<b>1.3970</b>	<b>2.3200e-003</b>		<b>0.0602</b>	<b>0.0602</b>		<b>0.0566</b>	<b>0.0566</b>	<b>0.0000</b>	<b>199.3518</b>	<b>199.3518</b>	<b>0.0474</b>	<b>0.0000</b>	<b>200.5374</b>

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**3.6 Construction 2 - 2023**

**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	0.0791	2.7155	0.7813	9.2300e-003	0.2335	3.1200e-003	0.2366	0.0675	2.9900e-003	0.0705	0.0000	888.6899	888.6899	0.0370	0.0000	889.6143
Worker	0.2443	0.1559	1.7316	6.2500e-003	0.7217	4.5200e-003	0.7262	0.1920	4.1600e-003	0.1962	0.0000	565.2137	565.2137	0.0110	0.0000	565.4886
<b>Total</b>	<b>0.3234</b>	<b>2.8714</b>	<b>2.5129</b>	<b>0.0155</b>	<b>0.9552</b>	<b>7.6400e-003</b>	<b>0.9628</b>	<b>0.2595</b>	<b>7.1500e-003</b>	<b>0.2667</b>	<b>0.0000</b>	<b>1,453.9035</b>	<b>1,453.9035</b>	<b>0.0480</b>	<b>0.0000</b>	<b>1,455.1028</b>

**3.7 Architectural Coating 2 - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1298	0.1545	2.5000e-004		8.0000e-003	8.0000e-003		8.0000e-003	8.0000e-003	0.0000	21.7027	21.7027	1.4900e-003	0.0000	21.7399
<b>Total</b>	<b>0.0186</b>	<b>0.1298</b>	<b>0.1545</b>	<b>2.5000e-004</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>	<b>0.0000</b>	<b>21.7027</b>	<b>21.7027</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>21.7399</b>

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**3.7 Architectural Coating 2 - 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	0.0000	0.0000	0.0000	0.0000	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	0.0553	0.0382	0.4042	1.3300e-003	0.1424	9.3000e-004	0.1433	0.0379	8.6000e-004	0.0387	0.0000	120.3718	120.3718	2.7000e-003	0.0000	120.4393
<b>Total</b>	<b>0.0553</b>	<b>0.0382</b>	<b>0.4042</b>	<b>1.3300e-003</b>	<b>0.1424</b>	<b>9.3000e-004</b>	<b>0.1433</b>	<b>0.0379</b>	<b>8.6000e-004</b>	<b>0.0387</b>	<b>0.0000</b>	<b>120.3718</b>	<b>120.3718</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>120.4393</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1298	0.1545	2.5000e-004		8.0000e-003	8.0000e-003		8.0000e-003	8.0000e-003	0.0000	21.7026	21.7026	1.4900e-003	0.0000	21.7399
<b>Total</b>	<b>0.0186</b>	<b>0.1298</b>	<b>0.1545</b>	<b>2.5000e-004</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>		<b>8.0000e-003</b>	<b>8.0000e-003</b>	<b>0.0000</b>	<b>21.7026</b>	<b>21.7026</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>21.7399</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	0.0553	0.0382	0.4042	1.3300e-003	0.1424	9.3000e-004	0.1433	0.0379	8.6000e-004	0.0387	0.0000	120.3718	120.3718	2.7000e-003	0.0000	120.4393
<b>Total</b>	<b>0.0553</b>	<b>0.0382</b>	<b>0.4042</b>	<b>1.3300e-003</b>	<b>0.1424</b>	<b>9.3000e-004</b>	<b>0.1433</b>	<b>0.0379</b>	<b>8.6000e-004</b>	<b>0.0387</b>	<b>0.0000</b>	<b>120.3718</b>	<b>120.3718</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>120.4393</b>

**3.7 Architectural Coating 2 - 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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
<b>Total</b>	<b>0.0266</b>	<b>0.1831</b>	<b>0.2358</b>	<b>3.9000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>33.2463</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	0.0788	0.0523	0.5681	1.9600e-003	0.2178	1.3900e-003	0.2192	0.0579	1.2800e-003	0.0592	0.0000	177.3488	177.3488	3.7000e-003	0.0000	177.4413
<b>Total</b>	<b>0.0788</b>	<b>0.0523</b>	<b>0.5681</b>	<b>1.9600e-003</b>	<b>0.2178</b>	<b>1.3900e-003</b>	<b>0.2192</b>	<b>0.0579</b>	<b>1.2800e-003</b>	<b>0.0592</b>	<b>0.0000</b>	<b>177.3488</b>	<b>177.3488</b>	<b>3.7000e-003</b>	<b>0.0000</b>	<b>177.4413</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
<b>Total</b>	<b>0.0266</b>	<b>0.1831</b>	<b>0.2358</b>	<b>3.9000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>33.1923</b>	<b>33.1923</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>33.2463</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	0.0788	0.0523	0.5681	1.9600e-003	0.2178	1.3900e-003	0.2192	0.0579	1.2800e-003	0.0592	0.0000	177.3488	177.3488	3.7000e-003	0.0000	177.4413
<b>Total</b>	<b>0.0788</b>	<b>0.0523</b>	<b>0.5681</b>	<b>1.9600e-003</b>	<b>0.2178</b>	<b>1.3900e-003</b>	<b>0.2192</b>	<b>0.0579</b>	<b>1.2800e-003</b>	<b>0.0592</b>	<b>0.0000</b>	<b>177.3488</b>	<b>177.3488</b>	<b>3.7000e-003</b>	<b>0.0000</b>	<b>177.4413</b>

**3.7 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.1186	0.1648	2.7000e-004		6.4400e-003	6.4400e-003		6.4400e-003	6.4400e-003	0.0000	23.2346	23.2346	1.3900e-003	0.0000	23.2694
<b>Total</b>	<b>0.0174</b>	<b>0.1186</b>	<b>0.1648</b>	<b>2.7000e-004</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>	<b>0.0000</b>	<b>23.2346</b>	<b>23.2346</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>23.2694</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	0.0516	0.0329	0.3658	1.3200e-003	0.1524	9.5000e-004	0.1534	0.0406	8.8000e-004	0.0414	0.0000	119.3897	119.3897	2.3200e-003	0.0000	119.4478
<b>Total</b>	<b>0.0516</b>	<b>0.0329</b>	<b>0.3658</b>	<b>1.3200e-003</b>	<b>0.1524</b>	<b>9.5000e-004</b>	<b>0.1534</b>	<b>0.0406</b>	<b>8.8000e-004</b>	<b>0.0414</b>	<b>0.0000</b>	<b>119.3897</b>	<b>119.3897</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>119.4478</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0174	0.1186	0.1648	2.7000e-004		6.4400e-003	6.4400e-003		6.4400e-003	6.4400e-003	0.0000	23.2346	23.2346	1.3900e-003	0.0000	23.2693
<b>Total</b>	<b>0.0174</b>	<b>0.1186</b>	<b>0.1648</b>	<b>2.7000e-004</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>		<b>6.4400e-003</b>	<b>6.4400e-003</b>	<b>0.0000</b>	<b>23.2346</b>	<b>23.2346</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>23.2693</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	0.0516	0.0329	0.3658	1.3200e-003	0.1524	9.5000e-004	0.1534	0.0406	8.8000e-004	0.0414	0.0000	119.3897	119.3897	2.3200e-003	0.0000	119.4478
<b>Total</b>	<b>0.0516</b>	<b>0.0329</b>	<b>0.3658</b>	<b>1.3200e-003</b>	<b>0.1524</b>	<b>9.5000e-004</b>	<b>0.1534</b>	<b>0.0406</b>	<b>8.8000e-004</b>	<b>0.0414</b>	<b>0.0000</b>	<b>119.3897</b>	<b>119.3897</b>	<b>2.3200e-003</b>	<b>0.0000</b>	<b>119.4478</b>

**3.8 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.1300e-003	0.0000	7.1300e-003	1.0800e-003	0.0000	1.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.7636	0.5003	8.9000e-004		0.0382	0.0382		0.0355	0.0355	0.0000	78.1968	78.1968	0.0221	0.0000	78.7487
<b>Total</b>	<b>0.0762</b>	<b>0.7636</b>	<b>0.5003</b>	<b>8.9000e-004</b>	<b>7.1300e-003</b>	<b>0.0382</b>	<b>0.0453</b>	<b>1.0800e-003</b>	<b>0.0355</b>	<b>0.0365</b>	<b>0.0000</b>	<b>78.1968</b>	<b>78.1968</b>	<b>0.0221</b>	<b>0.0000</b>	<b>78.7487</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	2.8000e-004	9.6500e-003	1.9400e-003	3.0000e-005	5.6000e-004	3.0000e-005	5.9000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.5290	2.5290	1.3000e-004	0.0000	2.5323
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	1.1400e-003	8.2000e-004	8.4700e-003	3.0000e-005	2.7300e-003	2.0000e-005	2.7400e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.3884	2.3884	6.0000e-005	0.0000	2.3898
<b>Total</b>	<b>1.4200e-003</b>	<b>0.0105</b>	<b>0.0104</b>	<b>6.0000e-005</b>	<b>3.2900e-003</b>	<b>5.0000e-005</b>	<b>3.3300e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.9174</b>	<b>4.9174</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.9221</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					7.1300e-003	0.0000	7.1300e-003	1.0800e-003	0.0000	1.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0762	0.7636	0.5003	8.9000e-004		0.0382	0.0382		0.0355	0.0355	0.0000	78.1967	78.1967	0.0221	0.0000	78.7486
<b>Total</b>	<b>0.0762</b>	<b>0.7636</b>	<b>0.5003</b>	<b>8.9000e-004</b>	<b>7.1300e-003</b>	<b>0.0382</b>	<b>0.0453</b>	<b>1.0800e-003</b>	<b>0.0355</b>	<b>0.0365</b>	<b>0.0000</b>	<b>78.1967</b>	<b>78.1967</b>	<b>0.0221</b>	<b>0.0000</b>	<b>78.7486</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	2.8000e-004	9.6500e-003	1.9400e-003	3.0000e-005	5.6000e-004	3.0000e-005	5.9000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.5290	2.5290	1.3000e-004	0.0000	2.5323
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	1.1400e-003	8.2000e-004	8.4700e-003	3.0000e-005	2.7300e-003	2.0000e-005	2.7400e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.3884	2.3884	6.0000e-005	0.0000	2.3898
<b>Total</b>	<b>1.4200e-003</b>	<b>0.0105</b>	<b>0.0104</b>	<b>6.0000e-005</b>	<b>3.2900e-003</b>	<b>5.0000e-005</b>	<b>3.3300e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.9174</b>	<b>4.9174</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.9221</b>

**3.9 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1160	0.0000	0.1160	0.0538	0.0000	0.0538	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0690	0.7781	0.4954	9.6000e-004		0.0337	0.0337		0.0310	0.0310	0.0000	84.4507	84.4507	0.0273	0.0000	85.1335
<b>Total</b>	<b>0.0690</b>	<b>0.7781</b>	<b>0.4954</b>	<b>9.6000e-004</b>	<b>0.1160</b>	<b>0.0337</b>	<b>0.1497</b>	<b>0.0538</b>	<b>0.0310</b>	<b>0.0848</b>	<b>0.0000</b>	<b>84.4507</b>	<b>84.4507</b>	<b>0.0273</b>	<b>0.0000</b>	<b>85.1335</b>

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**3.9 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4568	0.0918	1.2300e-003	0.0264	1.4700e-003	0.0279	7.2600e-003	1.4100e-003	8.6700e-003	0.0000	119.7458	119.7458	6.1600e-003	0.0000	119.8999
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	1.0300e-003	7.4000e-004	7.6100e-003	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1461	2.1461	5.0000e-005	0.0000	2.1474
<b>Total</b>	<b>0.0141</b>	<b>0.4576</b>	<b>0.0994</b>	<b>1.2500e-003</b>	<b>0.0288</b>	<b>1.4900e-003</b>	<b>0.0303</b>	<b>7.9100e-003</b>	<b>1.4300e-003</b>	<b>9.3400e-003</b>	<b>0.0000</b>	<b>121.8919</b>	<b>121.8919</b>	<b>6.2100e-003</b>	<b>0.0000</b>	<b>122.0473</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					0.1160	0.0000	0.1160	0.0538	0.0000	0.0538	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0690	0.7781	0.4954	9.6000e-004		0.0337	0.0337		0.0310	0.0310	0.0000	84.4506	84.4506	0.0273	0.0000	85.1334
<b>Total</b>	<b>0.0690</b>	<b>0.7781</b>	<b>0.4954</b>	<b>9.6000e-004</b>	<b>0.1160</b>	<b>0.0337</b>	<b>0.1497</b>	<b>0.0538</b>	<b>0.0310</b>	<b>0.0848</b>	<b>0.0000</b>	<b>84.4506</b>	<b>84.4506</b>	<b>0.0273</b>	<b>0.0000</b>	<b>85.1334</b>



