

Appendix A

Air Quality/Energy/Greenhouse Gas Emissions Data

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Annual

City of Gardena - 141st GPA & ZC
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.00	1000sqft	0.11	5,000.00	0
Hotel	126.00	Room	1.00	182,952.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	576.36	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CO2 Intensity factor adjusted to reflect more recent RPS value (note: CalEEMod default factor is from 2012) - factor reduced by 17.9% based on change in eligible renewables from 22% in 2013 to 36% 2018 [702.44 -> 576.36]

Land Use - Land Uses: 126-unit hotel (68,000 sf, w/ assumed 1-acre footprint) and a separate 5,000 sf restaurant (assumed 1-story building). Parking lot/pavement not modeled since already part of existing scenario.

Construction Phase - Architectural Coating phase anticipated to last until end of 2021.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

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Off-road Equipment -

Trips and VMT - Default values used for construction phase trips.

Demolition -

Grading - Assume no material import/export required. Total acres graded would equal assumed building footprints (highly conservative estimate, since existing site is previously graded and paved).

Vehicle Trips - 8.36 trips per dwelling unit for hotel (Hotel - ITE Code 310), and 470.95 trips per ksf, as provided by the Traffic Study prepared by Kittelson & Associates, Inc.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Fleet Mix -

Mobile Land Use Mitigation - 219 jobs over 2 acres = 109 jobs/acre

Energy Use -

Mobile Commute Mitigation - Transit Subsidy mitigation (TRT-4): 27% employees eligible, daily transit subsidy amount >\$2.98

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	12/3/2021	12/31/2021
tblGrading	AcresOfGrading	1.50	1.11
tblGrading	AcresOfGrading	1.00	0.00
tblLandUse	LotAcreage	4.20	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	576.36
tblVehicleTrips	ST_TR	722.03	470.95
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	SU_TR	542.72	470.95
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	WD_TR	496.12	470.95
tblVehicleTrips	WD_TR	8.17	8.36

2.0 Emissions Summary

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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					
2021	1.1087	1.8048	1.7758	4.0500e-003	0.1246	0.0753	0.1999	0.0375	0.0726	0.1101	0.0000	353.0405	353.0405	0.0429	0.0000	354.1132
Maximum	1.1087	1.8048	1.7758	4.0500e-003	0.1246	0.0753	0.1999	0.0375	0.0726	0.1101	0.0000	353.0405	353.0405	0.0429	0.0000	354.1132

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					
2021	1.1087	1.8048	1.7758	4.0500e-003	0.1155	0.0753	0.1908	0.0327	0.0726	0.1052	0.0000	353.0403	353.0403	0.0429	0.0000	354.1130
Maximum	1.1087	1.8048	1.7758	4.0500e-003	0.1155	0.0753	0.1908	0.0327	0.0726	0.1052	0.0000	353.0403	353.0403	0.0429	0.0000	354.1130

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	7.29	0.00	4.54	12.88	0.00	4.40	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-22-2021	4-21-2021	0.6110	0.6110
2	4-22-2021	7-21-2021	0.6215	0.6215
3	7-22-2021	9-30-2021	0.4849	0.4849
		Highest	0.6215	0.6215

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	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003
Energy	0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	883.6397	883.6397	0.0319	0.0124	888.1310
Mobile	0.7748	3.6505	7.6742	0.0245	1.8945	0.0213	1.9158	0.5078	0.0198	0.5277	0.0000	2,267.9919	2,267.9919	0.1310	0.0000	2,271.2673
Waste						0.0000	0.0000		0.0000	0.0000	25.6926	0.0000	25.6926	1.5184	0.0000	63.6523
Water						0.0000	0.0000		0.0000	0.0000	1.4955	17.3595	18.8549	0.1545	3.8100e-003	23.8515
Total	1.5820	4.0212	7.9873	0.0267	1.8945	0.0494	1.9440	0.5078	0.0480	0.5558	27.1881	3,168.9943	3,196.1823	1.8358	0.0162	3,246.9055

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003
Energy	0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	883.6397	883.6397	0.0319	0.0124	888.1310
Mobile	0.7350	3.3811	6.7051	0.0205	1.5434	0.0180	1.5614	0.4137	0.0168	0.4305	0.0000	1,896.7074	1,896.7074	0.1139	0.0000	1,899.5555
Waste						0.0000	0.0000		0.0000	0.0000	25.6926	0.0000	25.6926	1.5184	0.0000	63.6523
Water						0.0000	0.0000		0.0000	0.0000	1.4955	17.3595	18.8549	0.1545	3.8100e-003	23.8515
Total	1.5422	3.7518	7.0182	0.0227	1.5434	0.0462	1.5896	0.4137	0.0450	0.4587	27.1881	2,797.7097	2,824.8978	1.8187	0.0162	2,875.1938

	ROG	NOx	CO	SO2	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	2.52	6.70	12.13	15.07	18.53	6.59	18.23	18.53	6.33	17.48	0.00	11.72	11.62	0.93	0.00	11.45

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	Site Preparation	Site Preparation	1/22/2021	1/25/2021	5	2	
2	Grading	Grading	1/26/2021	1/29/2021	5	4	
3	Building Construction	Building Construction	1/30/2021	11/5/2021	5	200	
4	Paving	Paving	11/6/2021	11/19/2021	5	10	
5	Architectural Coating	Architectural Coating	11/20/2021	12/31/2021	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.11

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 281,928; Non-Residential Outdoor: 93,976; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.2700e-003	0.0000	5.2700e-003	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	5.2700e-003	7.7000e-004	6.0400e-003	2.9000e-003	7.0000e-004	3.6000e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	3.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0791	0.0791	0.0000	0.0000	0.0792
Total	3.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0791	0.0791	0.0000	0.0000	0.0792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0600e-003	0.0000	2.0600e-003	1.1300e-003	0.0000	1.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	2.0600e-003	7.7000e-004	2.8300e-003	1.1300e-003	7.0000e-004	1.8300e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	3.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0791	0.0791	0.0000	0.0000	0.0792
Total	3.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0791	0.0791	0.0000	0.0000	0.0792

