

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Annual

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Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	50.00	1000sqft	0.00	50,000.00	0
----- Apartments Mid Rise	100.00	Dwelling Unit	0.63	120,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	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 -

Land Use - population est at 200

Construction Phase - Schedule per project plans
Possible 6 day work week

Off-road Equipment - Bldg equio per engr plus forks

Off-road Equipment - Grading equip per engineer

Off-road Equipment - No asphalt

Trips and VMT - Haul trip adjust for 10 CY trucks

Grading -

Architectural Coating - ESt 25% exterior paint

Woodstoves - No hearths

Area Coating - Est 25% exterior paint

Energy Use - Nat gas adjust to yield engr estimate
Elec adjust to yueld enge est

Construction Off-road Equipment Mitigation - All const equip Tier 3
Water 3x/day

Area Mitigation - Low VOC paints for operation

Energy Mitigation - Exceed Title 24 by 20% per UCLA req
No credit for 2016 or 2020 code over default

Water Mitigation - Low flow fixtures per CalGreen

Waste Mitigation - At least 50% reduction per CA law

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - Emerg gen 150 kVa; Assume 1/2 hr/2 wk test

Landscape Equipment - x

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	81,000.00	25,000.00
tblAreaCoating	Area_Residential_Exterior	81000	25000
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	2.00	52.00
tblConstructionPhase	NumDays	100.00	600.00
tblConstructionPhase	NumDays	5.00	43.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3,054.10	3,900.00
tblEnergyUse	NT24NG	4,831.00	1,158.55

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tblEnergyUse	T24NG	4,385.94	1,051.81
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	5.00	0.00
tblGrading	MaterialExported	0.00	23,129.00
tblLandUse	LandUseSquareFeet	100,000.00	120,000.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	2.63	0.63
tblLandUse	Population	286.00	200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	HaulingTripNumber	2,891.00	4,626.00
tblVehicleTrips	ST_TR	6.39	2.49

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tblVehicleTrips	SU_TR	5.86	2.28
tblVehicleTrips	WD_TR	6.65	2.59
tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

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					
2020	0.0703	1.1404	0.6600	2.8100e-003	0.0604	0.0248	0.0853	0.0163	0.0231	0.0394			266.4585	0.0331	0.0000	267.2863
2021	0.2085	1.6719	1.8520	4.4200e-003	0.1782	0.0753	0.2535	0.0478	0.0710	0.1187			397.4773	0.0492	0.0000	398.7071
2022	0.5427	1.2968	1.5570	3.7600e-003	0.1541	0.0557	0.2098	0.0413	0.0526	0.0939			338.1573	0.0409	0.0000	339.1807
Maximum	0.5427	1.6719	1.8520	4.4200e-003	0.1782	0.0753	0.2535	0.0478	0.0710	0.1187			397.4773	0.0492	0.0000	398.7071

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0468	1.0965	0.7467	2.8100e-003	0.0595	0.0235	0.0830	0.0161	0.0234	0.0395			266.4584	0.0331	0.0000	267.2862
2021	0.1191	1.3826	1.9857	4.4200e-003	0.1782	0.0679	0.2461	0.0478	0.0678	0.1156			397.4771	0.0492	0.0000	398.7069
2022	0.4892	1.2209	1.7206	3.7600e-003	0.1541	0.0636	0.2176	0.0413	0.0635	0.1047			338.1571	0.0409	0.0000	339.1805
Maximum	0.4892	1.3826	1.9857	4.4200e-003	0.1782	0.0679	0.2461	0.0478	0.0678	0.1156			397.4771	0.0492	0.0000	398.7069

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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	N20	CO2e
Percent Reduction	20.24	9.96	-9.43	0.00	0.24	0.53	0.33	0.13	-5.42	-3.10	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2020	12-31-2020	1.2009	1.1343
2	1-1-2021	3-31-2021	0.4636	0.3702
3	4-1-2021	6-30-2021	0.4658	0.3715
4	7-1-2021	9-30-2021	0.4710	0.3756
5	10-1-2021	12-31-2021	0.4739	0.3785
6	1-1-2022	3-31-2022	0.4189	0.3644
7	4-1-2022	6-30-2022	0.4209	0.3658
8	7-1-2022	9-30-2022	0.6377	0.6105
		Highest	1.2009	1.1343

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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	tons/yr										MT/yr					
Area	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Energy	1.1900e-003	0.0102	4.3300e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004			442.6597	0.0104	2.3200e-003	443.6116
Mobile	0.0788	0.4151	1.0878	3.9700e-003	0.3283	3.3200e-003	0.3316	0.0880	3.1000e-003	0.0911			366.8392	0.0189	0.0000	367.3107
Stationary	1.7200e-003	4.8000e-003	6.2300e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004			0.7970	1.1000e-004	0.0000	0.7998
Waste						0.0000	0.0000		0.0000	0.0000			9.3376	0.5518	0.0000	23.1335
Water						0.0000	0.0000		0.0000	0.0000			74.7348	0.2140	5.3700e-003	81.6850
Total	0.5503	0.4301	1.0984	4.0500e-003	0.3283	4.3900e-003	0.3327	0.0880	4.1700e-003	0.0922			894.3683	0.7952	7.6900e-003	916.5406