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**3.9 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4568	0.0918	1.2300e-003	0.0264	1.4700e-003	0.0279	7.2600e-003	1.4100e-003	8.6700e-003	0.0000	119.7458	119.7458	6.1600e-003	0.0000	119.8999
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	1.0300e-003	7.4000e-004	7.6100e-003	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1461	2.1461	5.0000e-005	0.0000	2.1474
<b>Total</b>	<b>0.0141</b>	<b>0.4576</b>	<b>0.0994</b>	<b>1.2500e-003</b>	<b>0.0288</b>	<b>1.4900e-003</b>	<b>0.0303</b>	<b>7.9100e-003</b>	<b>1.4300e-003</b>	<b>9.3400e-003</b>	<b>0.0000</b>	<b>121.8919</b>	<b>121.8919</b>	<b>6.2100e-003</b>	<b>0.0000</b>	<b>122.0473</b>

**3.10 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4600e-003	0.0774	0.0806	1.3000e-004		4.1400e-003	4.1400e-003		3.8100e-003	3.8100e-003	0.0000	11.0155	11.0155	3.5600e-003	0.0000	11.1046
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0297</b>	<b>0.0774</b>	<b>0.0806</b>	<b>1.3000e-004</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>		<b>3.8100e-003</b>	<b>3.8100e-003</b>	<b>0.0000</b>	<b>11.0155</b>	<b>11.0155</b>	<b>3.5600e-003</b>	<b>0.0000</b>	<b>11.1046</b>

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**3.10 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0300e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5711	0.5711	1.0000e-005	0.0000	0.5715
<b>Total</b>	<b>2.7000e-004</b>	<b>2.0000e-004</b>	<b>2.0300e-003</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>6.6000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5711</b>	<b>0.5711</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5715</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	7.4600e-003	0.0774	0.0806	1.3000e-004		4.1400e-003	4.1400e-003		3.8100e-003	3.8100e-003	0.0000	11.0155	11.0155	3.5600e-003	0.0000	11.1046
Paving	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0297</b>	<b>0.0774</b>	<b>0.0806</b>	<b>1.3000e-004</b>		<b>4.1400e-003</b>	<b>4.1400e-003</b>		<b>3.8100e-003</b>	<b>3.8100e-003</b>	<b>0.0000</b>	<b>11.0155</b>	<b>11.0155</b>	<b>3.5600e-003</b>	<b>0.0000</b>	<b>11.1046</b>

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**3.10 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0300e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5711	0.5711	1.0000e-005	0.0000	0.5715
<b>Total</b>	<b>2.7000e-004</b>	<b>2.0000e-004</b>	<b>2.0300e-003</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>6.6000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5711</b>	<b>0.5711</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5715</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	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119
Unmitigated	0.9732	4.5105	11.6626	0.0462	4.3099	0.0374	4.3472	1.1566	0.0349	1.1915	0.0000	4,247.4024	4,247.4024	0.1404	0.0000	4,250.9119

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	8,372,604
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	3,210,002
Total	4,292.92	4,292.92	4,292.92	11,582,607	11,582,607

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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

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	9,728.9785	9,728.9785	0.4399	0.0910	9,767.0995
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9,728.9785	9,728.9785	0.4399	0.0910	9,767.0995
NaturalGas Mitigated	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	1,631.0342	1,631.0342	0.0313	0.0299	1,640.7266
NaturalGas Unmitigated	0.1648	1.4983	1.2585	8.9900e-003		0.1139	0.1139		0.1139	0.1139	0.0000	1,631.0342	1,631.0342	0.0313	0.0299	1,640.7266

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Industrial Park	3.00439e+007	0.1620	1.4727	1.2371	8.8400e-003		0.1119	0.1119		0.1119	0.1119	0.0000	1,603.2583	1,603.2583	0.0307	0.0294	1,612.7857
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
Unrefrigerated Warehouse-No Rail	520500	2.8100e-003	0.0255	0.0214	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7759	27.7759	5.3000e-004	5.1000e-004	27.9409
<b>Total</b>		<b>0.1648</b>	<b>1.4983</b>	<b>1.2585</b>	<b>8.9900e-003</b>		<b>0.1139</b>	<b>0.1139</b>		<b>0.1139</b>	<b>0.1139</b>	<b>0.0000</b>	<b>1,631.0342</b>	<b>1,631.0342</b>	<b>0.0313</b>	<b>0.0299</b>	<b>1,640.7266</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Industrial Park	3.00439e+007	0.1620	1.4727	1.2371	8.8400e-003		0.1119	0.1119		0.1119	0.1119	0.0000	1,603.2583	1,603.2583	0.0307	0.0294	1,612.7857
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
Unrefrigerated Warehouse-No Rail	520500	2.8100e-003	0.0255	0.0214	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7759	27.7759	5.3000e-004	5.1000e-004	27.9409
<b>Total</b>		<b>0.1648</b>	<b>1.4983</b>	<b>1.2585</b>	<b>8.9900e-003</b>		<b>0.1139</b>	<b>0.1139</b>		<b>0.1139</b>	<b>0.1139</b>	<b>0.0000</b>	<b>1,631.0342</b>	<b>1,631.0342</b>	<b>0.0313</b>	<b>0.0299</b>	<b>1,640.7266</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27235e+007	9,519.6327	0.4305	0.0891	9,556.9335
Parking Lot	190120	55.3081	2.5000e-003	5.2000e-004	55.5248
Unrefrigerated Warehouse-No Rail	529500	154.0376	6.9700e-003	1.4400e-003	154.6412
<b>Total</b>		<b>9,728.9785</b>	<b>0.4399</b>	<b>0.0910</b>	<b>9,767.0995</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27235e+007	9,519.6327	0.4305	0.0891	9,556.9335
Parking Lot	190120	55.3081	2.5000e-003	5.2000e-004	55.5248
Unrefrigerated Warehouse-No Rail	529500	154.0376	6.9700e-003	1.4400e-003	154.6412
<b>Total</b>		<b>9,728.9785</b>	<b>0.4399</b>	<b>0.0910</b>	<b>9,767.0995</b>

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**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	7.7916	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
Unmitigated	8.8381	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636



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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	1.0465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8300e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
<b>Total</b>	<b>8.8381</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>0.0000</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0597</b>	<b>0.0597</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0636</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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8300e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0597	0.0597	1.6000e-004	0.0000	0.0636
<b>Total</b>	<b>7.7916</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>0.0000</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0597</b>	<b>0.0597</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0636</b>

**7.0 Water Detail**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	868.3318	14.9925	0.3600	1,350.4220
Unmitigated	868.3318	14.9925	0.3600	1,350.4220

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	424.413 / 0	802.7247	13.8597	0.3328	1,248.3904
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	34.6875 / 0	65.6071	1.1328	0.0272	102.0316
<b>Total</b>		<b>868.3318</b>	<b>14.9925</b>	<b>0.3600</b>	<b>1,350.4220</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	424.413 / 0	802.7247	13.8597	0.3328	1,248.3904
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	34.6875 / 0	65.6071	1.1328	0.0272	102.0316
<b>Total</b>		<b>868.3318</b>	<b>14.9925</b>	<b>0.3600</b>	<b>1,350.4220</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	490.5825	28.9926	0.0000	1,215.3973
Unmitigated	490.5825	28.9926	0.0000	1,215.3973

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	2275.77	461.9607	27.3011	0.0000	1,144.4882
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	141	28.6217	1.6915	0.0000	70.9091
<b>Total</b>		<b>490.5825</b>	<b>28.9926</b>	<b>0.0000</b>	<b>1,215.3973</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	2275.77	461.9607	27.3011	0.0000	1,144.488 2
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	141	28.6217	1.6915	0.0000	70.9091
<b>Total</b>		<b>490.5825</b>	<b>28.9926</b>	<b>0.0000</b>	<b>1,215.397 3</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Annual

## 11.0 Vegetation

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Project Characteristics - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model. Left defaults.

Grading - Matches DEIR's model. See SWAPE comment about material export.

Demolition - See SWAPE comment about demolition.

Trips and VMT - Matches DEIR's model. Left defaults.

Architectural Coating - Matches DEIR's model.

Vehicle Trips - Matches DEIR's model.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment about Tier 4 equipment.

Mobile Land Use Mitigation - See SWAPE comment about mobile mitigation measures.

Area Mitigation - Matches DEIR's model.

Energy Mitigation - See SWAPE comment about Title 24 Energy mitigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00
tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblConstructionPhase	PhaseEndDate	12/4/2020	5/4/2020
tblConstructionPhase	PhaseEndDate	7/29/2022	6/16/2020
tblConstructionPhase	PhaseEndDate	4/20/2035	7/1/2020
tblConstructionPhase	PhaseStartDate	5/22/2021	5/5/2020
tblConstructionPhase	PhaseStartDate	6/17/2034	6/17/2020
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialExported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 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					
2020	13.2211	122.1399	96.1205	0.3013	20.5348	3.7059	24.2407	7.0531	3.4497	10.5028	0.0000	30,395.0106	30,395.0106	3.4696	0.0000	30,481.7513
2021	12.0787	111.5134	90.6047	0.2967	20.5349	3.2009	23.7358	7.0532	2.9752	10.0284	0.0000	29,941.4234	29,941.4234	3.3992	0.0000	30,026.4028
2022	7.2294	60.5286	55.9447	0.2286	13.2681	1.0383	14.3064	3.5827	0.9817	4.5645	0.0000	23,333.2826	23,333.2826	1.3988	0.0000	23,368.2532
2023	6.5119	49.5587	52.4101	0.2220	13.2682	0.8708	14.1390	3.5827	0.8228	4.4056	0.0000	22,669.4796	22,669.4796	1.2858	0.0000	22,701.6244
<b>Maximum</b>	<b>13.2211</b>	<b>122.1399</b>	<b>96.1205</b>	<b>0.3013</b>	<b>20.5349</b>	<b>3.7059</b>	<b>24.2407</b>	<b>7.0532</b>	<b>3.4497</b>	<b>10.5028</b>	<b>0.0000</b>	<b>30,395.0106</b>	<b>30,395.0106</b>	<b>3.4696</b>	<b>0.0000</b>	<b>30,481.7513</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.0042	25,494.0042	0.8690		25,515.7279
<b>Total</b>	<b>54.6415</b>	<b>33.4851</b>	<b>73.9294</b>	<b>0.3009</b>	<b>24.6028</b>	<b>0.8311</b>	<b>25.4338</b>	<b>6.5813</b>	<b>0.8173</b>	<b>7.3986</b>		<b>35,346.2835</b>	<b>35,346.2835</b>	<b>1.0597</b>	<b>0.1806</b>	<b>35,426.5978</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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.0042	25,494.0042	0.8690		25,515.7279
<b>Total</b>	<b>48.9071</b>	<b>33.4851</b>	<b>73.9294</b>	<b>0.3009</b>	<b>24.6028</b>	<b>0.8311</b>	<b>25.4338</b>	<b>6.5813</b>	<b>0.8173</b>	<b>7.3986</b>		<b>35,346.2835</b>	<b>35,346.2835</b>	<b>1.0597</b>	<b>0.1806</b>	<b>35,426.5978</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	10.49	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
2	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
3	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
4	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
5	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
6	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	
7	Demolition	Demolition	3/2/2020	5/4/2020	5	46	
8	Grading	Grading	5/5/2020	6/16/2020	5	31	
9	Paving	Paving	6/17/2020	7/1/2020	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 40.08

Acres of Paving: 17.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Construction 2	Cranes	1	7.00	231	0.29
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Grading 2	Excavators	2	8.00	158	0.38
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74
Grading 2	Graders	1	8.00	187	0.41
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45

**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	6	15.00	0.00	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.6516	47.7082	12.8750	0.1112	2.8023	0.2352	3.0375	0.8067	0.2250	1.0317		11,771.147 8	11,771.147 8	0.6433		11,787.229 6
Worker	3.9044	2.7612	26.7612	0.0806	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,029.414 7	8,029.414 7	0.1964		8,034.324 4
<b>Total</b>	<b>5.5560</b>	<b>50.4693</b>	<b>39.6362</b>	<b>0.1918</b>	<b>11.5264</b>	<b>0.2917</b>	<b>11.8181</b>	<b>3.1207</b>	<b>0.2770</b>	<b>3.3977</b>		<b>19,800.56 25</b>	<b>19,800.56 25</b>	<b>0.8397</b>		<b>19,821.55 40</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2020**

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.6516	47.7082	12.8750	0.1112	2.8023	0.2352	3.0375	0.8067	0.2250	1.0317		11,771.147 8	11,771.147 8	0.6433		11,787.229 6
Worker	3.9044	2.7612	26.7612	0.0806	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,029.414 7	8,029.414 7	0.1964		8,034.324 4
<b>Total</b>	<b>5.5560</b>	<b>50.4693</b>	<b>39.6362</b>	<b>0.1918</b>	<b>11.5264</b>	<b>0.2917</b>	<b>11.8181</b>	<b>3.1207</b>	<b>0.2770</b>	<b>3.3977</b>		<b>19,800.56 25</b>	<b>19,800.56 25</b>	<b>0.8397</b>		<b>19,821.55 40</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2021**