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.6200e-003	0.0000	9.6200e-003	5.0300e-003	0.0000	5.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	2.5800e-003	0.0287	0.0127	3.0000e-005	9.6200e-003	1.2800e-003	0.0109	5.0300e-003	1.1700e-003	6.2000e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	5.0000e-005	6.1000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1582	0.1582	0.0000	0.0000	0.1583
Total	7.0000e-005	5.0000e-005	6.1000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1582	0.1582	0.0000	0.0000	0.1583

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					3.7500e-003	0.0000	3.7500e-003	1.9600e-003	0.0000	1.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	2.5800e-003	0.0287	0.0127	3.0000e-005	3.7500e-003	1.2800e-003	5.0300e-003	1.9600e-003	1.1700e-003	3.1300e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	5.0000e-005	6.1000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1582	0.1582	0.0000	0.0000	0.1583
Total	7.0000e-005	5.0000e-005	6.1000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1582	0.1582	0.0000	0.0000	0.1583

3.4 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	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5476	181.5476	0.0324	0.0000	182.3579
Total	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5476	181.5476	0.0324	0.0000	182.3579

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3.4 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	9.6300e-003	0.3059	0.0830	7.9000e-004	0.0195	6.2000e-004	0.0202	5.6400e-003	6.0000e-004	6.2300e-003	0.0000	76.4139	76.4139	4.6900e-003	0.0000	76.5311
Worker	0.0340	0.0265	0.2988	8.6000e-004	0.0866	7.1000e-004	0.0873	0.0230	6.6000e-004	0.0237	0.0000	78.1245	78.1245	2.3000e-003	0.0000	78.1819
Total	0.0436	0.3324	0.3817	1.6500e-003	0.1061	1.3300e-003	0.1074	0.0286	1.2600e-003	0.0299	0.0000	154.5384	154.5384	6.9900e-003	0.0000	154.7130

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	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5474	181.5474	0.0324	0.0000	182.3577
Total	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5474	181.5474	0.0324	0.0000	182.3577

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3.4 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	9.6300e-003	0.3059	0.0830	7.9000e-004	0.0195	6.2000e-004	0.0202	5.6400e-003	6.0000e-004	6.2300e-003	0.0000	76.4139	76.4139	4.6900e-003	0.0000	76.5311
Worker	0.0340	0.0265	0.2988	8.6000e-004	0.0866	7.1000e-004	0.0873	0.0230	6.6000e-004	0.0237	0.0000	78.1245	78.1245	2.3000e-003	0.0000	78.1819
Total	0.0436	0.3324	0.3817	1.6500e-003	0.1061	1.3300e-003	0.1074	0.0286	1.2600e-003	0.0299	0.0000	154.5384	154.5384	6.9900e-003	0.0000	154.7130

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

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3.5 Paving - 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	2.8000e-004	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	2.8000e-004	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433

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	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

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3.5 Paving - 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	2.8000e-004	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	2.8000e-004	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433

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	0.8712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0229	0.0273	4.0000e-005		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	3.8299	3.8299	2.6000e-004	0.0000	3.8365
Total	0.8744	0.0229	0.0273	4.0000e-005		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	3.8299	3.8299	2.6000e-004	0.0000	3.8365

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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	1.0300e-003	8.0000e-004	9.0800e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3734	2.3734	7.0000e-005	0.0000	2.3752
Total	1.0300e-003	8.0000e-004	9.0800e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3734	2.3734	7.0000e-005	0.0000	2.3752

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	0.8712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0229	0.0273	4.0000e-005		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	3.8299	3.8299	2.6000e-004	0.0000	3.8365
Total	0.8744	0.0229	0.0273	4.0000e-005		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	3.8299	3.8299	2.6000e-004	0.0000	3.8365

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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	1.0300e-003	8.0000e-004	9.0800e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3734	2.3734	7.0000e-005	0.0000	2.3752
Total	1.0300e-003	8.0000e-004	9.0800e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3734	2.3734	7.0000e-005	0.0000	2.3752

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Transit Subsidy

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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	0.7350	3.3811	6.7051	0.0205	1.5434	0.0180	1.5614	0.4137	0.0168	0.4305	0.0000	1,896.707 4	1,896.707 4	0.1139	0.0000	1,899.555 5
Unmitigated	0.7748	3.6505	7.6742	0.0245	1.8945	0.0213	1.9158	0.5078	0.0198	0.5277	0.0000	2,267.991 9	2,267.991 9	0.1310	0.0000	2,271.267 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,354.75	2,354.75	2354.75	2,478,110	2,021,788
Hotel	1,053.36	1,053.36	1053.36	2,513,497	2,044,757
Total	3,408.11	3,408.11	3,408.11	4,991,607	4,066,545

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
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Hotel	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	480.0649	480.0649	0.0242	5.0000e-003	482.1580
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	480.0649	480.0649	0.0242	5.0000e-003	482.1580
NaturalGas Mitigated	0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	403.5748	403.5748	7.7400e-003	7.4000e-003	405.9730
NaturalGas Unmitigated	0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	403.5748	403.5748	7.7400e-003	7.4000e-003	405.9730

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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					
Fast Food Restaurant with Drive Thru	1.2966e+006	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003	0.0000	69.1915	69.1915	1.3300e-003	1.2700e-003	69.6027
Hotel	6.26611e+006	0.0338	0.3072	0.2580	1.8400e-003		0.0233	0.0233		0.0233	0.0233	0.0000	334.3833	334.3833	6.4100e-003	6.1300e-003	336.3704
Total		0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	403.5748	403.5748	7.7400e-003	7.4000e-003	405.9730

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					
Fast Food Restaurant with Drive Thru	1.2966e+006	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003	0.0000	69.1915	69.1915	1.3300e-003	1.2700e-003	69.6027
Hotel	6.26611e+006	0.0338	0.3072	0.2580	1.8400e-003		0.0233	0.0233		0.0233	0.0233	0.0000	334.3833	334.3833	6.4100e-003	6.1300e-003	336.3704
Total		0.0408	0.3707	0.3114	2.2200e-003		0.0282	0.0282		0.0282	0.0282	0.0000	403.5748	403.5748	7.7400e-003	7.4000e-003	405.9730