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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	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Energy	1.0800e-003	9.2200e-003	3.9200e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			411.9588	9.6800e-003	2.1600e-003	412.8434
Mobile	0.0788	0.4151	1.0878	3.9700e-003	0.3283	3.3200e-003	0.3316	0.0880	3.1000e-003	0.0911			366.8392	0.0189	0.0000	367.3107
Stationary	1.7200e-003	4.8000e-003	6.2300e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004			0.7970	1.1000e-004	0.0000	0.7998
Waste						0.0000	0.0000		0.0000	0.0000			9.3376	0.5518	0.0000	23.1335
Water						0.0000	0.0000		0.0000	0.0000			64.8712	0.1713	4.3200e-003	70.4418
Total	0.5502	0.4291	1.0980	4.0400e-003	0.3283	4.3200e-003	0.3326	0.0880	4.1000e-003	0.0921			853.8038	0.7518	6.4800e-003	874.5292

	ROG	NOx	CO	SO2	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	0.02	0.22	0.04	0.25	0.00	1.59	0.02	0.00	1.68	0.08	0.00	0.00	4.54	5.46	15.73	4.58

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	10/1/2020	10/1/2020	6	1	
2	Grading	Grading	10/2/2020	12/1/2020	6	52	
3	Building Construction	Building Construction	12/2/2020	11/1/2022	6	600	
4	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	6	43	
5	Paving	Paving	10/1/2022	10/6/2022	6	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 243,000; Residential Outdoor: 25,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,000 (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	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	4.00	221	0.50
Grading	Concrete/Industrial Saws	0	0.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Rollers	0	0.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,626.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	93.00	19.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	4.2200e-003	2.0500e-003	0.0000		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004			0.4280	1.4000e-004	0.0000	0.4314
Total	3.4000e-004	4.2200e-003	2.0500e-003	0.0000	2.7000e-004	1.7000e-004	4.4000e-004	3.0000e-005	1.5000e-004	1.8000e-004			0.4280	1.4000e-004	0.0000	0.4314

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0255	0.0000	0.0000	0.0256
Total	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0255	0.0000	0.0000	0.0256

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					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-004	2.4400e-003	2.9300e-003	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004			0.4280	1.4000e-004	0.0000	0.4314
Total	1.2000e-004	2.4400e-003	2.9300e-003	0.0000	1.0000e-004	1.2000e-004	2.2000e-004	1.0000e-005	1.2000e-004	1.3000e-004			0.4280	1.4000e-004	0.0000	0.4314

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0255	0.0000	0.0000	0.0256
Total	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0255	0.0000	0.0000	0.0256

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.2944	0.3303	5.7000e-004		0.0152	0.0152		0.0140	0.0140			50.2840	0.0163	0.0000	50.6906
Total	0.0286	0.2944	0.3303	5.7000e-004	1.3100e-003	0.0152	0.0165	2.0000e-004	0.0140	0.0142			50.2840	0.0163	0.0000	50.6906

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3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0204	0.6869	0.1514	1.8100e-003	0.0398	2.1400e-003	0.0419	0.0109	2.0400e-003	0.0130			178.2819	0.0124	0.0000	178.5924
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	1.8000e-003	1.4500e-003	0.0161	4.0000e-005	4.2700e-003	4.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003			3.9833	1.3000e-004	0.0000	3.9864
Total	0.0222	0.6883	0.1675	1.8500e-003	0.0440	2.1800e-003	0.0462	0.0121	2.0700e-003	0.0141			182.2652	0.0126	0.0000	182.5788

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					5.1000e-004	0.0000	5.1000e-004	8.0000e-005	0.0000	8.0000e-005			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.2880	0.4066	5.7000e-004		0.0155	0.0155		0.0155	0.0155			50.2839	0.0163	0.0000	50.6905
Total	0.0141	0.2880	0.4066	5.7000e-004	5.1000e-004	0.0155	0.0160	8.0000e-005	0.0155	0.0156			50.2839	0.0163	0.0000	50.6905

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3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0204	0.6869	0.1514	1.8100e-003	0.0398	2.1400e-003	0.0419	0.0109	2.0400e-003	0.0130			178.2819	0.0124	0.0000	178.5924
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	1.8000e-003	1.4500e-003	0.0161	4.0000e-005	4.2700e-003	4.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003			3.9833	1.3000e-004	0.0000	3.9864
Total	0.0222	0.6883	0.1675	1.8500e-003	0.0440	2.1800e-003	0.0462	0.0121	2.0700e-003	0.0141			182.2652	0.0126	0.0000	182.5788

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1221	0.1031	1.7000e-004		7.0800e-003	7.0800e-003		6.6800e-003	6.6800e-003			14.9716	3.3900e-003	0.0000	15.0563
Total	0.0126	0.1221	0.1031	1.7000e-004		7.0800e-003	7.0800e-003		6.6800e-003	6.6800e-003			14.9716	3.3900e-003	0.0000	15.0563

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-004	0.0268	7.2500e-003	6.0000e-005	1.5600e-003	1.2000e-004	1.6800e-003	4.5000e-004	1.2000e-004	5.7000e-004			6.1361	3.9000e-004	0.0000	6.1459
Worker	5.5800e-003	4.5000e-003	0.0498	1.4000e-004	0.0133	1.1000e-004	0.0134	3.5200e-003	1.0000e-004	3.6200e-003			12.3481	3.9000e-004	0.0000	12.3579
Total	6.4800e-003	0.0313	0.0570	2.0000e-004	0.0148	2.3000e-004	0.0150	3.9700e-003	2.2000e-004	4.1900e-003			18.4843	7.8000e-004	0.0000	18.5037

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	3.9300e-003	0.0864	0.1126	1.7000e-004		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003			14.9715	3.3900e-003	0.0000	15.0563
Total	3.9300e-003	0.0864	0.1126	1.7000e-004		5.4800e-003	5.4800e-003		5.4800e-003	5.4800e-003			14.9715	3.3900e-003	0.0000	15.0563