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7794	0.5512	5.3422	0.0161	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,602.8587	1,602.8587	0.0392		1,603.8388
<b>Total</b>	<b>0.7794</b>	<b>0.5512</b>	<b>5.3422</b>	<b>0.0161</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,602.8587</b>	<b>1,602.8587</b>	<b>0.0392</b>		<b>1,603.8388</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Architectural Coating - 2020**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7794	0.5512	5.3422	0.0161	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,602.8587	1,602.8587	0.0392		1,603.8388
<b>Total</b>	<b>0.7794</b>	<b>0.5512</b>	<b>5.3422</b>	<b>0.0161</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,602.8587</b>	<b>1,602.8587</b>	<b>0.0392</b>		<b>1,603.8388</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.3 Architectural Coating - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>		<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0735</b>	<b>0.0520</b>	<b>0.5040</b>	<b>1.5200e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>151.2131</b>	<b>151.2131</b>	<b>3.7000e-003</b>		<b>151.3055</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Grading 2 - 2020**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>	<b>0.0000</b>	<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0735</b>	<b>0.0520</b>	<b>0.5040</b>	<b>1.5200e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>151.2131</b>	<b>151.2131</b>	<b>3.7000e-003</b>		<b>151.3055</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Grading 2 - 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	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>		<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
<b>Total</b>	<b>0.0681</b>	<b>0.0464</b>	<b>0.4596</b>	<b>1.4600e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>145.9073</b>	<b>145.9073</b>	<b>3.3000e-003</b>		<b>145.9899</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.4 Grading 2 - 2021**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>	<b>0.0000</b>	<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0681	0.0464	0.4596	1.4600e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		145.9073	145.9073	3.3000e-003		145.9899
<b>Total</b>	<b>0.0681</b>	<b>0.0464</b>	<b>0.4596</b>	<b>1.4600e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>145.9073</b>	<b>145.9073</b>	<b>3.3000e-003</b>		<b>145.9899</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.5 Paving 2 - 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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
<b>Total</b>	<b>0.0511</b>	<b>0.0348</b>	<b>0.3447</b>	<b>1.1000e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>109.4305</b>	<b>109.4305</b>	<b>2.4800e-003</b>		<b>109.4924</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.5 Paving 2 - 2021**

**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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0511	0.0348	0.3447	1.1000e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		109.4305	109.4305	2.4800e-003		109.4924
<b>Total</b>	<b>0.0511</b>	<b>0.0348</b>	<b>0.3447</b>	<b>1.1000e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>109.4305</b>	<b>109.4305</b>	<b>2.4800e-003</b>		<b>109.4924</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 2021**

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.3600	43.1512	11.5959	0.1101	2.8024	0.0959	2.8983	0.8067	0.0917	0.8984		11,659.3639	11,659.3639	0.6074		11,674.5499
Worker	3.6174	2.4650	24.4060	0.0777	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		7,747.6791	7,747.6791	0.1753		7,752.0619
<b>Total</b>	<b>4.9775</b>	<b>45.6161</b>	<b>36.0019</b>	<b>0.1878</b>	<b>11.5265</b>	<b>0.1508</b>	<b>11.6773</b>	<b>3.1207</b>	<b>0.1423</b>	<b>3.2630</b>		<b>19,407.0430</b>	<b>19,407.0430</b>	<b>0.7828</b>		<b>19,426.6117</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.2683	40.8531	10.9007	0.1089	2.8025	0.0833	2.8858	0.8068	0.0796	0.8864		11,543.9307	11,543.9307	0.5803		11,558.4371
Worker	3.3764	2.2102	22.3962	0.0749	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		7,463.6513	7,463.6513	0.1570		7,467.5754
<b>Total</b>	<b>4.6446</b>	<b>43.0633</b>	<b>33.2969</b>	<b>0.1838</b>	<b>11.5266</b>	<b>0.1369</b>	<b>11.6635</b>	<b>3.1208</b>	<b>0.1290</b>	<b>3.2498</b>		<b>19,007.5819</b>	<b>19,007.5819</b>	<b>0.7372</b>		<b>19,026.0124</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 2022**

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.2683	40.8531	10.9007	0.1089	2.8025	0.0833	2.8858	0.8068	0.0796	0.8864		11,543.9307	11,543.9307	0.5803		11,558.4371
Worker	3.3764	2.2102	22.3962	0.0749	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		7,463.6513	7,463.6513	0.1570		7,467.5754
<b>Total</b>	<b>4.6446</b>	<b>43.0633</b>	<b>33.2969</b>	<b>0.1838</b>	<b>11.5266</b>	<b>0.1369</b>	<b>11.6635</b>	<b>3.1208</b>	<b>0.1290</b>	<b>3.2498</b>		<b>19,007.5819</b>	<b>19,007.5819</b>	<b>0.7372</b>		<b>19,026.0124</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.9534	31.4873	9.6796	0.1058	2.8026	0.0372	2.8398	0.8068	0.0356	0.8424		11,222.1340	11,222.1340	0.4926		11,234.4493
Worker	3.1627	1.9869	20.5692	0.0720	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,177.8259	7,177.8259	0.1405		7,181.3373
<b>Total</b>	<b>4.1161</b>	<b>33.4742</b>	<b>30.2488</b>	<b>0.1778</b>	<b>11.5267</b>	<b>0.0898</b>	<b>11.6164</b>	<b>3.1208</b>	<b>0.0840</b>	<b>3.2048</b>		<b>18,399.9600</b>	<b>18,399.9600</b>	<b>0.6331</b>		<b>18,415.7867</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.6 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.9534	31.4873	9.6796	0.1058	2.8026	0.0372	2.8398	0.8068	0.0356	0.8424		11,222.1340	11,222.1340	0.4926		11,234.4493
Worker	3.1627	1.9869	20.5692	0.0720	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,177.8259	7,177.8259	0.1405		7,181.3373
<b>Total</b>	<b>4.1161</b>	<b>33.4742</b>	<b>30.2488</b>	<b>0.1778</b>	<b>11.5267</b>	<b>0.0898</b>	<b>11.6164</b>	<b>3.1208</b>	<b>0.0840</b>	<b>3.2048</b>		<b>18,399.9600</b>	<b>18,399.9600</b>	<b>0.6331</b>		<b>18,415.7867</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.7221	0.4921	4.8720	0.0155	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,546.6177	1,546.6177	0.0350		1,547.4926
<b>Total</b>	<b>0.7221</b>	<b>0.4921</b>	<b>4.8720</b>	<b>0.0155</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,546.6177</b>	<b>1,546.6177</b>	<b>0.0350</b>		<b>1,547.4926</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6740	0.4412	4.4708	0.0149	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,489.9191	1,489.9191	0.0313		1,490.7024
<b>Total</b>	<b>0.6740</b>	<b>0.4412</b>	<b>4.4708</b>	<b>0.0149</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,489.9191</b>	<b>1,489.9191</b>	<b>0.0313</b>		<b>1,490.7024</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 2022**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6740	0.4412	4.4708	0.0149	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,489.9191	1,489.9191	0.0313		1,490.7024
<b>Total</b>	<b>0.6740</b>	<b>0.4412</b>	<b>4.4708</b>	<b>0.0149</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,489.9191</b>	<b>1,489.9191</b>	<b>0.0313</b>		<b>1,490.7024</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.6314	0.3966	4.1061	0.0144	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,432.8617	1,432.8617	0.0280		1,433.5626
<b>Total</b>	<b>0.6314</b>	<b>0.3966</b>	<b>4.1061</b>	<b>0.0144</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,432.8617</b>	<b>1,432.8617</b>	<b>0.0280</b>		<b>1,433.5626</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.7 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.6314	0.3966	4.1061	0.0144	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,432.8617	1,432.8617	0.0280		1,433.5626
<b>Total</b>	<b>0.6314</b>	<b>0.3966</b>	<b>4.1061</b>	<b>0.0144</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,432.8617</b>	<b>1,432.8617</b>	<b>0.0280</b>		<b>1,433.5626</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.8 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3099	0.0000	0.3099	0.0469	0.0000	0.0469			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3099</b>	<b>1.6587</b>	<b>1.9686</b>	<b>0.0469</b>	<b>1.5419</b>	<b>1.5888</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0122	0.4211	0.0879	1.1200e-003	0.0251	1.3700e-003	0.0264	6.8700e-003	1.3100e-003	8.1800e-003		120.0186	120.0186	6.4100e-003		120.1790
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0673</b>	<b>0.4601</b>	<b>0.4659</b>	<b>2.2600e-003</b>	<b>0.1483</b>	<b>2.1700e-003</b>	<b>0.1505</b>	<b>0.0396</b>	<b>2.0500e-003</b>	<b>0.0416</b>		<b>233.4285</b>	<b>233.4285</b>	<b>9.1800e-003</b>		<b>233.6581</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.8 Demolition - 2020**

**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					0.3099	0.0000	0.3099	0.0469	0.0000	0.0469			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3099</b>	<b>1.6587</b>	<b>1.9686</b>	<b>0.0469</b>	<b>1.5419</b>	<b>1.5888</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0122	0.4211	0.0879	1.1200e-003	0.0251	1.3700e-003	0.0264	6.8700e-003	1.3100e-003	8.1800e-003		120.0186	120.0186	6.4100e-003		120.1790
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0673</b>	<b>0.4601</b>	<b>0.4659</b>	<b>2.2600e-003</b>	<b>0.1483</b>	<b>2.1700e-003</b>	<b>0.1505</b>	<b>0.0396</b>	<b>2.0500e-003</b>	<b>0.0416</b>		<b>233.4285</b>	<b>233.4285</b>	<b>9.1800e-003</b>		<b>233.6581</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>		<b>6,005.8653</b>	<b>6,005.8653</b>	<b>1.9424</b>		<b>6,054.4257</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	0.8546	29.5841	6.1781	0.0789	1.7611	0.0960	1.8571	0.4826	0.0919	0.5745		8,432.3949	8,432.3949	0.4506		8,443.6600
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.9281</b>	<b>29.6361</b>	<b>6.6821</b>	<b>0.0804</b>	<b>1.9254</b>	<b>0.0971</b>	<b>2.0225</b>	<b>0.5262</b>	<b>0.0929</b>	<b>0.6190</b>		<b>8,583.6080</b>	<b>8,583.6080</b>	<b>0.4543</b>		<b>8,594.9656</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.9 Grading - 2020**

**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					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>	<b>0.0000</b>	<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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	0.8546	29.5841	6.1781	0.0789	1.7611	0.0960	1.8571	0.4826	0.0919	0.5745		8,432.394 9	8,432.394 9	0.4506		8,443.660 0
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.9281</b>	<b>29.6361</b>	<b>6.6821</b>	<b>0.0804</b>	<b>1.9254</b>	<b>0.0971</b>	<b>2.0225</b>	<b>0.5262</b>	<b>0.0929</b>	<b>0.6190</b>		<b>8,583.608 0</b>	<b>8,583.608 0</b>	<b>0.4543</b>		<b>8,594.965 6</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0552</b>	<b>0.0390</b>	<b>0.3780</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>113.4098</b>	<b>113.4098</b>	<b>2.7700e-003</b>		<b>113.4792</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**3.10 Paving - 2020**

**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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0552	0.0390	0.3780	1.1400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		113.4098	113.4098	2.7700e-003		113.4792
<b>Total</b>	<b>0.0552</b>	<b>0.0390</b>	<b>0.3780</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>113.4098</b>	<b>113.4098</b>	<b>2.7700e-003</b>		<b>113.4792</b>

**4.0 Operational Detail - Mobile**

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.00 42	25,494.00 42	0.8690		25,515.72 79
Unmitigated	5.2946	25.2723	66.6925	0.2516	24.6028	0.2059	24.8087	6.5813	0.1922	6.7735		25,494.00 42	25,494.00 42	0.8690		25,515.72 79

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	8,372,604
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	3,210,002
<b>Total</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>11,582,607</b>	<b>11,582,607</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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**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	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
NaturalGas Unmitigated	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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					
Industrial Park	82312.1	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1426.03	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</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					
Industrial Park	82.3121	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1.42603	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Unmitigated	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

**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	5.7345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>48.4438</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>42.7094</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>

**7.0 Water Detail**

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****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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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**Oakley Logistics Center (Mitigated)**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	1,835.30	1000sqft	121.35	1,835,304.00	0
Unrefrigerated Warehouse-No Rail	150.00	1000sqft	3.44	150,000.00	0
Parking Lot	1,358.00	Space	17.01	543,200.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

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

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Project Characteristics - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Matches DEIR's model. Left defaults.

Grading - Matches DEIR's model. See SWAPE comment about material export.

Demolition - See SWAPE comment about demolition.

Trips and VMT - Matches DEIR's model. Left defaults.

Architectural Coating - Matches DEIR's model.

Vehicle Trips - Matches DEIR's model.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment about Tier 4 equipment.

Mobile Land Use Mitigation - See SWAPE comment about mobile mitigation measures.

Area Mitigation - Matches DEIR's model.