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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			
Fast Food Restaurant with Drive Thru	182400	47.6853	2.4000e-003	5.0000e-004	47.8932
Hotel	1.65389e+006	432.3796	0.0218	4.5000e-003	434.2648
Total		480.0649	0.0242	5.0000e-003	482.1580

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	182400	47.6853	2.4000e-003	5.0000e-004	47.8932
Hotel	1.65389e+006	432.3796	0.0218	4.5000e-003	434.2648
Total		480.0649	0.0242	5.0000e-003	482.1580

6.0 Area Detail**6.1 Mitigation Measures Area**

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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	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003
Unmitigated	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-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	0.0871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6792					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003
Total	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003

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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	0.0871					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6792					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003
Total	0.7664	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2500e-003	3.2500e-003	1.0000e-005	0.0000	3.4700e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.8549	0.1545	3.8100e-003	23.8515
Unmitigated	18.8549	0.1545	3.8100e-003	23.8515

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	1.51767 / 0.0968725	5.9292	0.0497	1.2200e-003	7.5372
Hotel	3.19621 / 0.355135	12.9258	0.1048	2.5800e-003	16.3143
Total		18.8549	0.1545	3.8000e-003	23.8515

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	1.51767 / 0.0968725	5.9292	0.0497	1.2200e-003	7.5372
Hotel	3.19621 / 0.355135	12.9258	0.1048	2.5800e-003	16.3143
Total		18.8549	0.1545	3.8000e-003	23.8515

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.6926	1.5184	0.0000	63.6523
Unmitigated	25.6926	1.5184	0.0000	63.6523

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	57.59	11.6903	0.6909	0.0000	28.9621
Hotel	68.98	14.0023	0.8275	0.0000	34.6902
Total		25.6926	1.5184	0.0000	63.6523

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	57.59	11.6903	0.6909	0.0000	28.9621
Hotel	68.98	14.0023	0.8275	0.0000	34.6902
Total		25.6926	1.5184	0.0000	63.6523

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

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

City of Gardena - 141st GPA & ZC
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.00	1000sqft	0.11	5,000.00	0
Hotel	126.00	Room	1.00	182,952.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	576.36	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

Project Characteristics - CO2 Intensity factor adjusted to reflect more recent RPS value (note: CalEEMod default factor is from 2012) - factor reduced by 17.9% based on change in eligible renewables from 22% in 2013 to 36% 2018 [702.44 -> 576.36]

Land Use - Land Uses: 126-unit hotel (68,000 sf, w/ assumed 1-acre footprint) and a separate 5,000 sf restaurant (assumed 1-story building). Parking lot/pavement not modeled since already part of existing scenario.

Construction Phase - Architectural Coating phase anticipated to last until end of 2021.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment -

Trips and VMT - Default values used for construction phase trips.

Demolition -

Grading - Assume no material import/export required. Total acres graded would equal assumed building footprints (highly conservative estimate, since existing site is previously graded and paved).

Vehicle Trips - 8.36 trips per dwelling unit for hotel (Hotel - ITE Code 310), and 470.95 trips per ksf, as provided by the Traffic Study prepared by Kittelson & Associates, Inc.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Fleet Mix -

Mobile Land Use Mitigation - 219 jobs over 2 acres = 109 jobs/acre

Energy Use -

Mobile Commute Mitigation - Transit Subsidy mitigation (TRT-4): 27% employees eligible, daily transit subsidy amount >\$2.98

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	12/3/2021	12/31/2021
tblGrading	AcresOfGrading	1.50	1.11
tblGrading	AcresOfGrading	1.00	0.00
tblLandUse	LotAcreage	4.20	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	576.36
tblVehicleTrips	ST_TR	722.03	470.95
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	SU_TR	542.72	470.95
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	WD_TR	496.12	470.95
tblVehicleTrips	WD_TR	8.17	8.36

2.0 Emissions Summary

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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					
2021	58.3647	17.4438	16.8681	0.0391	5.3588	0.7661	6.1248	2.9202	0.7048	3.6250	0.0000	3,752.978 1	3,752.978 1	0.5417	0.0000	3,763.827 6
Maximum	58.3647	17.4438	16.8681	0.0391	5.3588	0.7661	6.1248	2.9202	0.7048	3.6250	0.0000	3,752.978 1	3,752.978 1	0.5417	0.0000	3,763.827 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	58.3647	17.4438	16.8681	0.0391	2.1445	0.7661	2.9106	1.1533	0.7048	1.8581	0.0000	3,752.978 1	3,752.978 1	0.5417	0.0000	3,763.827 6
Maximum	58.3647	17.4438	16.8681	0.0391	2.1445	0.7661	2.9106	1.1533	0.7048	1.8581	0.0000	3,752.978 1	3,752.978 1	0.5417	0.0000	3,763.827 6

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	59.98	0.00	52.48	60.50	0.00	48.74	0.00	0.00	0.00	0.00	0.00	0.00

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Energy	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
Mobile	4.5446	19.5648	42.5282	0.1397	10.6144	0.1165	10.7308	2.8406	0.1086	2.9491		14,237.0559	14,237.0559	0.7895		14,256.7942
Total	8.9681	21.5962	44.2479	0.1519	10.6144	0.2709	10.8853	2.8406	0.2630	3.1036		16,674.7013	16,674.7013	0.8363	0.0447	16,708.9270

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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Energy	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
Mobile	4.3221	18.1943	36.8048	0.1167	8.6473	0.0985	8.7458	2.3142	0.0918	2.4060		11,908.0769	11,908.0769	0.6839		11,925.1747
Total	8.7456	20.2258	38.5246	0.1289	8.6473	0.2530	8.9003	2.3142	0.2463	2.5604		14,345.7224	14,345.7224	0.7307	0.0447	14,377.3075

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	2.48	6.35	12.93	15.09	18.53	6.62	18.24	18.53	6.36	17.50	0.00	13.97	13.97	12.63	0.00	13.95