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-004	0.0268	7.2500e-003	6.0000e-005	1.5600e-003	1.2000e-004	1.6800e-003	4.5000e-004	1.2000e-004	5.7000e-004			6.1361	3.9000e-004	0.0000	6.1459
Worker	5.5800e-003	4.5000e-003	0.0498	1.4000e-004	0.0133	1.1000e-004	0.0134	3.5200e-003	1.0000e-004	3.6200e-003			12.3481	3.9000e-004	0.0000	12.3579
Total	6.4800e-003	0.0313	0.0570	2.0000e-004	0.0148	2.3000e-004	0.0150	3.9700e-003	2.2000e-004	4.1900e-003			18.4843	7.8000e-004	0.0000	18.5037

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	0.1366	1.3297	1.2221	2.0700e-003		0.0734	0.0734		0.0692	0.0692			180.2496	0.0405	0.0000	181.2611
Total	0.1366	1.3297	1.2221	2.0700e-003		0.0734	0.0734		0.0692	0.0692			180.2496	0.0405	0.0000	181.2611

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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
Vendor	9.2300e-003	0.2935	0.0796	7.6000e-004	0.0187	6.0000e-004	0.0193	5.4100e-003	5.7000e-004	5.9800e-003			73.2958	4.5000e-003	0.0000	73.4082
Worker	0.0626	0.0488	0.5504	1.5900e-003	0.1595	1.3100e-003	0.1608	0.0424	1.2100e-003	0.0436			143.9319	4.2400e-003	0.0000	144.0378
Total	0.0719	0.3422	0.6300	2.3500e-003	0.1782	1.9100e-003	0.1801	0.0478	1.7800e-003	0.0496			217.2277	8.7400e-003	0.0000	217.4460

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	0.0473	1.0404	1.3557	2.0700e-003		0.0660	0.0660		0.0660	0.0660			180.2494	0.0405	0.0000	181.2609
Total	0.0473	1.0404	1.3557	2.0700e-003		0.0660	0.0660		0.0660	0.0660			180.2494	0.0405	0.0000	181.2609

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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
Vendor	9.2300e-003	0.2935	0.0796	7.6000e-004	0.0187	6.0000e-004	0.0193	5.4100e-003	5.7000e-004	5.9800e-003			73.2958	4.5000e-003	0.0000	73.4082
Worker	0.0626	0.0488	0.5504	1.5900e-003	0.1595	1.3100e-003	0.1608	0.0424	1.2100e-003	0.0436			143.9319	4.2400e-003	0.0000	144.0378
Total	0.0719	0.3422	0.6300	2.3500e-003	0.1782	1.9100e-003	0.1801	0.0478	1.7800e-003	0.0496			217.2277	8.7400e-003	0.0000	217.4460

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1025	0.9888	1.0066	1.7300e-003		0.0520	0.0520		0.0491	0.0491			150.3495	0.0336	0.0000	151.1884
Total	0.1025	0.9888	1.0066	1.7300e-003		0.0520	0.0520		0.0491	0.0491			150.3495	0.0336	0.0000	151.1884

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.2300e-003	0.2325	0.0628	6.2000e-004	0.0156	4.4000e-004	0.0161	4.5100e-003	4.2000e-004	4.9300e-003			60.5820	3.6200e-003	0.0000	60.6725
Worker	0.0490	0.0367	0.4229	1.2800e-003	0.1330	1.0600e-003	0.1341	0.0353	9.8000e-004	0.0363			115.8010	3.1900e-003	0.0000	115.8807
Total	0.0562	0.2692	0.4856	1.9000e-003	0.1486	1.5000e-003	0.1501	0.0398	1.4000e-003	0.0412			176.3830	6.8100e-003	0.0000	176.5532

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	0.0394	0.8676	1.1305	1.7300e-003		0.0551	0.0551		0.0551	0.0551			150.3493	0.0336	0.0000	151.1882
Total	0.0394	0.8676	1.1305	1.7300e-003		0.0551	0.0551		0.0551	0.0551			150.3493	0.0336	0.0000	151.1882

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	7.2300e-003	0.2325	0.0628	6.2000e-004	0.0156	4.4000e-004	0.0161	4.5100e-003	4.2000e-004	4.9300e-003			60.5820	3.6200e-003	0.0000	60.6725
Worker	0.0490	0.0367	0.4229	1.2800e-003	0.1330	1.0600e-003	0.1341	0.0353	9.8000e-004	0.0363			115.8010	3.1900e-003	0.0000	115.8807
Total	0.0562	0.2692	0.4856	1.9000e-003	0.1486	1.5000e-003	0.1501	0.0398	1.4000e-003	0.0412			176.3830	6.8100e-003	0.0000	176.5532

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3766					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.2200e-003	0.0359	0.0463	8.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003			6.5108	4.2000e-004	0.0000	6.5214
Total	0.3818	0.0359	0.0463	8.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003			6.5108	4.2000e-004	0.0000	6.5214

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3.5 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	1.9500e-003	1.4700e-003	0.0169	5.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003			4.6229	1.3000e-004	0.0000	4.6261
Total	1.9500e-003	1.4700e-003	0.0169	5.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003			4.6229	1.3000e-004	0.0000	4.6261

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	0.3766					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.0826	0.0871	8.0000e-005		6.9700e-003	6.9700e-003		6.9700e-003	6.9700e-003			6.5108	4.2000e-004	0.0000	6.5214
Total	0.3916	0.0826	0.0871	8.0000e-005		6.9700e-003	6.9700e-003		6.9700e-003	6.9700e-003			6.5108	4.2000e-004	0.0000	6.5214