Energy Mitigation - See SWAPE comment about Title 24 Energy mitigation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	200.00	46.00
tblConstructionPhase	NumDays	310.00	31.00
tblConstructionPhase	NumDays	220.00	11.00
tblConstructionPhase	NumDays	3,100.00	153.00
tblConstructionPhase	NumDays	220.00	153.00
tblConstructionPhase	NumDays	310.00	124.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	3,100.00	612.00
tblConstructionPhase	NumDays	220.00	612.00
tblConstructionPhase	PhaseEndDate	12/4/2020	5/4/2020
tblConstructionPhase	PhaseEndDate	7/29/2022	6/16/2020
tblConstructionPhase	PhaseEndDate	4/20/2035	7/1/2020
tblConstructionPhase	PhaseStartDate	5/22/2021	5/5/2020
tblConstructionPhase	PhaseStartDate	6/17/2034	6/17/2020
tblGrading	AcresOfGrading	77.50	40.08
tblGrading	AcresOfGrading	310.00	126.34
tblGrading	MaterialExported	0.00	25,000.00
tblLandUse	LandUseSquareFeet	1,835,300.00	1,835,304.00
tblLandUse	LotAcreage	42.13	121.35
tblLandUse	LotAcreage	12.22	17.01



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

tblVehicleTrips	ST_TR	2.49	1.74
tblVehicleTrips	ST_TR	1.68	7.33
tblVehicleTrips	SU_TR	0.73	1.74
tblVehicleTrips	SU_TR	1.68	7.33
tblVehicleTrips	WD_TR	6.83	1.74
tblVehicleTrips	WD_TR	1.68	7.33

## 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					
2020	12.8793	120.9708	96.6111	0.3125	20.5348	3.7020	24.2368	7.0531	3.4459	10.4990	0.0000	31,537.9383	31,537.9383	3.4377	0.0000	31,623.8811
2021	11.7556	110.5736	91.1446	0.3076	20.5349	3.1976	23.7326	7.0532	2.9721	10.0253	0.0000	31,052.6952	31,052.6952	3.3687	0.0000	31,136.9122
2022	6.9210	59.7186	56.5002	0.2391	13.2681	1.0354	14.3035	3.5827	0.9789	4.5617	0.0000	24,401.4510	24,401.4510	1.3697	0.0000	24,435.6921
2023	6.2212	48.9536	53.1910	0.2321	13.2682	0.8692	14.1374	3.5827	0.8213	4.4041	0.0000	23,696.4727	23,696.4727	1.2654	0.0000	23,728.1070
<b>Maximum</b>	<b>12.8793</b>	<b>120.9708</b>	<b>96.6111</b>	<b>0.3125</b>	<b>20.5349</b>	<b>3.7020</b>	<b>24.2368</b>	<b>7.0532</b>	<b>3.4459</b>	<b>10.4990</b>	<b>0.0000</b>	<b>31,537.9383</b>	<b>31,537.9383</b>	<b>3.4377</b>	<b>0.0000</b>	<b>31,623.8811</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.1615	27,200.1615	0.8580		27,221.6122
<b>Total</b>	<b>55.4646</b>	<b>32.2225</b>	<b>74.6411</b>	<b>0.3179</b>	<b>24.6028</b>	<b>0.8303</b>	<b>25.4330</b>	<b>6.5813</b>	<b>0.8165</b>	<b>7.3978</b>		<b>37,052.4408</b>	<b>37,052.4408</b>	<b>1.0488</b>	<b>0.1806</b>	<b>37,132.4821</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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Energy	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
Mobile	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.1615	27,200.1615	0.8580		27,221.6122
<b>Total</b>	<b>49.7302</b>	<b>32.2225</b>	<b>74.6411</b>	<b>0.3179</b>	<b>24.6028</b>	<b>0.8303</b>	<b>25.4330</b>	<b>6.5813</b>	<b>0.8165</b>	<b>7.3978</b>		<b>37,052.4408</b>	<b>37,052.4408</b>	<b>1.0488</b>	<b>0.1806</b>	<b>37,132.4821</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	10.34	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	7/2/2020	2/1/2021	5	153	
2	Architectural Coating	Architectural Coating	7/16/2020	2/15/2021	5	153	
3	Grading 2	Grading	9/2/2020	2/22/2021	5	124	
4	Paving 2	Paving	2/23/2021	4/23/2021	5	44	
5	Construction 2	Building Construction	4/24/2021	8/29/2023	5	612	
6	Architectural Coating 2	Architectural Coating	5/8/2021	9/12/2023	5	612	
7	Demolition	Demolition	3/2/2020	5/4/2020	5	46	
8	Grading	Grading	5/5/2020	6/16/2020	5	31	
9	Paving	Paving	6/17/2020	7/1/2020	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 40.08

Acres of Paving: 17.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,977,956; Non-Residential Outdoor: 992,652; Striped Parking Area: 32,592 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Architectural Coating 2	Air Compressors	1	6.00	78	0.48
Construction 2	Cranes	1	7.00	231	0.29
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Grading 2	Excavators	2	8.00	158	0.38
Construction 2	Forklifts	3	8.00	89	0.20
Construction 2	Generator Sets	1	8.00	84	0.74
Grading 2	Graders	1	8.00	187	0.41
Paving 2	Pavers	2	8.00	130	0.42
Paving 2	Paving Equipment	2	8.00	132	0.36
Paving 2	Rollers	2	8.00	80	0.38
Grading 2	Rubber Tired Dozers	1	8.00	247	0.40
Grading 2	Scrapers	2	8.00	367	0.48

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

Construction 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Construction 2	Welders	1	8.00	46	0.45

**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	6	15.00	0.00	66.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	212.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction 2	9	1,062.00	414.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</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
Vendor	1.5695	47.1805	11.2543	0.1140	2.8023	0.2313	3.0336	0.8067	0.2213	1.0279		12,076.7133	12,076.7133	0.5947		12,091.5812
Worker	3.6913	2.2348	28.4939	0.0875	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,716.6470	8,716.6470	0.2100		8,721.8981
<b>Total</b>	<b>5.2608</b>	<b>49.4152</b>	<b>39.7482</b>	<b>0.2015</b>	<b>11.5264</b>	<b>0.2878</b>	<b>11.8142</b>	<b>3.1207</b>	<b>0.2733</b>	<b>3.3940</b>		<b>20,793.3603</b>	<b>20,793.3603</b>	<b>0.8048</b>		<b>20,813.4793</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2020**

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</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
Vendor	1.5695	47.1805	11.2543	0.1140	2.8023	0.2313	3.0336	0.8067	0.2213	1.0279		12,076.71 33	12,076.71 33	0.5947		12,091.58 12
Worker	3.6913	2.2348	28.4939	0.0875	8.7241	0.0565	8.7806	2.3140	0.0520	2.3661		8,716.647 0	8,716.647 0	0.2100		8,721.898 1
<b>Total</b>	<b>5.2608</b>	<b>49.4152</b>	<b>39.7482</b>	<b>0.2015</b>	<b>11.5264</b>	<b>0.2878</b>	<b>11.8142</b>	<b>3.1207</b>	<b>0.2733</b>	<b>3.3940</b>		<b>20,793.36 03</b>	<b>20,793.36 03</b>	<b>0.8048</b>		<b>20,813.47 93</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2021**

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7369	0.4461	5.6881	0.0175	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,740.0463	1,740.0463	0.0419		1,741.0945
<b>Total</b>	<b>0.7369</b>	<b>0.4461</b>	<b>5.6881</b>	<b>0.0175</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,740.0463</b>	<b>1,740.0463</b>	<b>0.0419</b>		<b>1,741.0945</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Architectural Coating - 2020**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>0.2422</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</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
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
Worker	0.7369	0.4461	5.6881	0.0175	1.7415	0.0113	1.7528	0.4619	0.0104	0.4723		1,740.0463	1,740.0463	0.0419		1,741.0945
<b>Total</b>	<b>0.7369</b>	<b>0.4461</b>	<b>5.6881</b>	<b>0.0175</b>	<b>1.7415</b>	<b>0.0113</b>	<b>1.7528</b>	<b>0.4619</b>	<b>0.0104</b>	<b>0.4723</b>		<b>1,740.0463</b>	<b>1,740.0463</b>	<b>0.0419</b>		<b>1,741.0945</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.3 Architectural Coating - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Grading 2 - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>		<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0695</b>	<b>0.0421</b>	<b>0.5366</b>	<b>1.6500e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>164.1553</b>	<b>164.1553</b>	<b>3.9600e-003</b>		<b>164.2542</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Grading 2 - 2020**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.1026</b>	<b>2.1739</b>	<b>9.2765</b>	<b>3.4269</b>	<b>2.0000</b>	<b>5.4269</b>	<b>0.0000</b>	<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0695</b>	<b>0.0421</b>	<b>0.5366</b>	<b>1.6500e-003</b>	<b>0.1643</b>	<b>1.0600e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>9.8000e-004</b>	<b>0.0446</b>		<b>164.1553</b>	<b>164.1553</b>	<b>3.9600e-003</b>		<b>164.2542</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Grading 2 - 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	lb/day										lb/day					
Fugitive Dust					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>		<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
<b>Total</b>	<b>0.0643</b>	<b>0.0376</b>	<b>0.4913</b>	<b>1.5900e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>158.3919</b>	<b>158.3919</b>	<b>3.5400e-003</b>		<b>158.4804</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.4 Grading 2 - 2021**

**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					7.1026	0.0000	7.1026	3.4269	0.0000	3.4269			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>7.1026</b>	<b>1.9853</b>	<b>9.0879</b>	<b>3.4269</b>	<b>1.8265</b>	<b>5.2534</b>	<b>0.0000</b>	<b>6,007.043 4</b>	<b>6,007.043 4</b>	<b>1.9428</b>		<b>6,055.613 4</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
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
Worker	0.0643	0.0376	0.4913	1.5900e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		158.3919	158.3919	3.5400e-003		158.4804
<b>Total</b>	<b>0.0643</b>	<b>0.0376</b>	<b>0.4913</b>	<b>1.5900e-003</b>	<b>0.1643</b>	<b>1.0300e-003</b>	<b>0.1653</b>	<b>0.0436</b>	<b>9.5000e-004</b>	<b>0.0445</b>		<b>158.3919</b>	<b>158.3919</b>	<b>3.5400e-003</b>		<b>158.4804</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.5 Paving 2 - 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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
<b>Total</b>	<b>0.0482</b>	<b>0.0282</b>	<b>0.3685</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>118.7939</b>	<b>118.7939</b>	<b>2.6600e-003</b>		<b>118.8603</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.5 Paving 2 - 2021**

**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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.0129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2684</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</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
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
Worker	0.0482	0.0282	0.3685	1.1900e-003	0.1232	7.8000e-004	0.1240	0.0327	7.1000e-004	0.0334		118.7939	118.7939	2.6600e-003		118.8603
<b>Total</b>	<b>0.0482</b>	<b>0.0282</b>	<b>0.3685</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>7.8000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.1000e-004</b>	<b>0.0334</b>		<b>118.7939</b>	<b>118.7939</b>	<b>2.6600e-003</b>		<b>118.8603</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 2021**

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</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
Vendor	1.2839	42.7832	10.0887	0.1129	2.8024	0.0927	2.8951	0.8067	0.0887	0.8954		11,962.8837	11,962.8837	0.5615		11,976.9203
Worker	3.4147	1.9957	26.0861	0.0844	8.7241	0.0549	8.7790	2.3140	0.0506	2.3646		8,410.6101	8,410.6101	0.1880		8,415.3104
<b>Total</b>	<b>4.6987</b>	<b>44.7789</b>	<b>36.1747</b>	<b>0.1973</b>	<b>11.5265</b>	<b>0.1476</b>	<b>11.6741</b>	<b>3.1207</b>	<b>0.1392</b>	<b>3.2599</b>		<b>20,373.4938</b>	<b>20,373.4938</b>	<b>0.7495</b>		<b>20,392.2307</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.1975	40.5473	9.4881	0.1117	2.8025	0.0803	2.8829	0.8068	0.0768	0.8836		11,846.3823	11,846.3823	0.5368		11,859.8033
Worker	3.1783	1.7899	24.0368	0.0813	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		8,101.9488	8,101.9488	0.1688		8,106.1697
<b>Total</b>	<b>4.3758</b>	<b>42.3372</b>	<b>33.5249</b>	<b>0.1930</b>	<b>11.5266</b>	<b>0.1340</b>	<b>11.6605</b>	<b>3.1208</b>	<b>0.1262</b>	<b>3.2470</b>		<b>19,948.3311</b>	<b>19,948.3311</b>	<b>0.7057</b>		<b>19,965.9730</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 2022**

**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</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
Vendor	1.1975	40.5473	9.4881	0.1117	2.8025	0.0803	2.8829	0.8068	0.0768	0.8836		11,846.3823	11,846.3823	0.5368		11,859.8033
Worker	3.1783	1.7899	24.0368	0.0813	8.7241	0.0536	8.7777	2.3140	0.0494	2.3634		8,101.9488	8,101.9488	0.1688		8,106.1697
<b>Total</b>	<b>4.3758</b>	<b>42.3372</b>	<b>33.5249</b>	<b>0.1930</b>	<b>11.5266</b>	<b>0.1340</b>	<b>11.6605</b>	<b>3.1208</b>	<b>0.1262</b>	<b>3.2470</b>		<b>19,948.3311</b>	<b>19,948.3311</b>	<b>0.7057</b>		<b>19,965.9730</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.8974	31.3345	8.5417	0.1085	2.8026	0.0357	2.8383	0.8068	0.0341	0.8409		11,513.1295	11,513.1295	0.4588		11,524.6001
Worker	2.9671	1.6099	22.1688	0.0781	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,791.3499	7,791.3499	0.1516		7,795.1399
<b>Total</b>	<b>3.8645</b>	<b>32.9444</b>	<b>30.7105</b>	<b>0.1866</b>	<b>11.5267</b>	<b>0.0882</b>	<b>11.6148</b>	<b>3.1208</b>	<b>0.0824</b>	<b>3.2032</b>		<b>19,304.4794</b>	<b>19,304.4794</b>	<b>0.6104</b>		<b>19,319.7400</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.6 Construction 2 - 2023**