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/22/2021	1/25/2021	5	2	
2	Grading	Grading	1/26/2021	1/29/2021	5	4	
3	Building Construction	Building Construction	1/30/2021	11/5/2021	5	200	
4	Paving	Paving	11/6/2021	11/19/2021	5	10	
5	Architectural Coating	Architectural Coating	11/20/2021	12/31/2021	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.11

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 281,928; Non-Residential Outdoor: 93,976; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390		1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.0550	0.7654	2.8204	1.1296	0.7041	1.8338	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

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3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8109	0.0000	4.8109	2.5145	0.0000	2.5145			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.8109	0.6379	5.4488	2.5145	0.5869	3.1013		1,365.0648	1,365.0648	0.4415		1,376.1020

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

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					1.8762	0.0000	1.8762	0.9806	0.0000	0.9806			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	1.8762	0.6379	2.5141	0.9806	0.5869	1.5675	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

3.4 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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

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3.4 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	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	0.0942	3.0098	0.7868	7.9700e-003	0.1985	6.1500e-003	0.2046	0.0571	5.8900e-003	0.0630		852.1300	852.1300	0.0502		853.3850
Worker	0.3386	0.2328	3.1819	9.0300e-003	0.8830	7.1400e-003	0.8902	0.2342	6.5700e-003	0.2408		899.6282	899.6282	0.0265		900.2909
Total	0.4329	3.2425	3.9687	0.0170	1.0815	0.0133	1.0948	0.2913	0.0125	0.3038		1,751.7581	1,751.7581	0.0767		1,753.6759

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

3.4 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	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	0.0942	3.0098	0.7868	7.9700e-003	0.1985	6.1500e-003	0.2046	0.0571	5.8900e-003	0.0630		852.1300	852.1300	0.0502		853.3850
Worker	0.3386	0.2328	3.1819	9.0300e-003	0.8830	7.1400e-003	0.8902	0.2342	6.5700e-003	0.2408		899.6282	899.6282	0.0265		900.2909
Total	0.4329	3.2425	3.9687	0.0170	1.0815	0.0133	1.0948	0.2913	0.0125	0.3038		1,751.7581	1,751.7581	0.0767		1,753.6759

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

3.5 Paving - 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	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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
Total	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

3.5 Paving - 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	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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
Total	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491

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	58.0772					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
Total	58.2961	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

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	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	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374

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	58.0772					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
Total	58.2961	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

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

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	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	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Transit Subsidy

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	4.3221	18.1943	36.8048	0.1167	8.6473	0.0985	8.7458	2.3142	0.0918	2.4060		11,908.0769	11,908.0769	0.6839		11,925.1747
Unmitigated	4.5446	19.5648	42.5282	0.1397	10.6144	0.1165	10.7308	2.8406	0.1086	2.9491		14,237.0559	14,237.0559	0.7895		14,256.7942

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,354.75	2,354.75	2354.75	2,478,110	2,021,788
Hotel	1,053.36	1,053.36	1053.36	2,513,497	2,044,757
Total	3,408.11	3,408.11	3,408.11	4,991,607	4,066,545

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
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Hotel	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

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	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
NaturalGas Unmitigated	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Summer

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					
Fast Food Restaurant with Drive Thru	3552.33	0.0383	0.3483	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265		417.9210	417.9210	8.0100e-003	7.6600e-003	420.4045
Hotel	17167.4	0.1851	1.6831	1.4138	0.0101		0.1279	0.1279		0.1279	0.1279		2,019.6957	2,019.6957	0.0387	0.0370	2,031.6978
Total		0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

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					
Fast Food Restaurant with Drive Thru	3.55233	0.0383	0.3483	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265		417.9210	417.9210	8.0100e-003	7.6600e-003	420.4045
Hotel	17.1674	0.1851	1.6831	1.4138	0.0101		0.1279	0.1279		0.1279	0.1279		2,019.6957	2,019.6957	0.0387	0.0370	2,031.6978
Total		0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

6.0 Area Detail**6.1 Mitigation Measures Area**

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Unmitigated	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

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	0.4774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.7215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2500e-003	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Total	4.2001	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	0.4774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.7215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2500e-003	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Total	4.2001	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

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**

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

City of Gardena - 141st GPA & ZC
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.00	1000sqft	0.11	5,000.00	0
Hotel	126.00	Room	1.00	182,952.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	576.36	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

Project Characteristics - CO2 Intensity factor adjusted to reflect more recent RPS value (note: CalEEMod default factor is from 2012) - factor reduced by 17.9% based on change in eligible renewables from 22% in 2013 to 36% 2018 [702.44 -> 576.36]

Land Use - Land Uses: 126-unit hotel (68,000 sf, w/ assumed 1-acre footprint) and a separate 5,000 sf restaurant (assumed 1-story building). Parking lot/pavement not modeled since already part of existing scenario.

Construction Phase - Architectural Coating phase anticipated to last until end of 2021.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment -

Trips and VMT - Default values used for construction phase trips.

Demolition -

Grading - Assume no material import/export required. Total acres graded would equal assumed building footprints (highly conservative estimate, since existing site is previously graded and paved).

Vehicle Trips - 8.36 trips per dwelling unit for hotel (Hotel - ITE Code 310), and 470.95 trips per ksf, as provided by the Traffic Study prepared by Kittelson & Associates, Inc.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Fleet Mix -

Mobile Land Use Mitigation - 219 jobs over 2 acres = 109 jobs/acre

Energy Use -

Mobile Commute Mitigation - Transit Subsidy mitigation (TRT-4): 27% employees eligible, daily transit subsidy amount >\$2.98

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	12/3/2021	12/31/2021
tblGrading	AcresOfGrading	1.50	1.11
tblGrading	AcresOfGrading	1.00	0.00
tblLandUse	LotAcreage	4.20	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	576.36
tblVehicleTrips	ST_TR	722.03	470.95
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	SU_TR	542.72	470.95
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	WD_TR	496.12	470.95
tblVehicleTrips	WD_TR	8.17	8.36

2.0 Emissions Summary

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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					
2021	58.3724	17.4464	16.6790	0.0383	5.3588	0.7661	6.1248	2.9202	0.7048	3.6250	0.0000	3,677.0695	3,677.0695	0.5415	0.0000	3,687.9619
Maximum	58.3724	17.4464	16.6790	0.0383	5.3588	0.7661	6.1248	2.9202	0.7048	3.6250	0.0000	3,677.0695	3,677.0695	0.5415	0.0000	3,687.9619