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3.5 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	1.9500e-003	1.4700e-003	0.0169	5.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003			4.6229	1.3000e-004	0.0000	4.6261
Total	1.9500e-003	1.4700e-003	0.0169	5.0000e-005	5.3100e-003	4.0000e-005	5.3500e-003	1.4100e-003	4.0000e-005	1.4500e-003			4.6229	1.3000e-004	0.0000	4.6261

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2000e-004	1.3800e-003	1.1600e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005			0.1719	2.0000e-005	0.0000	0.1723
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	2.2000e-004	1.3800e-003	1.1600e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005			0.1719	2.0000e-005	0.0000	0.1723

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3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	5.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1193	0.0000	0.0000	0.1194
Total	5.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1193	0.0000	0.0000	0.1194

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.1719	2.0000e-005	0.0000	0.1723
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.1719	2.0000e-005	0.0000	0.1723

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3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
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	5.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1193	0.0000	0.0000	0.1194
Total	5.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005			0.1193	0.0000	0.0000	0.1194

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0788	0.4151	1.0878	3.9700e-003	0.3283	3.3200e-003	0.3316	0.0880	3.1000e-003	0.0911			366.8392	0.0189	0.0000	367.3107
Unmitigated	0.0788	0.4151	1.0878	3.9700e-003	0.3283	3.3200e-003	0.3316	0.0880	3.1000e-003	0.0911			366.8392	0.0189	0.0000	367.3107

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	259.00	249.00	228.00	865,028	865,028
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	259.00	249.00	228.00	865,028	865,028

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	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
Enclosed Parking with Elevator	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

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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			401.2860	9.4800e-003	1.9600e-003	402.1073
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			430.8643	0.0102	2.1100e-003	431.7461
NaturalGas Mitigated	1.0800e-003	9.2200e-003	3.9200e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			10.6728	2.0000e-004	2.0000e-004	10.7362
NaturalGas Unmitigated	1.1900e-003	0.0102	4.3300e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004			11.7953	2.3000e-004	2.2000e-004	11.8654

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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					
Apartments Mid Rise	221036	1.1900e-003	0.0102	4.3300e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004			11.7953	2.3000e-004	2.2000e-004	11.8654
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		1.1900e-003	0.0102	4.3300e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004			11.7953	2.3000e-004	2.2000e-004	11.8654

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					
Apartments Mid Rise	200000	1.0800e-003	9.2200e-003	3.9200e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			10.6728	2.0000e-004	2.0000e-004	10.7362
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		1.0800e-003	9.2200e-003	3.9200e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004			10.6728	2.0000e-004	2.0000e-004	10.7362

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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			
Apartments Mid Rise	480598	267.6746	6.3200e-003	1.3100e-003	268.2224
Enclosed Parking with Elevator	293000	163.1897	3.8500e-003	8.0000e-004	163.5237
Total		430.8643	0.0102	2.1100e-003	431.7461

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	466691	259.9292	6.1400e-003	1.2700e-003	260.4611
Enclosed Parking with Elevator	253800	141.3568	3.3400e-003	6.9000e-004	141.6461
Total		401.2860	9.4800e-003	1.9600e-003	402.1073

6.0 Area Detail

6.1 Mitigation Measures Area

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Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unmitigated	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0318					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4369					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

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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	0.0318					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4369					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.4686	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	64.8712	0.1713	4.3200e-003	70.4418
Unmitigated	74.7348	0.2140	5.3700e-003	81.6850

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.5154 / 4.10754	74.7348	0.2140	5.3700e-003	81.6850
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		74.7348	0.2140	5.3700e-003	81.6850

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.21232 / 4.10754	64.8712	0.1713	4.3200e-003	70.4418
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		64.8712	0.1713	4.3200e-003	70.4418

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.3376	0.5518	0.0000	23.1335
Unmitigated	9.3376	0.5518	0.0000	23.1335

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	46	9.3376	0.5518	0.0000	23.1335
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		9.3376	0.5518	0.0000	23.1335

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	46	9.3376	0.5518	0.0000	23.1335
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		9.3376	0.5518	0.0000	23.1335

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
Emergency Generator	1	0.5	13	161	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	1.7200e-003	4.8000e-003	6.2300e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004			0.7970	1.1000e-004	0.0000	0.7998
Total	1.7200e-003	4.8000e-003	6.2300e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004			0.7970	1.1000e-004	0.0000	0.7998

11.0 Vegetation

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

UCLA Hilgard Faculty Housing 101419
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	50.00	1000sqft	0.00	50,000.00	0
----- Apartments Mid Rise	100.00	Dwelling Unit	0.63	120,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - population est at 200

Construction Phase - Schedule per project plans
Possible 6 day work week

Off-road Equipment - Bldg equio per engr plus forks

Off-road Equipment - Grading equip per engineer

Off-road Equipment - No asphalt

Trips and VMT - Haul trip adjust for 10 CY trucks

Grading -

Architectural Coating - ESt 25% exterior paint

Woodstoves - No hearths

Area Coating - Est 25% exterior paint

Energy Use - Nat gas adjust to yield engr estimate
Elec adjust to yueld enge est

Construction Off-road Equipment Mitigation - All const equip Tier 3
Water 3x/day

Area Mitigation - Low VOC paints for operation

Energy Mitigation - Exceed Title 24 by 20% per UCLA req
No credit for 2016 or 2020 code over default

Water Mitigation - Low flow fixtures per CalGreen

Waste Mitigation - At least 50% reduction per CA law

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - Emerg gen 150 kVa; Assume 1/2 hr/2 wk test

Landscape Equipment - x

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	81,000.00	25,000.00
tblAreaCoating	Area_Residential_Exterior	81000	25000
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	2.00	52.00
tblConstructionPhase	NumDays	100.00	600.00
tblConstructionPhase	NumDays	5.00	43.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3,054.10	3,900.00
tblEnergyUse	NT24NG	4,831.00	1,158.55