**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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</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
Vendor	0.8974	31.3345	8.5417	0.1085	2.8026	0.0357	2.8383	0.8068	0.0341	0.8409		11,513.1295	11,513.1295	0.4588		11,524.6001
Worker	2.9671	1.6099	22.1688	0.0781	8.7241	0.0525	8.7766	2.3140	0.0484	2.3624		7,791.3499	7,791.3499	0.1516		7,795.1399
<b>Total</b>	<b>3.8645</b>	<b>32.9444</b>	<b>30.7105</b>	<b>0.1866</b>	<b>11.5267</b>	<b>0.0882</b>	<b>11.6148</b>	<b>3.1208</b>	<b>0.0824</b>	<b>3.2032</b>		<b>19,304.4794</b>	<b>19,304.4794</b>	<b>0.6104</b>		<b>19,319.7400</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 2021**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</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
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
Worker	0.6817	0.3984	5.2074	0.0168	1.7415	0.0110	1.7525	0.4619	0.0101	0.4720		1,678.9542	1,678.9542	0.0375		1,679.8925
<b>Total</b>	<b>0.6817</b>	<b>0.3984</b>	<b>5.2074</b>	<b>0.0168</b>	<b>1.7415</b>	<b>0.0110</b>	<b>1.7525</b>	<b>0.4619</b>	<b>0.0101</b>	<b>0.4720</b>		<b>1,678.9542</b>	<b>1,678.9542</b>	<b>0.0375</b>		<b>1,679.8925</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 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	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6345	0.3573	4.7983	0.0162	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,617.3382	1,617.3382	0.0337		1,618.1808
<b>Total</b>	<b>0.6345</b>	<b>0.3573</b>	<b>4.7983</b>	<b>0.0162</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,617.3382</b>	<b>1,617.3382</b>	<b>0.0337</b>		<b>1,618.1808</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 2022**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>0.2045</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</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
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
Worker	0.6345	0.3573	4.7983	0.0162	1.7415	0.0107	1.7522	0.4619	9.8600e-003	0.4718		1,617.3382	1,617.3382	0.0337		1,618.1808
<b>Total</b>	<b>0.6345</b>	<b>0.3573</b>	<b>4.7983</b>	<b>0.0162</b>	<b>1.7415</b>	<b>0.0107</b>	<b>1.7522</b>	<b>0.4619</b>	<b>9.8600e-003</b>	<b>0.4718</b>		<b>1,617.3382</b>	<b>1,617.3382</b>	<b>0.0337</b>		<b>1,618.1808</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.5923	0.3214	4.4254	0.0156	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,555.3354	1,555.3354	0.0303		1,556.0920
<b>Total</b>	<b>0.5923</b>	<b>0.3214</b>	<b>4.4254</b>	<b>0.0156</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,555.3354</b>	<b>1,555.3354</b>	<b>0.0303</b>		<b>1,556.0920</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.7 Architectural Coating 2 - 2023**

**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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>0.1917</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</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
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
Worker	0.5923	0.3214	4.4254	0.0156	1.7415	0.0105	1.7520	0.4619	9.6500e-003	0.4716		1,555.3354	1,555.3354	0.0303		1,556.0920
<b>Total</b>	<b>0.5923</b>	<b>0.3214</b>	<b>4.4254</b>	<b>0.0156</b>	<b>1.7415</b>	<b>0.0105</b>	<b>1.7520</b>	<b>0.4619</b>	<b>9.6500e-003</b>	<b>0.4716</b>		<b>1,555.3354</b>	<b>1,555.3354</b>	<b>0.0303</b>		<b>1,556.0920</b>



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.8 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3099	0.0000	0.3099	0.0469	0.0000	0.0469			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3099</b>	<b>1.6587</b>	<b>1.9686</b>	<b>0.0469</b>	<b>1.5419</b>	<b>1.5888</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0118	0.4110	0.0817	1.1400e-003	0.0251	1.3400e-003	0.0264	6.8700e-003	1.2900e-003	8.1500e-003		122.0689	122.0689	6.1100e-003		122.2216
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0640</b>	<b>0.4426</b>	<b>0.4841</b>	<b>2.3800e-003</b>	<b>0.1483</b>	<b>2.1400e-003</b>	<b>0.1504</b>	<b>0.0396</b>	<b>2.0300e-003</b>	<b>0.0416</b>		<b>245.1854</b>	<b>245.1854</b>	<b>9.0800e-003</b>		<b>245.4123</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.8 Demolition - 2020**

**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					0.3099	0.0000	0.3099	0.0469	0.0000	0.0469			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.3099</b>	<b>1.6587</b>	<b>1.9686</b>	<b>0.0469</b>	<b>1.5419</b>	<b>1.5888</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</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	0.0118	0.4110	0.0817	1.1400e-003	0.0251	1.3400e-003	0.0264	6.8700e-003	1.2900e-003	8.1500e-003		122.0689	122.0689	6.1100e-003		122.2216
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0640</b>	<b>0.4426</b>	<b>0.4841</b>	<b>2.3800e-003</b>	<b>0.1483</b>	<b>2.1400e-003</b>	<b>0.1504</b>	<b>0.0396</b>	<b>2.0300e-003</b>	<b>0.0416</b>		<b>245.1854</b>	<b>245.1854</b>	<b>9.0800e-003</b>		<b>245.4123</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>		<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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	0.8318	28.8755	5.7388	0.0802	1.7611	0.0944	1.8555	0.4826	0.0903	0.5729		8,576.447 0	8,576.447 0	0.4290		8,587.173 0
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.9013</b>	<b>28.9176</b>	<b>6.2754</b>	<b>0.0819</b>	<b>1.9254</b>	<b>0.0955</b>	<b>2.0208</b>	<b>0.5262</b>	<b>0.0913</b>	<b>0.6175</b>		<b>8,740.602 3</b>	<b>8,740.602 3</b>	<b>0.4330</b>		<b>8,751.427 2</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.9 Grading - 2020**

**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					7.4844	0.0000	7.4844	3.4721	0.0000	3.4721			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
<b>Total</b>	<b>4.4501</b>	<b>50.1975</b>	<b>31.9583</b>	<b>0.0620</b>	<b>7.4844</b>	<b>2.1739</b>	<b>9.6583</b>	<b>3.4721</b>	<b>2.0000</b>	<b>5.4721</b>	<b>0.0000</b>	<b>6,005.865 3</b>	<b>6,005.865 3</b>	<b>1.9424</b>		<b>6,054.425 7</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	0.8318	28.8755	5.7388	0.0802	1.7611	0.0944	1.8555	0.4826	0.0903	0.5729		8,576.447 0	8,576.447 0	0.4290		8,587.173 0
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.9013</b>	<b>28.9176</b>	<b>6.2754</b>	<b>0.0819</b>	<b>1.9254</b>	<b>0.0955</b>	<b>2.0208</b>	<b>0.5262</b>	<b>0.0913</b>	<b>0.6175</b>		<b>8,740.602 3</b>	<b>8,740.602 3</b>	<b>0.4330</b>		<b>8,751.427 2</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0521</b>	<b>0.0316</b>	<b>0.4025</b>	<b>1.2400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>123.1165</b>	<b>123.1165</b>	<b>2.9700e-003</b>		<b>123.1907</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**3.10 Paving - 2020**

**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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.0515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>5.4080</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</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
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
Worker	0.0521	0.0316	0.4025	1.2400e-003	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		123.1165	123.1165	2.9700e-003		123.1907
<b>Total</b>	<b>0.0521</b>	<b>0.0316</b>	<b>0.4025</b>	<b>1.2400e-003</b>	<b>0.1232</b>	<b>8.0000e-004</b>	<b>0.1240</b>	<b>0.0327</b>	<b>7.4000e-004</b>	<b>0.0334</b>		<b>123.1165</b>	<b>123.1165</b>	<b>2.9700e-003</b>		<b>123.1907</b>

**4.0 Operational Detail - Mobile**

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Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.16 15	27,200.16 15	0.8580		27,221.61 22
Unmitigated	6.1177	24.0098	67.4042	0.2686	24.6028	0.2051	24.8079	6.5813	0.1914	6.7727		27,200.16 15	27,200.16 15	0.8580		27,221.61 22

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	3,193.42	3,193.42	3193.42	8,372,604	8,372,604
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,099.50	1,099.50	1099.50	3,210,002	3,210,002
<b>Total</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>4,292.92</b>	<b>11,582,607</b>	<b>11,582,607</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
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Unrefrigerated Warehouse-No Rail	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**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	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904
NaturalGas Unmitigated	0.9031	8.2096	6.8961	0.0493		0.6239	0.6239		0.6239	0.6239		9,851.5476	9,851.5476	0.1888	0.1806	9,910.0904



Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	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					
Industrial Park	82312.1	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1426.03	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Industrial Park	82.3121	0.8877	8.0698	6.7787	0.0484		0.6133	0.6133		0.6133	0.6133		9,683.7797	9,683.7797	0.1856	0.1775	9,741.3256
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
Unrefrigerated Warehouse-No Rail	1.42603	0.0154	0.1398	0.1174	8.4000e-004		0.0106	0.0106		0.0106	0.0106		167.7679	167.7679	3.2200e-003	3.0800e-003	168.7649
<b>Total</b>		<b>0.9031</b>	<b>8.2096</b>	<b>6.8961</b>	<b>0.0493</b>		<b>0.6239</b>	<b>0.6239</b>		<b>0.6239</b>	<b>0.6239</b>		<b>9,851.5476</b>	<b>9,851.5476</b>	<b>0.1888</b>	<b>0.1806</b>	<b>9,910.0904</b>

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	42.7094	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
Unmitigated	48.4438	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795

Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**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	5.7345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>48.4438</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	42.6779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0315	3.1000e-003	0.3408	3.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.7317	0.7317	1.9100e-003		0.7795
<b>Total</b>	<b>42.7094</b>	<b>3.1000e-003</b>	<b>0.3408</b>	<b>3.0000e-005</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>0.7317</b>	<b>0.7317</b>	<b>1.9100e-003</b>		<b>0.7795</b>

**7.0 Water Detail**

## Oakley Logistics Center (Mitigated) - Bay Area AQMD Air District, Summer

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**Oakley Logistics Center (Off-site Improvements Mitigated)**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	124.80	1000sqft	2.86	124,796.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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 - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment - Matches DEIR's model.

Trips and VMT - Matches DEIR's model.

Grading - Matches DEIR's model.

Energy Use -

Area Mitigation - Matches DEIR's model.

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	6.00	10.00
tblGrading	AcresOfGrading	5.00	2.86
tblGrading	MaterialExported	0.00	20.00
tblLandUse	LandUseSquareFeet	124,800.00	124,796.00
tblLandUse	LotAcreage	2.87	2.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	3.00	2.00

## 2.0 Emissions Summary

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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-2-2020	6-1-2020	0.1942	0.1942
		Highest	0.1942	0.1942

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	0.0108	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0108</b>	<b>1.0000e-005</b>	<b>1.1500e-003</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>0.0000</b>	<b>0.0000</b>	<b>2.2300e-003</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.3800e-003</b>



Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**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	8.1700e-003	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.1700e-003</b>	<b>1.0000e-005</b>	<b>1.1500e-003</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>0.0000</b>	<b>0.0000</b>	<b>2.2300e-003</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.3800e-003</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	24.21	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**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/2/2020	3/13/2020	5	10	

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

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**Acres of Grading (Grading Phase): 2.86**

**Acres of Paving: 2.86**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Pavers	1	8.00	130	0.42
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**3.2 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0617	0.0000	0.0617	0.0333	0.0000	0.0333	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.2060	0.1196	2.3000e-004		9.9800e-003	9.9800e-003		9.2600e-003	9.2600e-003	0.0000	19.8302	19.8302	5.7100e-003	0.0000	19.9730
<b>Total</b>	<b>0.0196</b>	<b>0.2060</b>	<b>0.1196</b>	<b>2.3000e-004</b>	<b>0.0617</b>	<b>9.9800e-003</b>	<b>0.0717</b>	<b>0.0333</b>	<b>9.2600e-003</b>	<b>0.0425</b>	<b>0.0000</b>	<b>19.8302</b>	<b>19.8302</b>	<b>5.7100e-003</b>	<b>0.0000</b>	<b>19.9730</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	1.0000e-005	2.9000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0766	0.0766	0.0000	0.0000	0.0767
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6923	0.6923	2.0000e-005	0.0000	0.6927
<b>Total</b>	<b>3.4000e-004</b>	<b>5.3000e-004</b>	<b>2.5200e-003</b>	<b>1.0000e-005</b>	<b>8.1000e-004</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7689</b>	<b>0.7689</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7694</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**3.2 Grading - 2020**

**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					0.0617	0.0000	0.0617	0.0333	0.0000	0.0333	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.2060	0.1196	2.3000e-004		9.9800e-003	9.9800e-003		9.2600e-003	9.2600e-003	0.0000	19.8301	19.8301	5.7100e-003	0.0000	19.9730
<b>Total</b>	<b>0.0196</b>	<b>0.2060</b>	<b>0.1196</b>	<b>2.3000e-004</b>	<b>0.0617</b>	<b>9.9800e-003</b>	<b>0.0717</b>	<b>0.0333</b>	<b>9.2600e-003</b>	<b>0.0425</b>	<b>0.0000</b>	<b>19.8301</b>	<b>19.8301</b>	<b>5.7100e-003</b>	<b>0.0000</b>	<b>19.9730</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.9000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0766	0.0766	0.0000	0.0000	0.0767
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6923	0.6923	2.0000e-005	0.0000	0.6927
<b>Total</b>	<b>3.4000e-004</b>	<b>5.3000e-004</b>	<b>2.5200e-003</b>	<b>1.0000e-005</b>	<b>8.1000e-004</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7689</b>	<b>0.7689</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7694</b>

**4.0 Operational Detail - Mobile**

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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	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
Other Non-Asphalt Surfaces	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749





Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	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	8.1700e-003	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Unmitigated	0.0108	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
<b>Total</b>	<b>0.0108</b>	<b>1.0000e-005</b>	<b>1.1500e-003</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>2.2300e-003</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.3800e-003</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
<b>Total</b>	<b>8.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1500e-003</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>2.2300e-003</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.3800e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</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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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Annual

**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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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**Oakley Logistics Center (Off-site Improvements Mitigated)**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	124.80	1000sqft	2.86	124,796.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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 - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment - Matches DEIR's model.