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	58.3724	17.4464	16.6790	0.0383	2.1445	0.7661	2.9106	1.1533	0.7048	1.8581	0.0000	3,677.0695	3,677.0695	0.5415	0.0000	3,687.9619
Maximum	58.3724	17.4464	16.6790	0.0383	2.1445	0.7661	2.9106	1.1533	0.7048	1.8581	0.0000	3,677.0695	3,677.0695	0.5415	0.0000	3,687.9619

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	59.98	0.00	52.48	60.50	0.00	48.74	0.00	0.00	0.00	0.00	0.00	0.00

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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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Energy	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
Mobile	4.4038	19.7113	42.0086	0.1325	10.6144	0.1177	10.7320	2.8406	0.1097	2.9503		13,508.6421	13,508.6421	0.8037		13,528.7346
Total	8.8273	21.7428	43.7283	0.1447	10.6144	0.2721	10.8865	2.8406	0.2641	3.1047		15,946.2875	15,946.2875	0.8505	0.0447	15,980.8674

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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Energy	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
Mobile	4.1868	18.2608	36.8247	0.1107	8.6473	0.0997	8.7470	2.3142	0.0930	2.4071		11,285.6431	11,285.6431	0.7008		11,303.1630
Total	8.6103	20.2922	38.5444	0.1228	8.6473	0.2542	8.9015	2.3142	0.2474	2.5616		13,723.2885	13,723.2885	0.7476	0.0447	13,755.2959

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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
Percent Reduction	2.46	6.67	11.85	15.10	18.53	6.59	18.23	18.53	6.33	17.49	0.00	13.94	13.94	12.10	0.00	13.93

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/22/2021	1/25/2021	5	2	
2	Grading	Grading	1/26/2021	1/29/2021	5	4	
3	Building Construction	Building Construction	1/30/2021	11/5/2021	5	200	
4	Paving	Paving	11/6/2021	11/19/2021	5	10	
5	Architectural Coating	Architectural Coating	11/20/2021	12/31/2021	5	30	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 1.11****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 281,928; Non-Residential Outdoor: 93,976; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390		1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.517 4	1,666.517 4	0.5390		1,679.992 0

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3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.0550	0.7654	2.8204	1.1296	0.7041	1.8338	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

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3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8109	0.0000	4.8109	2.5145	0.0000	2.5145			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.8109	0.6379	5.4488	2.5145	0.5869	3.1013		1,365.0648	1,365.0648	0.4415		1,376.1020

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

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					1.8762	0.0000	1.8762	0.9806	0.0000	0.9806			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	1.8762	0.6379	2.5141	0.9806	0.5869	1.5675	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

3.4 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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

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3.4 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	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	0.0989	3.0036	0.8704	7.7600e-003	0.1985	6.3500e-003	0.2048	0.0571	6.0700e-003	0.0632		828.7711	828.7711	0.0535		830.1087
Worker	0.3767	0.2577	2.9092	8.5000e-003	0.8830	7.1400e-003	0.8902	0.2342	6.5700e-003	0.2408		847.0784	847.0784	0.0249		847.7015
Total	0.4756	3.2612	3.7796	0.0163	1.0815	0.0135	1.0950	0.2913	0.0126	0.3040		1,675.8495	1,675.8495	0.0784		1,677.8102

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

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3.4 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	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	0.0989	3.0036	0.8704	7.7600e-003	0.1985	6.3500e-003	0.2048	0.0571	6.0700e-003	0.0632		828.7711	828.7711	0.0535		830.1087
Worker	0.3767	0.2577	2.9092	8.5000e-003	0.8830	7.1400e-003	0.8902	0.2342	6.5700e-003	0.2408		847.0784	847.0784	0.0249		847.7015
Total	0.4756	3.2612	3.7796	0.0163	1.0815	0.0135	1.0950	0.2913	0.0126	0.3040		1,675.8495	1,675.8495	0.0784		1,677.8102

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

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3.5 Paving - 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	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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
Total	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

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3.5 Paving - 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	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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
Total	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952

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	58.0772					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
Total	58.2961	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

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	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	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864

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	58.0772					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
Total	58.2961	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

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

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	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	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Transit Subsidy

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	4.1868	18.2608	36.8247	0.1107	8.6473	0.0997	8.7470	2.3142	0.0930	2.4071		11,285.6431	11,285.6431	0.7008		11,303.1630
Unmitigated	4.4038	19.7113	42.0086	0.1325	10.6144	0.1177	10.7320	2.8406	0.1097	2.9503		13,508.6421	13,508.6421	0.8037		13,528.7346

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	2,354.75	2,354.75	2354.75	2,478,110	2,021,788
Hotel	1,053.36	1,053.36	1053.36	2,513,497	2,044,757
Total	3,408.11	3,408.11	3,408.11	4,991,607	4,066,545

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
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Hotel	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, Winter

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	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023
NaturalGas Unmitigated	0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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					
Fast Food Restaurant with Drive Thru	3552.33	0.0383	0.3483	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265		417.9210	417.9210	8.0100e-003	7.6600e-003	420.4045
Hotel	17167.4	0.1851	1.6831	1.4138	0.0101		0.1279	0.1279		0.1279	0.1279		2,019.6957	2,019.6957	0.0387	0.0370	2,031.6978
Total		0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

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					
Fast Food Restaurant with Drive Thru	3.55233	0.0383	0.3483	0.2925	2.0900e-003		0.0265	0.0265		0.0265	0.0265		417.9210	417.9210	8.0100e-003	7.6600e-003	420.4045
Hotel	17.1674	0.1851	1.6831	1.4138	0.0101		0.1279	0.1279		0.1279	0.1279		2,019.6957	2,019.6957	0.0387	0.0370	2,031.6978
Total		0.2235	2.0314	1.7063	0.0122		0.1544	0.1544		0.1544	0.1544		2,437.6168	2,437.6168	0.0467	0.0447	2,452.1023