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tblEnergyUse	T24NG	4,385.94	1,051.81
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	5.00	0.00
tblGrading	MaterialExported	0.00	23,129.00
tblLandUse	LandUseSquareFeet	100,000.00	120,000.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	2.63	0.63
tblLandUse	Population	286.00	200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	HaulingTripNumber	2,891.00	4,626.00
tblVehicleTrips	ST_TR	6.39	2.49

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tblVehicleTrips	SU_TR	5.86	2.28
tblVehicleTrips	WD_TR	6.65	2.59
tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

2.0 Emissions Summary

UCLA Hilgard Faculty Housing 101419 - 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					
2020	1.9462	36.9522	19.0304	0.0941	1.7734	0.6670	2.4405	0.4785	0.6167	1.0951			9,921.8979	1.2133	0.0000	9,952.2299
2021	1.3294	10.6154	12.0370	0.0287	1.1612	0.4811	1.6423	0.3107	0.4535	0.7642			2,850.9216	0.3469	0.0000	2,859.5953
2022	16.3695	11.6032	14.7939	0.0350	1.4294	0.5153	1.9447	0.3819	0.4918	0.8736			3,430.4154	0.3748	0.0000	3,439.7863
Maximum	16.3695	36.9522	19.0304	0.0941	1.7734	0.6670	2.4405	0.4785	0.6167	1.0951			9,921.8979	1.2133	0.0000	9,952.2299

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					
2020	1.3881	36.7057	21.9643	0.0941	1.7427	0.6795	2.4222	0.4738	0.6758	1.1496			9,921.8979	1.2133	0.0000	9,952.2299
2021	0.7584	8.7669	12.8907	0.0287	1.1612	0.4340	1.5951	0.3107	0.4332	0.7439			2,850.9216	0.3469	0.0000	2,859.5953
2022	16.1827	11.9527	16.8839	0.0350	1.4294	0.7087	2.1382	0.3819	0.7078	1.0896			3,430.4154	0.3748	0.0000	3,439.7863
Maximum	16.1827	36.7057	21.9643	0.0941	1.7427	0.7087	2.4222	0.4738	0.7078	1.1496			9,921.8979	1.2133	0.0000	9,952.2299

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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	6.70	2.95	-12.82	0.00	0.70	-9.54	-2.12	0.40	-16.31	-9.15	0.00	0.00	0.00	0.00	0.00	0.00

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	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Energy	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679
Mobile	0.4670	2.2360	6.3607	0.0231	1.8820	0.0187	1.9006	0.5037	0.0174	0.5211			2,355.1333	0.1177		2,358.0768
Stationary	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	3.4233	2.7564	15.1279	0.0246	1.8820	0.0882	1.9702	0.5037	0.0870	0.5906			2,508.8248	0.1429	1.3100e-003	2,512.7876

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

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	lb/day										lb/day					
Area	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Energy	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
Mobile	0.4670	2.2360	6.3607	0.0231	1.8820	0.0187	1.9006	0.5037	0.0174	0.5211			2,355.1333	0.1177		2,358.0768
Stationary	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	3.4227	2.7511	15.1257	0.0245	1.8820	0.0878	1.9698	0.5037	0.0866	0.5902			2,502.0444	0.1428	1.1800e-003	2,505.9669

	ROG	NOx	CO	SO2	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	0.02	0.19	0.01	0.16	0.00	0.49	0.02	0.00	0.49	0.07	0.00	0.00	0.27	0.09	9.92	0.27

3.0 Construction Detail

Construction Phase

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2020	10/1/2020	6	1	
2	Grading	Grading	10/2/2020	12/1/2020	6	52	
3	Building Construction	Building Construction	12/2/2020	11/1/2022	6	600	
4	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	6	43	
5	Paving	Paving	10/1/2022	10/6/2022	6	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 243,000; Residential Outdoor: 25,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,000 (Architectural Coating – sqft)

OffRoad Equipment

UCLA Hilgard Faculty Housing 101419 - 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	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	4.00	221	0.50
Grading	Concrete/Industrial Saws	0	0.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Rollers	0	0.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,626.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	93.00	19.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085			943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	0.5303	0.3353	0.8656	0.0573	0.3085	0.3658			943.4872	0.3051		951.1158

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	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
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			58.8056	1.8500e-003		58.8520
Total	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			58.8056	1.8500e-003		58.8520

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	0.2382	4.8716	5.8579	9.7400e-003		0.2405	0.2405		0.2405	0.2405			943.4872	0.3051		951.1158
Total	0.2382	4.8716	5.8579	9.7400e-003	0.2068	0.2405	0.4473	0.0223	0.2405	0.2629			943.4872	0.3051		951.1158

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	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
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			58.8056	1.8500e-003		58.8520
Total	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			58.8056	1.8500e-003		58.8520

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0503	0.0000	0.0503	7.6200e-003	0.0000	7.6200e-003			0.0000			0.0000
Off-Road	1.1001	11.3230	12.7053	0.0220		0.5840	0.5840		0.5373	0.5373			2,131.8694	0.6895		2,149.1067
Total	1.1001	11.3230	12.7053	0.0220	0.0503	0.5840	0.6343	7.6200e-003	0.5373	0.5449			2,131.8694	0.6895		2,149.1067

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3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7771	25.5801	5.6683	0.0703	1.5555	0.0816	1.6371	0.4264	0.0781	0.5045			7,613.6115	0.5182		7,626.5673
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
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458			176.4169	5.5600e-003		176.5560
Total	0.8461	25.6292	6.3251	0.0720	1.7231	0.0830	1.8062	0.4708	0.0794	0.5502			7,790.0284	0.5238		7,803.1233