Trips and VMT - Matches DEIR's model.

Grading - Matches DEIR's model.

Energy Use -

Area Mitigation - Matches DEIR's model.

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	6.00	10.00
tblGrading	AcresOfGrading	5.00	2.86
tblGrading	MaterialExported	0.00	20.00
tblLandUse	LandUseSquareFeet	124,800.00	124,796.00
tblLandUse	LotAcreage	2.87	2.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	3.00	2.00

## 2.0 Emissions Summary

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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**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	0.0597	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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>0.0597</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0291</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	0.0454	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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>0.0454</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0291</b>

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	23.92	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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/2/2020	3/13/2020	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.86

Acres of Paving: 2.86

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Pavers	1	8.00	130	0.42
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

#### Trips and VMT

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

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
Grading	8	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3477	0.0000	12.3477	6.6532	0.0000	6.6532			0.0000			0.0000
Off-Road	3.9273	41.1956	23.9198	0.0453		1.9968	1.9968		1.8529	1.8529		4,371.8037	4,371.8037	1.2598		4,403.2986
<b>Total</b>	<b>3.9273</b>	<b>41.1956</b>	<b>23.9198</b>	<b>0.0453</b>	<b>12.3477</b>	<b>1.9968</b>	<b>14.3445</b>	<b>6.6532</b>	<b>1.8529</b>	<b>8.5061</b>		<b>4,371.8037</b>	<b>4,371.8037</b>	<b>1.2598</b>		<b>4,403.2986</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7000e-003	0.0587	0.0123	1.6000e-004	3.4900e-003	1.9000e-004	3.6800e-003	9.6000e-004	1.8000e-004	1.1400e-003		16.7299	16.7299	8.9000e-004		16.7522
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0752</b>	<b>0.1107</b>	<b>0.5162</b>	<b>1.6800e-003</b>	<b>0.1678</b>	<b>1.2500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0457</b>		<b>167.9430</b>	<b>167.9430</b>	<b>4.5900e-003</b>		<b>168.0578</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					12.3477	0.0000	12.3477	6.6532	0.0000	6.6532			0.0000			0.0000
Off-Road	3.9273	41.1956	23.9198	0.0453		1.9968	1.9968		1.8529	1.8529	0.0000	4,371.8037	4,371.8037	1.2598		4,403.2986
<b>Total</b>	<b>3.9273</b>	<b>41.1956</b>	<b>23.9198</b>	<b>0.0453</b>	<b>12.3477</b>	<b>1.9968</b>	<b>14.3445</b>	<b>6.6532</b>	<b>1.8529</b>	<b>8.5061</b>	<b>0.0000</b>	<b>4,371.8037</b>	<b>4,371.8037</b>	<b>1.2598</b>		<b>4,403.2986</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**3.2 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7000e-003	0.0587	0.0123	1.6000e-004	3.4900e-003	1.9000e-004	3.6800e-003	9.6000e-004	1.8000e-004	1.1400e-003		16.7299	16.7299	8.9000e-004		16.7522
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
Worker	0.0735	0.0520	0.5040	1.5200e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		151.2131	151.2131	3.7000e-003		151.3055
<b>Total</b>	<b>0.0752</b>	<b>0.1107</b>	<b>0.5162</b>	<b>1.6800e-003</b>	<b>0.1678</b>	<b>1.2500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0457</b>		<b>167.9430</b>	<b>167.9430</b>	<b>4.5900e-003</b>		<b>168.0578</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	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
Other Non-Asphalt Surfaces	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</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>0.0000</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>



Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**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						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</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>0.0000</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>0.0000</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	lb/day										lb/day					
Mitigated	0.0454	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Unmitigated	0.0597	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**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	0.0143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1800e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
<b>Total</b>	<b>0.0596</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>		<b>0.0291</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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1800e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
<b>Total</b>	<b>0.0454</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>		<b>0.0291</b>

**7.0 Water Detail**

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Winter

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**Oakley Logistics Center (Off-site Improvements Mitigated)**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	124.80	1000sqft	2.86	124,796.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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 - See SWAPE comment about CO2 intensity factor.

Land Use - Matches DEIR's model.

Construction Phase - Matches DEIR's model.

Off-road Equipment - Matches DEIR's model.

Trips and VMT - Matches DEIR's model.

Grading - Matches DEIR's model.

Energy Use -

Area Mitigation - Matches DEIR's model.

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	0
tblConstructionPhase	NumDays	6.00	10.00
tblGrading	AcresOfGrading	5.00	2.86
tblGrading	MaterialExported	0.00	20.00
tblLandUse	LandUseSquareFeet	124,800.00	124,796.00
tblLandUse	LotAcreage	2.87	2.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	3.00	2.00

## 2.0 Emissions Summary

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Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**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	0.0597	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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>0.0597</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0291</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	0.0454	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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>0.0454</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0291</b>

## Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	23.92	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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/2/2020	3/13/2020	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.86

Acres of Paving: 2.86

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Pavers	1	8.00	130	0.42
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

#### Trips and VMT



Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

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
Grading	8	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3477	0.0000	12.3477	6.6532	0.0000	6.6532			0.0000			0.0000
Off-Road	3.9273	41.1956	23.9198	0.0453		1.9968	1.9968		1.8529	1.8529		4,371.8037	4,371.8037	1.2598		4,403.2986
<b>Total</b>	<b>3.9273</b>	<b>41.1956</b>	<b>23.9198</b>	<b>0.0453</b>	<b>12.3477</b>	<b>1.9968</b>	<b>14.3445</b>	<b>6.6532</b>	<b>1.8529</b>	<b>8.5061</b>		<b>4,371.8037</b>	<b>4,371.8037</b>	<b>1.2598</b>		<b>4,403.2986</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6500e-003	0.0573	0.0114	1.6000e-004	3.4900e-003	1.9000e-004	3.6800e-003	9.6000e-004	1.8000e-004	1.1400e-003		17.0157	17.0157	8.5000e-004		17.0370
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0712</b>	<b>0.0994</b>	<b>0.5480</b>	<b>1.8100e-003</b>	<b>0.1678</b>	<b>1.2500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0457</b>		<b>181.1710</b>	<b>181.1710</b>	<b>4.8100e-003</b>		<b>181.2912</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					12.3477	0.0000	12.3477	6.6532	0.0000	6.6532			0.0000			0.0000
Off-Road	3.9273	41.1956	23.9198	0.0453		1.9968	1.9968		1.8529	1.8529	0.0000	4,371.8037	4,371.8037	1.2598		4,403.2986
<b>Total</b>	<b>3.9273</b>	<b>41.1956</b>	<b>23.9198</b>	<b>0.0453</b>	<b>12.3477</b>	<b>1.9968</b>	<b>14.3445</b>	<b>6.6532</b>	<b>1.8529</b>	<b>8.5061</b>	<b>0.0000</b>	<b>4,371.8037</b>	<b>4,371.8037</b>	<b>1.2598</b>		<b>4,403.2986</b>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**3.2 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6500e-003	0.0573	0.0114	1.6000e-004	3.4900e-003	1.9000e-004	3.6800e-003	9.6000e-004	1.8000e-004	1.1400e-003		17.0157	17.0157	8.5000e-004		17.0370
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
Worker	0.0695	0.0421	0.5366	1.6500e-003	0.1643	1.0600e-003	0.1654	0.0436	9.8000e-004	0.0446		164.1553	164.1553	3.9600e-003		164.2542
<b>Total</b>	<b>0.0712</b>	<b>0.0994</b>	<b>0.5480</b>	<b>1.8100e-003</b>	<b>0.1678</b>	<b>1.2500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0457</b>		<b>181.1710</b>	<b>181.1710</b>	<b>4.8100e-003</b>		<b>181.2912</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	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
Other Non-Asphalt Surfaces	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</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>0.0000</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>

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</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>0.0000</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>

**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	lb/day										lb/day					
Mitigated	0.0454	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
Unmitigated	0.0597	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

**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	0.0143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1800e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
<b>Total</b>	<b>0.0596</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>		<b>0.0291</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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0442					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1800e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0273	0.0273	7.0000e-005		0.0291
<b>Total</b>	<b>0.0454</b>	<b>1.2000e-004</b>	<b>0.0127</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0273</b>	<b>0.0273</b>	<b>7.0000e-005</b>		<b>0.0291</b>

**7.0 Water Detail**

Oakley Logistics Center (Off-site Improvements Mitigated) - Bay Area AQMD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****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**

---



Start date and time 11/22/19 14:29:01

AERSCREEN 16216

Oakley\_Construction

Oakley\_Construction

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

\*\* AREADATA \*\*

Emission Rate:	0.221E-02 g/s	0.176E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	853.00 meters	2798.56 feet
Area Source Width:	680.00 meters	2230.97 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	41714	
Dist to Ambient Air:	1.0 meters	3. feet

\*\* BUILDING DATA \*\*

No Building Downwash Parameters

\*\* TERRAIN DATA \*\*

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

\*\* FUMIGATION DATA \*\*

No fumigation requested

\*\* METEOROLOGY DATA \*\*

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u\*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

Oakley\_Construction.out

\*\*\* AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

\*\*\*\*\*

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen\_01\_01.sfc & aerscreen\_01\_01.pfl

Creating met files aerscreen\_02\_01.sfc & aerscreen\_02\_01.pfl

Creating met files aerscreen\_03\_01.sfc & aerscreen\_03\_01.pfl

Creating met files aerscreen\_04\_01.sfc & aerscreen\_04\_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 11/22/19 14:30:35

\*\*\*\*\*

Running AERMOD

Processing Winter

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Spring

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10



\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Summer

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

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***** WARNING MESSAGES *****  
*** NONE ***
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\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*



Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

FLOWSECTOR ended 11/22/19 14:31:20

REFINE started 11/22/19 14:31:20

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

REFINE ended 11/22/19 14:31:24

\*\*\*\*\*

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

\*\*\*\*\*

Ending date and time 11/22/19 14:31:26

Concentration		Distance		Elevation	Diag	Season/Month		Zo sector		Date			
H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	HT
REF	TA	HT											
	0.20475E+00		1.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.20852E+00		25.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.21234E+00		50.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.21604E+00		75.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.21964E+00		100.01	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.22314E+00		125.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.22655E+00		150.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.22987E+00		175.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.23311E+00		200.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.23627E+00		225.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.23935E+00		250.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.24237E+00		275.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.24531E+00		300.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.24819E+00		325.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.25100E+00		350.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0												
	0.25375E+00		375.00	0.00	35.0			Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0	

310.0	2.0											
	0.25644E+00	400.00	0.00	35.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.25906E+00	425.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.26150E+00	450.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.25896E+00	475.00	0.00	30.0		Winter	0-360	10011101				
-1.30	0.043	-9.000	0.020	-999.	104.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.26098E+00	500.00	0.00	35.0		Winter	0-360	10011101				
-1.30	0.043	-9.000	0.020	-999.	104.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
*	0.26880E+00	520.00	0.00	35.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.26390E+00	525.00	0.00	35.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.22913E+00	549.99	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.20460E+00	575.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.18620E+00	600.00	0.00	35.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.18058E+00	625.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.16919E+00	650.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.15988E+00	675.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.15198E+00	700.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.14516E+00	725.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.13915E+00	750.00	0.00	40.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.13378E+00	775.00	0.00	40.0		Winter	0-360	10011001				



0.84846E-01	1200.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.83109E-01	1225.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.81423E-01	1250.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.79782E-01	1275.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.78216E-01	1300.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.76721E-01	1325.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.75288E-01	1350.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.73909E-01	1375.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.72571E-01	1400.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.71285E-01	1425.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.70051E-01	1450.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.68861E-01	1475.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.67712E-01	1500.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.66630E-01	1525.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.65586E-01	1550.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.64571E-01	1575.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.63585E-01	1600.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0