6.0 Area Detail**6.1 Mitigation Measures Area**

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Unmitigated	4.2000	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

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	0.4774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.7215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2500e-003	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Total	4.2001	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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	0.4774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.7215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2500e-003	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306
Total	4.2001	1.2000e-004	0.0134	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0287	0.0287	8.0000e-005		0.0306

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**

City of Gardena - 141st GPA & ZC - Los Angeles-South Coast County, 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

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Yr	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	MPG (Derived)
LOS ANGELES	2020	All Other Buses	Aggregated	Aggregated	DSL	2,343	137,564	14	9.75
LOS ANGELES	2020	LDA	Aggregated	Aggregated	GAS	3,953,775	155,194,410	5,389	28.80
LOS ANGELES	2020	LDA	Aggregated	Aggregated	DSL	31,076	1,254,452	28	44.95
LOS ANGELES	2020	LDA	Aggregated	Aggregated	ELEC	57,357	2,261,367	-	#DIV/0!
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	GAS	437,140	16,649,906	670	24.85
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	DSL	319	7,980	0	21.40
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	ELEC	1,699	63,018	-	#DIV/0!
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	GAS	1,346,079	52,129,905	2,299	22.68
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	DSL	7,213	323,322	10	32.92
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	ELEC	8,126	276,686	-	#DIV/0!
LOS ANGELES	2020	LHD1	Aggregated	Aggregated	GAS	108,459	4,003,593	391	10.25
LOS ANGELES	2020	LHD1	Aggregated	Aggregated	DSL	56,903	2,486,530	118	21.11
LOS ANGELES	2020	LHD2	Aggregated	Aggregated	GAS	17,784	634,396	71	8.93
LOS ANGELES	2020	LHD2	Aggregated	Aggregated	DSL	22,880	965,315	51	19.02
LOS ANGELES	2020	MCY	Aggregated	Aggregated	GAS	167,287	1,221,839	34	35.85
LOS ANGELES	2020	MDV	Aggregated	Aggregated	GAS	921,419	33,053,258	1,783	18.54
LOS ANGELES	2020	MDV	Aggregated	Aggregated	DSL	16,089	669,900	26	25.38
LOS ANGELES	2020	MDV	Aggregated	Aggregated	ELEC	2,584	90,675	-	#DIV/0!
LOS ANGELES	2020	MH	Aggregated	Aggregated	GAS	19,817	197,548	40	4.98
LOS ANGELES	2020	MH	Aggregated	Aggregated	DSL	5,531	58,524	6	10.25
LOS ANGELES	2020	Motor Coach	Aggregated	Aggregated	DSL	702	89,665	14	6.20
LOS ANGELES	2020	OBUS	Aggregated	Aggregated	GAS	4,050	176,715	36	4.87
LOS ANGELES	2020	PTO	Aggregated	Aggregated	DSL	-	77,604	16	4.73
LOS ANGELES	2020	SBUS	Aggregated	Aggregated	GAS	1,187	49,914	6	9.00
LOS ANGELES	2020	SBUS	Aggregated	Aggregated	DSL	3,809	120,609	16	7.46 MHD
LOS ANGELES	2020	T6 Ag	Aggregated	Aggregated	DSL	12	107	0	8.40 8.491201
LOS ANGELES	2020	T6 CAIRP heavy	Aggregated	Aggregated	DSL	325	64,529	6	10.93
LOS ANGELES	2020	T6 CAIRP small	Aggregated	Aggregated	DSL	171	9,062	1	10.32
LOS ANGELES	2020	T6 instate construction heavy	Aggregated	Aggregated	DSL	2,426	164,958	17	9.61
LOS ANGELES	2020	T6 instate construction small	Aggregated	Aggregated	DSL	8,537	435,827	45	9.75
LOS ANGELES	2020	T6 instate heavy	Aggregated	Aggregated	DSL	10,102	1,359,860	132	10.31
LOS ANGELES	2020	T6 instate small	Aggregated	Aggregated	DSL	37,541	1,865,391	190	9.82
LOS ANGELES	2020	T6 OOS heavy	Aggregated	Aggregated	DSL	186	37,251	3	10.94
LOS ANGELES	2020	T6 OOS small	Aggregated	Aggregated	DSL	99	5,170	1	10.30
LOS ANGELES	2020	T6 Public	Aggregated	Aggregated	DSL	4,476	69,103	9	7.85
LOS ANGELES	2020	T6 utility	Aggregated	Aggregated	DSL	1,007	16,810	2	9.16
LOS ANGELES	2020	T6TS	Aggregated	Aggregated	GAS	14,534	804,969	164	4.90 HHD
LOS ANGELES	2020	T7 Ag	Aggregated	Aggregated	DSL	4	121	0	5.57 6.140757
LOS ANGELES	2020	T7 CAIRP	Aggregated	Aggregated	DSL	6,042	1,093,836	164	6.66
LOS ANGELES	2020	T7 CAIRP construction	Aggregated	Aggregated	DSL	644	118,491	17	7.03
LOS ANGELES	2020	T7 NNOOS	Aggregated	Aggregated	DSL	6,606	1,333,461	194	6.88
LOS ANGELES	2020	T7 NOOS	Aggregated	Aggregated	DSL	2,375	429,768	66	6.51
LOS ANGELES	2020	T7 POLA	Aggregated	Aggregated	DSL	7,813	956,448	173	5.52
LOS ANGELES	2020	T7 Public	Aggregated	Aggregated	DSL	5,389	109,151	19	5.64
LOS ANGELES	2020	T7 Single	Aggregated	Aggregated	DSL	5,737	390,830	63	6.20
LOS ANGELES	2020	T7 single construction	Aggregated	Aggregated	DSL	4,168	293,954	46	6.35
LOS ANGELES	2020	T7 SWCV	Aggregated	Aggregated	DSL	1,728	70,608	35	2.02
LOS ANGELES	2020	T7 SWCV	Aggregated	Aggregated	NG	2,261	92,031	42	2.17
LOS ANGELES	2020	T7 tractor	Aggregated	Aggregated	DSL	11,762	1,618,822	240	6.74
LOS ANGELES	2020	T7 tractor construction	Aggregated	Aggregated	DSL	3,451	242,486	38	6.33
LOS ANGELES	2020	T7 utility	Aggregated	Aggregated	DSL	400	8,126	1	5.99
LOS ANGELES	2020	T7IS	Aggregated	Aggregated	GAS	62	5,725	1	3.88
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	GAS	456	33,185	8	4.15
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	DSL	41	5,505	1	6.42
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	ELEC	14	1,218	-	#DIV/0!
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	NG	4,123	436,939	111	3.95