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0196	0.0000	0.0196	2.9700e-003	0.0000	2.9700e-003			0.0000			0.0000
Off-Road	0.5420	11.0765	15.6392	0.0220		0.5964	0.5964		0.5964	0.5964			2,131.8694	0.6895		2,149.1067
Total	0.5420	11.0765	15.6392	0.0220	0.0196	0.5964	0.6160	2.9700e-003	0.5964	0.5994			2,131.8694	0.6895		2,149.1067

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7771	25.5801	5.6683	0.0703	1.5555	0.0816	1.6371	0.4264	0.0781	0.5045			7,613.6115	0.5182		7,626.5673
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
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458			176.4169	5.5600e-003		176.5560
Total	0.8461	25.6292	6.3251	0.0720	1.7231	0.0830	1.8062	0.4708	0.0794	0.5502			7,790.0284	0.5238		7,803.1233

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9696	9.3939	7.9297	0.0132		0.5447	0.5447		0.5135	0.5135			1,269.4855	0.2874		1,276.6707
Total	0.9696	9.3939	7.9297	0.0132		0.5447	0.5447		0.5135	0.5135			1,269.4855	0.2874		1,276.6707

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0676	2.0211	0.5295	4.9300e-003	0.1216	9.5100e-003	0.1312	0.0350	9.1000e-003	0.0441			526.3469	0.0321		527.1499
Worker	0.4280	0.3045	4.0720	0.0110	1.0395	8.6900e-003	1.0482	0.2757	8.0100e-003	0.2837			1,093.7850	0.0345		1,094.6471
Total	0.4956	2.3256	4.6015	0.0159	1.1612	0.0182	1.1794	0.3107	0.0171	0.3278			1,620.1319	0.0666		1,621.7970

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.4855	0.2874		1,276.6707
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.4855	0.2874		1,276.6707

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0676	2.0211	0.5295	4.9300e-003	0.1216	9.5100e-003	0.1312	0.0350	9.1000e-003	0.0441			526.3469	0.0321		527.1499
Worker	0.4280	0.3045	4.0720	0.0110	1.0395	8.6900e-003	1.0482	0.2757	8.0100e-003	0.2837			1,093.7850	0.0345		1,094.6471
Total	0.4956	2.3256	4.6015	0.0159	1.1612	0.0182	1.1794	0.3107	0.0171	0.3278			1,620.1319	0.0666		1,621.7970

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	0.8730	8.4967	7.8089	0.0132		0.4690	0.4690		0.4421	0.4421			1,269.5925	0.2850		1,276.7168
Total	0.8730	8.4967	7.8089	0.0132		0.4690	0.4690		0.4421	0.4421			1,269.5925	0.2850		1,276.7168

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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
Vendor	0.0578	1.8447	0.4823	4.8900e-003	0.1216	3.7700e-003	0.1254	0.0350	3.6100e-003	0.0386			522.2732	0.0308		523.0424
Worker	0.3987	0.2740	3.7458	0.0106	1.0395	8.4000e-003	1.0479	0.2757	7.7400e-003	0.2834			1,059.0560	0.0312		1,059.8361
Total	0.4564	2.1187	4.2281	0.0155	1.1612	0.0122	1.1733	0.3107	0.0114	0.3221			1,581.3292	0.0620		1,582.8785

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.5925	0.2850		1,276.7168
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.5925	0.2850		1,276.7168

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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
Vendor	0.0578	1.8447	0.4823	4.8900e-003	0.1216	3.7700e-003	0.1254	0.0350	3.6100e-003	0.0386			522.2732	0.0308		523.0424
Worker	0.3987	0.2740	3.7458	0.0106	1.0395	8.4000e-003	1.0479	0.2757	7.7400e-003	0.2834			1,059.0560	0.0312		1,059.8361
Total	0.4564	2.1187	4.2281	0.0155	1.1612	0.0122	1.1733	0.3107	0.0114	0.3221			1,581.3292	0.0620		1,582.8785

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7855	7.5767	7.7136	0.0132		0.3986	0.3986		0.3760	0.3760			1,269.9763	0.2835		1,277.0627
Total	0.7855	7.5767	7.7136	0.0132		0.3986	0.3986		0.3760	0.3760			1,269.9763	0.2835		1,277.0627

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0542	1.7543	0.4563	4.8400e-003	0.1216	3.3000e-003	0.1249	0.0350	3.1500e-003	0.0382			517.7232	0.0297		518.4659
Worker	0.3734	0.2475	3.4559	0.0103	1.0395	8.1400e-003	1.0477	0.2757	7.4900e-003	0.2832			1,021.8025	0.0282		1,022.5075
Total	0.4276	2.0018	3.9122	0.0151	1.1612	0.0114	1.1726	0.3107	0.0106	0.3214			1,539.5256	0.0579		1,540.9735

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.9763	0.2835		1,277.0627
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.9763	0.2835		1,277.0627

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0542	1.7543	0.4563	4.8400e-003	0.1216	3.3000e-003	0.1249	0.0350	3.1500e-003	0.0382			517.7232	0.0297		518.4659
Worker	0.3734	0.2475	3.4559	0.0103	1.0395	8.1400e-003	1.0477	0.2757	7.4900e-003	0.2832			1,021.8025	0.0282		1,022.5075
Total	0.4276	2.0018	3.9122	0.0151	1.1612	0.0114	1.1726	0.3107	0.0106	0.3214			1,539.5256	0.0579		1,540.9735

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.7673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817			281.4481	0.0183		281.9062
Total	14.9719	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817			281.4481	0.0183		281.9062