310.0	2.0											
	0.62627E-01	1625.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.61700E-01	1650.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.60800E-01	1675.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.59929E-01	1700.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.59074E-01	1725.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.58234E-01	1750.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.57419E-01	1775.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.56630E-01	1800.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.55860E-01	1825.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.55127E-01	1850.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.54419E-01	1875.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.53722E-01	1899.99	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.53037E-01	1925.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.52362E-01	1950.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.51704E-01	1975.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.51082E-01	2000.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.50480E-01	2025.00	0.00	0.0		Winter	0-360	10011001				



0.41808E-01	2450.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.41380E-01	2475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.40963E-01	2500.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.40551E-01	2525.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.40136E-01	2550.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.39725E-01	2575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.39322E-01	2600.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.38928E-01	2625.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.38542E-01	2650.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.38164E-01	2675.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.37793E-01	2700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.37430E-01	2725.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.37075E-01	2750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.36718E-01	2775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.36367E-01	2800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.36023E-01	2825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.35686E-01	2850.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0



310.0	2.0											
	0.35355E-01	2875.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.35025E-01	2900.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.34701E-01	2925.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.34382E-01	2950.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.34069E-01	2975.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.33762E-01	3000.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.33461E-01	3025.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.33160E-01	3050.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.32861E-01	3075.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.32568E-01	3100.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.32280E-01	3125.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.31997E-01	3150.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.31719E-01	3175.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.31446E-01	3200.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.31178E-01	3225.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.30914E-01	3250.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.30655E-01	3275.00	0.00	0.0		Winter	0-360	10011001				



0.26697E-01	3700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.26494E-01	3725.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.26295E-01	3750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.26098E-01	3775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.25901E-01	3800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.25703E-01	3825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.25506E-01	3850.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.25313E-01	3875.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.25122E-01	3900.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24934E-01	3925.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24748E-01	3950.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24566E-01	3975.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24387E-01	4000.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24210E-01	4025.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.24036E-01	4050.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.23862E-01	4075.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.23690E-01	4100.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0

310.0	2.0											
	0.23522E-01	4125.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.23356E-01	4150.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.23193E-01	4175.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.23032E-01	4200.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22873E-01	4225.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22716E-01	4250.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22561E-01	4275.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22409E-01	4300.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22254E-01	4325.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.22102E-01	4350.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21952E-01	4375.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21803E-01	4400.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21657E-01	4425.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21512E-01	4450.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21369E-01	4475.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21225E-01	4500.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.21084E-01	4525.00	0.00	0.0		Winter	0-360	10011001				



0.18925E-01	4950.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.18810E-01	4975.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.18695E-01	5000.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					

Start date and time 11/22/19 14:33:58

AERSCREEN 16216

Oakley\_Operational

Oakley\_Operational

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

\*\* AREADATA \*\*

Emission Rate:	0.435E-02 g/s	0.345E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	853.00 meters	2798.56 feet
Area Source Width:	680.00 meters	2230.97 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	41714	
Dist to Ambient Air:	1.0 meters	3. feet

\*\* BUILDING DATA \*\*

No Building Downwash Parameters

\*\* TERRAIN DATA \*\*

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

\*\* FUMIGATION DATA \*\*

No fumigation requested

\*\* METEOROLOGY DATA \*\*

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s



Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u\*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

Oakley\_Operational.out

\*\*\* AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

\*\*\*\*\*

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen\_01\_01.sfc & aerscreen\_01\_01.pfl

Creating met files aerscreen\_02\_01.sfc & aerscreen\_02\_01.pfl

Creating met files aerscreen\_03\_01.sfc & aerscreen\_03\_01.pfl

Creating met files aerscreen\_04\_01.sfc & aerscreen\_04\_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 11/22/19 14:34:57

\*\*\*\*\*

Running AERMOD

Processing Winter

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Spring

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*



\*\*\*\*\*

Running AERMOD

Processing Summer

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 40

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

FLOWSECTOR ended 11/22/19 14:35:42

REFINE started 11/22/19 14:35:42

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

REFINE ended 11/22/19 14:35:45

\*\*\*\*\*

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

\*\*\*\*\*

Ending date and time 11/22/19 14:35:47

Concentration		Distance		Elevation	Diag	Season/Month		Zo sector		Date			
H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	HT
REF	TA	HT											
	0.40263E+00		1.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.41005E+00		25.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.41755E+00		50.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.42483E+00		75.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.43191E+00		100.01	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.43879E+00		125.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.44550E+00		150.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.45203E+00		175.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.45840E+00		200.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.46462E+00		225.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.47068E+00		250.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.47660E+00		275.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.48239E+00		300.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.48805E+00		325.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.49358E+00		350.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		
310.0	2.0												
	0.49899E+00		375.00	0.00	35.0		Winter		0-360		10011001		
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0		



310.0	2.0										
	0.50429E+00	400.00	0.00	35.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.50943E+00	425.00	0.00	30.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.51424E+00	450.00	0.00	30.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.50923E+00	475.00	0.00	30.0	Winter	0-360	10011101				
-1.30	0.043	-9.000	0.020	-999.	104.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.51321E+00	500.00	0.00	35.0	Winter	0-360	10011101				
-1.30	0.043	-9.000	0.020	-999.	104.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
*	0.52858E+00	520.00	0.00	35.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.51895E+00	525.00	0.00	35.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.45058E+00	549.99	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.40233E+00	575.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.36615E+00	600.00	0.00	35.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.35511E+00	625.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.33270E+00	650.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.31439E+00	675.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.29886E+00	700.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.28545E+00	725.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.27362E+00	750.00	0.00	40.0	Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.26307E+00	775.00	0.00	40.0	Winter	0-360	10011001				



0.16685E+00	1200.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.16343E+00	1225.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.16012E+00	1250.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.15689E+00	1275.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.15381E+00	1300.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.15087E+00	1325.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.14805E+00	1350.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.14534E+00	1375.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.14271E+00	1400.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.14018E+00	1425.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.13775E+00	1450.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.13541E+00	1475.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.13315E+00	1500.00	0.00	35.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.13102E+00	1525.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.12897E+00	1550.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.12697E+00	1575.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				
310.0	2.0					
0.12504E+00	1600.00	0.00	30.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50
0.35	0.50	10.0				

310.0	2.0											
	0.12315E+00	1625.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.12133E+00	1650.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11956E+00	1675.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11785E+00	1700.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11617E+00	1725.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11451E+00	1750.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11291E+00	1775.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.11136E+00	1800.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10985E+00	1825.00	0.00	30.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10841E+00	1850.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10701E+00	1875.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10564E+00	1899.99	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10430E+00	1925.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10297E+00	1950.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10167E+00	1975.00	0.00	25.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.10045E+00	2000.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.99267E-01	2025.00	0.00	0.0		Winter	0-360	10011001				



0.82213E-01	2450.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.81373E-01	2475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.80551E-01	2500.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.79741E-01	2525.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.78925E-01	2550.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.78117E-01	2575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.77325E-01	2600.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.76550E-01	2625.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.75791E-01	2650.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.75047E-01	2675.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.74319E-01	2700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.73606E-01	2725.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.72906E-01	2750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.72205E-01	2775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.71515E-01	2800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.70838E-01	2825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0
310.0 2.0						
0.70175E-01	2850.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.				6.0 1.000 1.50	0.35	0.50 10.0

310.0	2.0											
	0.69524E-01	2875.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.68875E-01	2900.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.68237E-01	2925.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.67611E-01	2950.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.66996E-01	2975.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.66393E-01	3000.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.65800E-01	3025.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.65208E-01	3050.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.64621E-01	3075.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.64044E-01	3100.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.63478E-01	3125.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.62921E-01	3150.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.62375E-01	3175.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.61838E-01	3200.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.61310E-01	3225.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.60792E-01	3250.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.60282E-01	3275.00	0.00	0.0		Winter	0-360	10011001				





0.52499E-01	3700.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.52100E-01	3725.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.51707E-01	3750.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.51321E-01	3775.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.50933E-01	3800.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.50543E-01	3825.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.50157E-01	3850.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.49776E-01	3875.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.49401E-01	3900.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.49031E-01	3925.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.48666E-01	3950.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.48308E-01	3975.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.47957E-01	4000.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.47608E-01	4025.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.47265E-01	4050.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.46924E-01	4075.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.46586E-01	4100.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0

310.0	2.0											
	0.46255E-01	4125.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.45929E-01	4150.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.45608E-01	4175.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.45291E-01	4200.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.44979E-01	4225.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.44670E-01	4250.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.44366E-01	4275.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.44066E-01	4300.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.43762E-01	4325.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.43463E-01	4350.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.43167E-01	4375.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.42875E-01	4400.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.42588E-01	4425.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.42303E-01	4450.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.42021E-01	4475.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.41739E-01	4500.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
	0.41460E-01	4525.00	0.00	0.0		Winter	0-360	10011001				



0.37216E-01	4950.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.36988E-01	4975.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					
0.36762E-01	5000.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50 0.35 0.50 10.0
310.0	2.0					



Technical Consultation, Data Analysis and  
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**Geologic and Hydrogeologic Characterization  
Industrial Stormwater Compliance  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

### **Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

### **Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.



- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### **Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.



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## ***Paul Rosenfeld, Ph.D.***

**Chemical Fate and Transport & Air Dispersion Modeling**

*Principal Environmental Chemist*

**Risk Assessment & Remediation Specialist**

### **Education:**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on VOC filtration.  
M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.  
B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

### **Professional Experience:**

Dr. Rosenfeld is the Co-Founder and Principal Environmental Chemist at Soil Water Air Protection Enterprise (SWAPE). His focus is the fate and transport of environmental contaminants, risk assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling, oil spills, boilers, incinerators and other industrial and agricultural sources relating to nuisance and personal injury. His project experience ranges from monitoring and modeling of pollution sources as they relate to human and ecological health. Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing petroleum, chlorinated solvents, pesticides, radioactive waste, PCBs, PAHs, dioxins, furans, volatile organics, semi-volatile organics, perchlorate, heavy metals, asbestos, PFOA, unusual polymers, MtBE, fuel oxygenates and odor. Dr. Rosenfeld has evaluated greenhouse gas emissions using various modeling programs recommended by California Air Quality Management Districts.

### **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist  
Bureau of Land Management, Kremmling Colorado 1990; Scientist

## **Publications:**

Chen, J. A., Zapata, A R., Sutherland, A. J., Molmen, D. R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

**Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

**Rosenfeld, P.E.**, J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

**Rosenfeld, P. E.**, M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing,

**Rosenfeld P.E.**, and Suffet, I.H. (Mel) (2007). Anatomy of an Odor Wheel. *Water Science and Technology*.

**Rosenfeld, P.E.**, Clark, J.J.J., Hensley A.R., Suffet, I.H. (Mel) (2007). The use of an odor wheel classification for evaluation of human health risk criteria for compost facilities. *Water Science And Technology*.

- Rosenfeld, P.E.,** and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.
- Rosenfeld P. E.,** J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.
- Rosenfeld, P.E.,** and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.
- Rosenfeld, P.E.,** and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49( 9), 171-178.
- Rosenfeld, P. E.,** Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.
- Rosenfeld, P.E.,** Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6), Sacramento, CA Publication #442-02-008*.
- Rosenfeld, P.E.,** and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.
- Rosenfeld, P.E.,** and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.
- Rosenfeld, P.E.,** C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.
- Rosenfeld, P.E.,** and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.
- Rosenfeld, P.E.,** and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.
- Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.
- Rosenfeld, P. E.** (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).
- Rosenfeld, P. E.** (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).
- Rosenfeld, P. E.** (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.
- Rosenfeld, P. E.** (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.
- Rosenfeld, P. E.** (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.



## **Presentations:**

**Rosenfeld, P.E.**, Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

**Rosenfeld, P.E.** (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

**Rosenfeld, P.E.** (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States” Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E.**, Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference Orlando, FL*.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association.* Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association.* Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association.* Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E.** and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference.* Lecture conducted from Indianapolis, Maryland.

**Rosenfeld, P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

**Rosenfeld, P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association.* Lecture conducted from Sacramento California.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings.* Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America.* Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.,** C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings.* Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America.* Lecture conducted from Anaheim California.