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Yr	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	MPG (Derived)
LOS ANGELES	2021	All Other Buses	Aggregated	Aggregated	DSL	2395.753094	142177.9043	14.32591647	9.92
LOS ANGELES	2021	LDA	Aggregated	Aggregated	GAS	3998082.55	154957028.3	5253.036076	29.50
LOS ANGELES	2021	LDA	Aggregated	Aggregated	DSL	33364.94911	1336170.355	28.995514	46.08
LOS ANGELES	2021	LDA	Aggregated	Aggregated	ELEC	67210.71775	2697315.265	0	#DIV/0!
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	GAS	451923.1455	17065391.26	670.3612556	25.46
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	DSL	297.0410267	7338.123275	0.340197438	21.57
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	ELEC	2539.277034	100849.3946	0	#DIV/0!
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	GAS	1370275.92	52553142.22	2238.862589	23.47
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	DSL	8126.390234	355535.4183	10.50575614	33.84
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	ELEC	11051.44449	368949.9062	0	#DIV/0!
LOS ANGELES	2021	LHD1	Aggregated	Aggregated	GAS	108025.983	3955472.057	382.6976915	10.34
LOS ANGELES	2021	LHD1	Aggregated	Aggregated	DSL	61698.84585	2667214.83	124.5587375	21.41
LOS ANGELES	2021	LHD2	Aggregated	Aggregated	GAS	17947.14388	636046.3967	70.61942731	9.01
LOS ANGELES	2021	LHD2	Aggregated	Aggregated	DSL	24847.529	1035822.88	53.69276638	19.29
LOS ANGELES	2021	MCY	Aggregated	Aggregated	GAS	174733.5483	1259345.847	35.18425126	35.79
LOS ANGELES	2021	MDV	Aggregated	Aggregated	GAS	932036.8903	33105798.77	1730.986924	19.13
LOS ANGELES	2021	MDV	Aggregated	Aggregated	DSL	18030.2644	734378.7436	28.12152985	26.11
LOS ANGELES	2021	MDV	Aggregated	Aggregated	ELEC	4837.670599	167248.7908	0	#DIV/0!
LOS ANGELES	2021	MH	Aggregated	Aggregated	GAS	19738.38855	198097.0268	39.17625337	5.06
LOS ANGELES	2021	MH	Aggregated	Aggregated	DSL	5837.585418	61474.42824	5.917628629	10.39
LOS ANGELES	2021	Motor Coach	Aggregated	Aggregated	DSL	703.2457106	91424.80552	14.43958	6.33
LOS ANGELES	2021	OBUS	Aggregated	Aggregated	GAS	4043.633604	172164.4313	34.90940232	4.93
LOS ANGELES	2021	PTO	Aggregated	Aggregated	DSL	0	78431.86638	16.37607095	4.79
LOS ANGELES	2021	SBUS	Aggregated	Aggregated	GAS	1289.957091	53467.22336	5.870331948	9.11
LOS ANGELES	2021	SBUS	Aggregated	Aggregated	DSL	3836.738425	121324.4844	16.1045611	7.53 MHD
LOS ANGELES	2021	T6 Ag	Aggregated	Aggregated	DSL	12.13095267	104.3587548	0.012450059	8.38 8.692322
LOS ANGELES	2021	T6 CAIRP heavy	Aggregated	Aggregated	DSL	334.3089902	65862.4333	5.887575104	11.19
LOS ANGELES	2021	T6 CAIRP small	Aggregated	Aggregated	DSL	176.7171664	9271.232452	0.879539355	10.54
LOS ANGELES	2021	T6 instate construction heavy	Aggregated	Aggregated	DSL	2463.579926	167642.3835	17.15132005	9.77
LOS ANGELES	2021	T6 instate construction small	Aggregated	Aggregated	DSL	8566.238267	443239.724	44.59597433	9.94
LOS ANGELES	2021	T6 instate heavy	Aggregated	Aggregated	DSL	10455.48502	1410072.143	133.2175395	10.58
LOS ANGELES	2021	T6 instate small	Aggregated	Aggregated	DSL	38393.79645	1920331.232	191.398187	10.03
LOS ANGELES	2021	T6 OOS heavy	Aggregated	Aggregated	DSL	191.6398006	38081.09496	3.396939931	11.21
LOS ANGELES	2021	T6 OOS small	Aggregated	Aggregated	DSL	101.7297612	5283.650628	0.502246213	10.52
LOS ANGELES	2021	T6 Public	Aggregated	Aggregated	DSL	4497.854571	69891.41772	8.726611111	8.01
LOS ANGELES	2021	T6 utility	Aggregated	Aggregated	DSL	1007.559291	16957.30385	1.7773803	9.54
LOS ANGELES	2021	T6TS	Aggregated	Aggregated	GAS	14589.7762	807949.859	162.4615311	4.97 HHD
LOS ANGELES	2021	T7 Ag	Aggregated	Aggregated	DSL	4.854707518	113.1890197	0.020332678	5.57 6.253066
LOS ANGELES	2021	T7 CAIRP	Aggregated	Aggregated	DSL	6279.132793	1115075.522	165.0304383	6.76
LOS ANGELES	2021	T7 CAIRP construction	Aggregated	Aggregated	DSL	666.4134286	120418.9803	16.82162322	7.16
LOS ANGELES	2021	T7 NNOOS	Aggregated	Aggregated	DSL	6776.419057	1359344.742	192.9162697	7.05
LOS ANGELES	2021	T7 NOOS	Aggregated	Aggregated	DSL	2465.53665	438114.9058	66.36716141	6.60
LOS ANGELES	2021	T7 POLA	Aggregated	Aggregated	DSL	8055.06441	1016317.432	181.646039	5.60
LOS ANGELES	2021	T7 Public	Aggregated	Aggregated	DSL	5442.962372	110265.6618	19.25858137	5.73
LOS ANGELES	2021	T7 Single	Aggregated	Aggregated	DSL	5864.858433	394998.5563	62.68355999	6.30
LOS ANGELES	2021	T7 single construction	Aggregated	Aggregated	DSL	4248.667003	298737.3414	46.12726641	6.48
LOS ANGELES	2021	T7 SWCV	Aggregated	Aggregated	DSL	1524.436923	62284.87901	30.71187598	2.03
LOS ANGELES	2021	T7 SWCV	Aggregated	Aggregated	NG	2453.780525	99862.0129	45.36807419	2.20
LOS ANGELES	2021	T7 tractor	Aggregated	Aggregated	DSL	12117.53918	1643190.233	238.4926366	6.89
LOS ANGELES	2021	T7 tractor construction	Aggregated	Aggregated	DSL	3547.888701	246432.0056	38.32018639	6.43
LOS ANGELES	2021	T7 utility	Aggregated	Aggregated	DSL	403.9712025	8195.988304	1.308976399	6.26
LOS ANGELES	2021	T7IS	Aggregated	Aggregated	GAS	58.22843706	5770.219973	1.443583293	4.00
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	GAS	458.4288176	33383.22271	8.035868912	4.15
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	DSL	37.1389	5105.145298	0.807132926	6.33
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	ELEC	14	1217.553685	0	#DIV/0!
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	NG	4152.468621	439987.1908	111.6541508	3.94