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3.5 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0763	0.0506	0.7060	2.1000e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			208.7553	5.7600e-003		208.8994
Total	0.0763	0.0506	0.7060	2.1000e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			208.7553	5.7600e-003		208.8994

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	14.7673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5893	3.2389	3.4172	2.9700e-003		0.2734	0.2734		0.2734	0.2734			281.4481	0.0183		281.9062
Total	15.3567	3.2389	3.4172	2.9700e-003		0.2734	0.2734		0.2734	0.2734			281.4481	0.0183		281.9062

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

3.5 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0763	0.0506	0.7060	2.1000e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			208.7553	5.7600e-003		208.8994
Total	0.0763	0.0506	0.7060	2.1000e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			208.7553	5.7600e-003		208.8994

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0881	0.5523	0.4627	1.0700e-003		0.0215	0.0215		0.0215	0.0215			75.7745	7.8700e-003		75.9711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0881	0.5523	0.4627	1.0700e-003		0.0215	0.0215		0.0215	0.0215			75.7745	7.8700e-003		75.9711

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0201	0.0133	0.1858	5.5000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			54.9356	1.5200e-003		54.9735
Total	0.0201	0.0133	0.1858	5.5000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			54.9356	1.5200e-003		54.9735

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	0.0000	0.0000	0.0000	1.0700e-003		0.0000	0.0000		0.0000	0.0000			75.7745	7.8700e-003		75.9711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	1.0700e-003		0.0000	0.0000		0.0000	0.0000			75.7745	7.8700e-003		75.9711

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0201	0.0133	0.1858	5.5000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			54.9356	1.5200e-003		54.9735
Total	0.0201	0.0133	0.1858	5.5000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			54.9356	1.5200e-003		54.9735

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

UCLA Hilgard Faculty Housing 101419 - 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	0.4670	2.2360	6.3607	0.0231	1.8820	0.0187	1.9006	0.5037	0.0174	0.5211			2,355.1333	0.1177		2,358.0768
Unmitigated	0.4670	2.2360	6.3607	0.0231	1.8820	0.0187	1.9006	0.5037	0.0174	0.5211			2,355.1333	0.1177		2,358.0768

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	259.00	249.00	228.00	865,028	865,028
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	259.00	249.00	228.00	865,028	865,028

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	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
Enclosed Parking with Elevator	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

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
NaturalGas Unmitigated	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679

UCLA Hilgard Faculty Housing 101419 - 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					
Apartments Mid Rise	605.578	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679

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					
Apartments Mid Rise	0.547945	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472

6.0 Area Detail

6.1 Mitigation Measures Area

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Unmitigated	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2499	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144		15.2252
Total	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

UCLA Hilgard Faculty Housing 101419 - 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	0.1740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2499	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144		15.2252
Total	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

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
Emergency Generator	1	0.5	13	161	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (100 - 175 HP)	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178

11.0 Vegetation

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Summer

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

UCLA Hilgard Faculty Housing 101419
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	50.00	1000sqft	0.00	50,000.00	0
----- Apartments Mid Rise	100.00	Dwelling Unit	0.63	120,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - population est at 200

Construction Phase - Schedule per project plans
Possible 6 day work week

Off-road Equipment - Bldg equio per engr plus forks

Off-road Equipment - Grading equip per engineer

Off-road Equipment - No asphalt

Trips and VMT - Haul trip adjust for 10 CY trucks

Grading -

Architectural Coating - ESt 25% exterior paint

Woodstoves - No hearths

Area Coating - Est 25% exterior paint

Energy Use - Nat gas adjust to yield engr estimate
Elec adjust to yueld enge est

Construction Off-road Equipment Mitigation - All const equip Tier 3
Water 3x/day

Area Mitigation - Low VOC paints for operation

Energy Mitigation - Exceed Title 24 by 20% per UCLA req
No credit for 2016 or 2020 code over default

Water Mitigation - Low flow fixtures per CalGreen

Waste Mitigation - At least 50% reduction per CA law

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - Emerg gen 150 kVa; Assume 1/2 hr/2 wk test

Landscape Equipment - x

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	81,000.00	25,000.00
tblAreaCoating	Area_Residential_Exterior	81000	25000
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	2.00	52.00
tblConstructionPhase	NumDays	100.00	600.00
tblConstructionPhase	NumDays	5.00	43.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3,054.10	3,900.00
tblEnergyUse	NT24NG	4,831.00	1,158.55

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tblEnergyUse	T24NG	4,385.94	1,051.81
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	85.00	0.00
tblFireplaces	NumberNoFireplace	10.00	100.00
tblFireplaces	NumberWood	5.00	0.00
tblGrading	MaterialExported	0.00	23,129.00
tblLandUse	LandUseSquareFeet	100,000.00	120,000.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	2.63	0.63
tblLandUse	Population	286.00	200.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	HaulingTripNumber	2,891.00	4,626.00
tblVehicleTrips	ST_TR	6.39	2.49

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tblVehicleTrips	SU_TR	5.86	2.28
tblVehicleTrips	WD_TR	6.65	2.59
tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

2.0 Emissions Summary

UCLA Hilgard Faculty Housing 101419 - 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					
2020	1.9727	37.2885	19.3309	0.0927	1.7734	0.6683	2.4417	0.4785	0.6179	1.0963			9,780.4847	1.2318	0.0000	9,811.2797
2021	1.3771	10.6409	11.7671	0.0280	1.1612	0.4813	1.6424	0.3107	0.4536	0.7643			2,774.7425	0.3471	0.0000	2,783.4202
2022	16.4264	11.6316	14.4632	0.0341	1.4294	0.5154	1.9448	0.3819	0.4919	0.8737			3,341.0886	0.3746	0.0000	3,350.4540
Maximum	16.4264	37.2885	19.3309	0.0927	1.7734	0.6683	2.4417	0.4785	0.6179	1.0963			9,780.4847	1.2318	0.0000	9,811.2797