## **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 2010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

## **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993.

## **Deposition and/or Trial Testimony:**

- In The Superior Court of the State of California, County of Alameda  
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants  
Case No.: RG14711115  
Rosenfeld Deposition, September, 2015
- In The Iowa District Court In And For Poweshiek County  
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants  
Case No.: LALA002187  
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County  
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants  
Law No.: LALA105144 - Division A  
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County  
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants  
Law No.: LALA105144 - Division A  
Rosenfeld Deposition, August 2015
- In The Circuit Court of Ohio County, West Virginia  
Robert Andrews, et al. v. Antero, et al.  
Civil Action NO. 14-C-30000  
Rosenfeld Deposition, June 2015
- In The Third Judicial District County of Dona Ana, New Mexico  
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward  
DeRuyter, Defendants  
Rosenfeld Deposition: July 2015
- In The Iowa District Court For Muscatine County  
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant  
Case No 4980  
Rosenfeld Deposition: May 2015
- In the Circuit Court of the 17<sup>th</sup> Judicial Circuit, in and For Broward County, Florida  
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.  
Case Number CACE07030358 (26)  
Rosenfeld Deposition: December 2014
- In the United States District Court Western District of Oklahoma  
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City  
Landfill, et al. Defendants.  
Case No. 5:12-cv-01152-C  
Rosenfeld Deposition: July 2014
- In the County Court of Dallas County Texas  
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.  
Case Number cc-11-01650-E  
Rosenfeld Deposition: March and September 2013  
Rosenfeld Trial: April 2014
- In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*  
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)  
Rosenfeld Deposition: October 2012

In the Court of Common Pleas for the Second Judicial Circuit, State of South Carolina, County of Aiken  
David Anderson, et al., *Plaintiffs*, vs. Norfolk Southern Corporation, et al., *Defendants*.  
Case Number: 2007-CP-02-1584

In the Circuit Court of Jefferson County Alabama  
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*  
Civil Action No. CV 2008-2076  
Rosenfeld Deposition: September 2010

In the Ninth Judicial District Court, Parish of Rapides, State of Louisiana  
Roger Price, et al., *Plaintiffs*, vs. Roy O. Martin, L.P., et al., *Defendants*.  
Civil Suit Number 224,041 Division G  
Rosenfeld Deposition: September 2008

In the United States District Court, Western District Lafayette Division  
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 2:07CV1052  
Rosenfeld Deposition: July 2009

In the United States District Court for the Southern District of Ohio  
Carolyn Baker, et al., *Plaintiffs*, vs. Chevron Oil Company, et al., *Defendants*.  
Case Number 1:05 CV 227  
Rosenfeld Deposition: July 2008

In the Fourth Judicial District Court, Parish of Calcasieu, State of Louisiana  
Craig Steven Arabie, et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 07-2738 G

In the Fourteenth Judicial District Court, Parish of Calcasieu, State of Louisiana  
Leon B. Brydels, *Plaintiffs*, vs. Conoco, Inc., et al., *Defendants*.  
Case Number 2004-6941 Division A

In the District Court of Tarrant County, Texas, 153<sup>rd</sup> Judicial District  
Linda Faust, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, Witco Chemical Corporation  
A/K/A Witco Corporation, Solvents and Chemicals, Inc. and Koppers Industries, Inc., *Defendants*.  
Case Number 153-212928-05  
Rosenfeld Deposition: December 2006, October 2007  
Rosenfeld Trial: January 2008

In the Superior Court of the State of California in and for the County of San Bernardino  
Leroy Allen, et al., *Plaintiffs*, vs. Nutro Products, Inc., a California Corporation and DOES 1 to 100,  
inclusive, *Defendants*.  
John Loney, Plaintiff, vs. James H. Didion, Sr.; Nutro Products, Inc.; DOES 1 through 20, inclusive,  
*Defendants*.  
Case Number VCVVS044671  
Rosenfeld Deposition: December 2009  
Rosenfeld Trial: March 2010

In the United States District Court for the Middle District of Alabama, Northern Division  
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.  
Civil Action Number 2:09-cv-232-WHA-TFM  
Rosenfeld Deposition: July 2010, June 2011

In the Superior Court of the State of California in and for the County of Los Angeles  
Leslie Hensley and Rick Hensley, *Plaintiffs*, vs. Peter T. Hoss, as trustee on behalf of the Cone Fee Trust; Plains Exploration & Production Company, a Delaware corporation; Rayne Water Conditioning, Inc., a California Corporation; and DOES 1 through 100, *Defendants*.  
Case Number SC094173  
Rosenfeld Deposition: September 2008, October 2008

In the Superior Court of the State of California in and for the County of Santa Barbara, Santa Maria Branch Clifford and Shirley Adelhelm, et al., all individually, *Plaintiffs*, vs. Unocal Corporation, a Delaware Corporation; Union Oil Company of California, a California corporation; Chevron Corporation, a California corporation; ConocoPhillips, a Texas corporation; Kerr-McGee Corporation, an Oklahoma corporation; and DOES 1 through 100, *Defendants*.  
Case Number 1229251 (Consolidated with case number 1231299)  
Rosenfeld Deposition: January 2008

In the United States District Court for Eastern District of Arkansas, Eastern District of Arkansas  
Harry Stephens Farms, Inc, and Harry Stephens, individual and as managing partner of Stephens Partnership, *Plaintiffs*, vs. Helena Chemical Company, and Exxon Mobil Corp., successor to Mobil Chemical Co., *Defendants*.  
Case Number 2:06-CV-00166 JMM (Consolidated with case number 4:07CV00278 JMM)  
Rosenfeld Deposition: July 2010

In the United States District Court for the Western District of Arkansas, Texarkana Division  
Rhonda Brasel, et al., *Plaintiffs*, vs. Weyerhaeuser Company and DOES 1 through 100, *Defendants*.  
Civil Action Number 07-4037  
Rosenfeld Deposition: March 2010  
Rosenfeld Trial: October 2010

In the District Court of Texas 21<sup>st</sup> Judicial District of Burleson County  
Dennis Davis, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, *Defendant*.  
Case Number 25,151  
Rosenfeld Trial: May 2009

In the United States District Court of Southern District of Texas Galveston Division  
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.  
Case 3:10-cv-00622  
Rosenfeld Deposition: February 2012  
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland  
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants  
Case Number: 03-C-12-012487 OT  
Rosenfeld Deposition: September 2013

# Exhibit C





November 19, 2019

Mr. Michael Lozeau  
Lozeau Drury  
1939 Harrison Street, Suite 150  
Oakland, CA 94612

**Subject: Oakley Logistics Center Project DEIR (SCH-2019029113)**  
P19047

Dear Mr. Lozeau:

At your request, I have reviewed traffic matters associated with the Oakley Logistics Center Project (the "Project") Draft Environmental Impact Report (the "DEIR") in the City of Oakley (the "City"). My review is specific to the Transportation section of the DEIR.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and over 50 years professional consulting engineering practice in the traffic and transportation industry. I have both prepared and performed adequacy reviews of numerous transportation and circulation sections of environmental impact reports prepared under the California Environmental Quality Act (CEQA) including those for warehouse and industrial facilities. My professional resume is attached. Findings of my review are summarized below.

The fundamental problem is that transportation section of the DEIR is that it analyzes the vast majority of the 1,985,304 square foot development as general warehouse use, the lowest traffic generating use among the potential uses developable under the PUD zoning proposed for the Project. Consequently, the DEIR fails to comply with CEQA's requirement of a good faith effort to disclose impact. This issue is discussed in detail in the paragraphs that follow.

**The Project Includes a Rezone of the Project Site to Planned Unit Development (PD-1) Designation That Permits Different Uses Than Analyzed in the Transportation and Circulation Analysis Section of the DEIR**

DEIR page 1-2 states that the proposed Project would require a rezone to amend the zoning designation of the 375.7-acre subject property from Specific Plan (SP-3) to

Planned Unit Development (P-1). DEIR page 3-7 states as follows: "For the purpose of this EIR, the buildings are assumed to be capable of accommodating a range of light industrial, warehousing, distribution, e-commerce fulfillment, and light manufacturing uses as set forth in the Planned Unit Development."

However, the DEIR Transportation and Circulation Analysis Section actually evaluates all but 150,000 square feet<sup>1</sup> (all but 7.56 percent) of the almost 1,985,304 square foot Project as general warehouse use.

### **General Warehouse Use Is a Considerably Lower Traffic Generating Use than Many of the Uses Permissible in the P-1 Zoning**

As noted above, the DEIR states at page 3-7 that the buildings are assumed to be capable of accommodating a range of light industrial, warehousing, distribution, e-commerce fulfillment, and light manufacturing uses as set forth in the Planned Unit Development. The DEIR analyzed 1,835,304 square feet of the Project as warehousing use. However, most of the permissible uses generate traffic at rates considerably higher than the trip generation for warehouse use applied to the vast majority of the Project in the DEIR Transportation and Circulation Analysis Section. The tables below compare the trip generation for uses permissible in the P-1 zoning to those for warehouse use per the Institute of Traffic Engineers ("ITE") authoritative publication *Trip Generation, 10<sup>th</sup> Edition* relied upon in the DEIR analysis.

#### **TRIP GENERATION RATE COMPARISON**

<b>Land Use</b>	<b>Units</b>	<b>Daily Rate</b>	<b>AM Pk Rate</b>	<b>PM Pk Rate</b>
150 Warehousing	1,000 Sq. Ft.	1.74	0.17	0.19
110 Light Industrial	1,000 Sq. Ft.	4.96	0.70	0.63
140 Manufacturing	1,000 Sq. Ft.	3.93	0.62	0.67
155 E-Commerce Fulfill	1,000 Sq. Ft.	8.18	0.59	1.37
156 Hi Cube Parcel Hub	1,000 Sq. Ft.	7.75	0.7	0.64

Source: *Trip Generation, 10<sup>th</sup> Edition*.

As evident in the table, all of these other potential uses in the P-1 zoning generate trips at considerably higher trip rates on daily, AM Peak Hour and PM Peak Hour bases than the warehousing rate employed in the DEIR.

### **The Trip Generation of Project Uses Permissible in the P-1 Zoning Is Significantly Greater Than That Estimated in the DEIR Analysis**

<sup>1</sup> The traffic analysis assumes 150,000 square feet of building area would be an e-commerce fulfillment center but treats only 134,404 square feet of the building as such, assuming that 15,526 square feet within the building is storage that generates no traffic. Whether any area within an e-commerce fulfillment building can be considered non-traffic-generating dead storage is debatable, but relative to the major issues of concern here, this is a minor distraction.

To give clear dimension to the disparity of total and peak period trips between the remaining 1,835,304 square feet of uses assumed in the DEIR as warehouse uses and trips if considered at other use types permissible in the P-1 zoning, the table below compiles the totals at trip generation rates for those other uses as detailed in the table above.

**DAILY AND PEAK HOUR TRIP GENERATION COMPARISON**

Land Use	Quantity	Daily Total	AM Pk Tot. <sup>2</sup>	PM Pk Tot.
150 Warehousing	1,835.404	3,193	312	349
110 Light Industrial	1,835.404	9,104	1,285	1,156
140 Manufacturing	1,835.404	7,213	1,138	1,230
155 E-Commerce Fulfill	1,835.404	15,014	1,083	2,515
156 Hi Cube Parcel Hub	1,835.404	14,224	1,285	1,175

The table shows that the alternate permissible uses would generate from 4,020 to 11,821 more daily trips than the assumed warehouse use, 771 to 973 more trips in the AM peak hour and 8807 to 2166 more trips in the PM peak hour than the warehouse use assumed in the analysis. While no one of the permissible uses is likely to fill the total 1,845,404 square feet of the Project that is not specified as e-commerce fulfillment in a 150,000 square foot part of the Project, the disparity in trip totals makes clear that:

- a) Had a reasonable mix of uses been considered in the analysis, the number of traffic impacts disclosed and/or the severity of impacts would be greater.
- b) The DEIR's decision to consider the entire 1,835,404 square feet at the lowest trip generating use permissible in the P-1 zoning is inconsistent with CEQA's demand of a good faith effort to disclose impact.
- c) Had the traffic from a more likely mix of uses in the proposed Project been considered, this would have cast the Reduced Footprint Alternative in an even more favorable light.

**Conclusion**

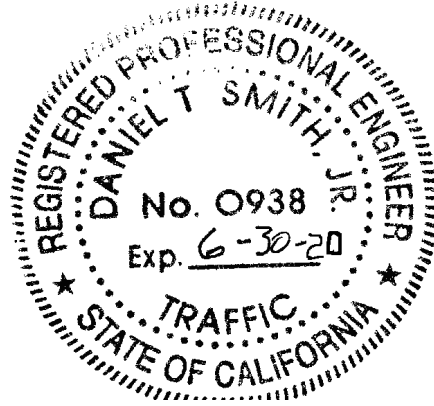
This concludes my current comments on the Oakley Logistic Center DEIR. I am convinced, for the reasons stated above, that the analysis in the Transportation and Circulation section does not meet the requirements of CEQA and that a revised Transportation and Circulation analysis that considers a logical mix of permissible uses must be performed and the DEIR recirculated in draft status.

<sup>2</sup> We note that the column headings for the AM and PM peak hour trip totals in DEIR Table 4.4-4 are mislabeled. The AM and PM trip totals are actually presented in the columns labeled "Out".

Mr. Michael Lozeau  
November 19, 2019  
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Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President

**Attachment 1**  
**Resume of Daniel T. Smith Jr., P.E.**

## **DANIEL T. SMITH, Jr.**

### **President**

#### **EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967  
Master of Science, Transportation Planning, University of California, Berkeley, 1968

#### **PROFESSIONAL REGISTRATION**

California No. 21913 (Civil)                      Nevada No. 7969 (Civil, Ret.)    Washington No. 29337 (Civil, Ret.)  
California No. 938 (Traffic)                      Arizona No. 22131 (Civil, Ret.)

#### **PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present. President.  
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.  
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.  
Personal specialties and project experience include:

**Litigation Consulting.** Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis.** Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.). Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans.** Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

**Transportation Centers.** Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus

Mr. Michael Lozeau

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development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

**Campus Transportation.** Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities.** Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

**Transportation System Management & Traffic Restraint.** Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities.** Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

## MEMBERSHIPS

Institute of Transportation Engineers      Transportation Research Board

## PUBLICATIONS AND AWARDS

*Residential Street Design and Traffic Control*, with W. Homburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report*, U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.