On-road Mobile (Operational) Energy Usage

Note: Assumes that all vehicles that are generated as part of proposed project use gasoline as a fuel source (for simplicity), since the vast majority of vehicles generated by the project would use gasoline.

Unmitigated:

Step 1:

Therefore:
Average Daily VMT:
13,676 Note: Estimated via CalEEMod output (4,991,607 annual VMT, divided by 365 days per year).

Step 2:

Given:

Fleet Mix (CalEEMod Output)													
LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
54.65%	4.50%	20.40%	12.04%	1.57%	0.62%	2.01%	3.07%	0.25%	0.22%	0.51%	0.07%	0.09%	

And:

Gasoline MPG Factors for each Vehicle Class - Year 2022 (EMFAC2017 Output)													
LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
29.50	25.46	23.47	19.13	10.34	9.01	N/A	N/A		4.93	4.15	35.79	9.11	5.06

Therefore:
Weighted Average MPG Factors
Gasoline: 24.79

Step 3:

Therefore:
552 daily gallons of gasoline
or
201,347 annual gallons of gasoline

Off-road (i.e. On-site) Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source. Demolition, Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	4.0 metric tons	CO2	(provided in CalEEMod Output File)
Conversion Factor:	2204.6262 pounds	per metric ton	
Intermediate Result:	8,865 pounds	CO2	
Conversion Factor:	22.38 pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	396.09 gallons	diesel fuel	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Site Preparation	1.5241
Grading	2.4968

On-road Mobile (Construction) Energy Usage - Site Preparation

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

8

Worker Trip Length (miles) (CalEEMod Output)

14.7

Therefore:

Average Worker Daily VMT:

118

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

Weighted Average Worker MPG Factor

26.28

Step 3: **Therefore:**

4 Worker daily gallons of gasoline

Step 4: **2 # of Days (CalEEMod Output)**

Therefore:

Result: 9 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Grading

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

8

Worker Trip Length (miles) (CalEEMod Output)

14.7

Therefore:

Average Worker Daily VMT:

118

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMod)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

Weighted Average Worker MPG Factor

26.28

Step 3: **Therefore:**

4 Worker daily gallons of gasoline

Step 4: **4 # of Days (CalEEMod Output)**

Therefore:

Result: 18 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Building Construction

Step 1:	Total Daily Worker Trips (CalEEMod Output)			Total Daily Vendor Trips (CalEEMod Output)		
	79			31		
	Worker Trip Length (miles) (CalEEMod Output)			Vendor Trip Length (miles) (CalEEMod Output)		
	14.7			6.9		
	Therefore:					
	Average Worker Daily VMT:			Average Vendor Daily VMT:		
	1,161			214		
Step 2:	Given:					
	Assumed Fleet Mix for Workers			(Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)		
	LDA	LDT1	LDT2	Fleet Mix for Workers (CalEEMod Output)		
	0.5	0.25	0.25	MHD	HHD	
	Assumed Fleet Mix for Vendors			0%	100%	
	And:					
	MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020					
	<u>Gasoline:</u>			<u>Diesel:</u>		
	LDA	LDT1	LDT2	MHD	HHD	
	28.80	24.85	22.68	8.49	6.14	
	Therefore:					
	Weighted Average Worker (Gasoline) MPG Factor			Weighted Average Vendor (Diesel) MPG Factor		
	26.28			6.14		
Step 3:	Therefore:			Therefore:		
	44 Worker daily gallons of gasoline			35 Vendor daily gallons of diesel		
Step 4:	200 # of Days (CalEEMod Output)					
	Therefore:			Therefore:		
	8,838 Total gallons of gasoline			6,967 Total gallons of diesel		

On-road Mobile (Construction) Energy Usage - Paving

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

16

Worker Trip Length (miles) (CalEEMod Output)

14.7

Therefore:

Average Worker Daily VMT:

235

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

Weighted Average Worker MPG Factor

26.3

Step 3: **Therefore:**

9 Worker daily gallons of gasoline

Step 4: 30 # of Days (CalEEMod Output)

Therefore:

Result: 268 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Architectural Coating

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

13

Worker Trip Length (miles) (CalEEMod Output)

14.7

Therefore:

Average Worker Daily VMT:

191

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (EMFAC2017 Output) - Year 2020

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

Weighted Average Worker MPG Factor

26.3

Step 3: **Therefore:**

7 Worker daily gallons of gasoline

Step 4: 10 # of Days (CalEEMod Output)

Therefore:

Result: 73 Total gallons of gasoline