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					
2020	1.4146	37.0420	22.2648	0.0927	1.7427	0.6807	2.4234	0.4738	0.6770	1.1508			9,780.4847	1.2318	0.0000	9,811.2797
2021	0.8061	8.7924	12.6209	0.0280	1.1612	0.4341	1.5953	0.3107	0.4333	0.7440			2,774.7425	0.3471	0.0000	2,783.4202
2022	16.2396	11.9812	16.5532	0.0341	1.4294	0.7088	2.1383	0.3819	0.7079	1.0897			3,341.0886	0.3746	0.0000	3,350.4540
Maximum	16.2396	37.0420	22.2648	0.0927	1.7427	0.7088	2.4234	0.4738	0.7079	1.1508			9,780.4847	1.2318	0.0000	9,811.2797

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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	6.65	2.93	-12.90	0.00	0.70	-9.53	-2.12	0.40	-16.30	-9.15	0.00	0.00	0.00	0.00	0.00	0.00

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	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Energy	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679
Mobile	0.4533	2.2910	6.0264	0.0220	1.8820	0.0187	1.9007	0.5037	0.0175	0.5211			2,241.8411	0.1173		2,244.7744
Stationary	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	3.4095	2.8113	14.7936	0.0235	1.8820	0.0883	1.9703	0.5037	0.0871	0.5907			2,395.5327	0.1425	1.3100e-003	2,399.4852

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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	lb/day										lb/day					
Area	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Energy	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
Mobile	0.4533	2.2910	6.0264	0.0220	1.8820	0.0187	1.9007	0.5037	0.0175	0.5211			2,241.8411	0.1173		2,244.7744
Stationary	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	3.4089	2.8060	14.7913	0.0234	1.8820	0.0879	1.9699	0.5037	0.0866	0.5903			2,388.7523	0.1424	1.1800e-003	2,392.6645

	ROG	NOx	CO	SO2	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	0.02	0.19	0.02	0.17	0.00	0.49	0.02	0.00	0.49	0.07	0.00	0.00	0.28	0.09	9.92	0.28

3.0 Construction Detail

Construction Phase

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2020	10/1/2020	6	1	
2	Grading	Grading	10/2/2020	12/1/2020	6	52	
3	Building Construction	Building Construction	12/2/2020	11/1/2022	6	600	
4	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	6	43	
5	Paving	Paving	10/1/2022	10/6/2022	6	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 243,000; Residential Outdoor: 25,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,000 (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	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	4.00	221	0.50
Grading	Concrete/Industrial Saws	0	0.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Rollers	0	0.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,626.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	93.00	19.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6853	8.4307	4.0942	9.7400e-003		0.3353	0.3353		0.3085	0.3085			943.4872	0.3051		951.1158
Total	0.6853	8.4307	4.0942	9.7400e-003	0.5303	0.3353	0.8656	0.0573	0.3085	0.3658			943.4872	0.3051		951.1158

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	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
Worker	0.0256	0.0181	0.2005	5.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			55.3710	1.7500e-003		55.4147
Total	0.0256	0.0181	0.2005	5.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			55.3710	1.7500e-003		55.4147

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	0.2382	4.8716	5.8579	9.7400e-003		0.2405	0.2405		0.2405	0.2405			943.4872	0.3051		951.1158
Total	0.2382	4.8716	5.8579	9.7400e-003	0.2068	0.2405	0.4473	0.0223	0.2405	0.2629			943.4872	0.3051		951.1158

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	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
Worker	0.0256	0.0181	0.2005	5.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			55.3710	1.7500e-003		55.4147
Total	0.0256	0.0181	0.2005	5.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153			55.3710	1.7500e-003		55.4147

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0503	0.0000	0.0503	7.6200e-003	0.0000	7.6200e-003			0.0000			0.0000
Off-Road	1.1001	11.3230	12.7053	0.0220		0.5840	0.5840		0.5373	0.5373			2,131.8694	0.6895		2,149.1067
Total	1.1001	11.3230	12.7053	0.0220	0.0503	0.5840	0.6343	7.6200e-003	0.5373	0.5449			2,131.8694	0.6895		2,149.1067

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7960	25.9112	6.0241	0.0691	1.5555	0.0829	1.6384	0.4264	0.0793	0.5057			7,482.502 2	0.5371		7,495.929 1
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
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458			166.1131	5.2400e-003		166.2440
Total	0.8726	25.9655	6.6256	0.0707	1.7231	0.0843	1.8074	0.4708	0.0806	0.5514			7,648.615 3	0.5423		7,662.173 0

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0196	0.0000	0.0196	2.9700e-003	0.0000	2.9700e-003			0.0000			0.0000
Off-Road	0.5420	11.0765	15.6392	0.0220		0.5964	0.5964		0.5964	0.5964			2,131.869 4	0.6895		2,149.106 7
Total	0.5420	11.0765	15.6392	0.0220	0.0196	0.5964	0.6160	2.9700e-003	0.5964	0.5994			2,131.869 4	0.6895		2,149.106 7

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7960	25.9112	6.0241	0.0691	1.5555	0.0829	1.6384	0.4264	0.0793	0.5057			7,482.502 2	0.5371		7,495.929 1
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
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458			166.1131	5.2400e-003		166.2440
Total	0.8726	25.9655	6.6256	0.0707	1.7231	0.0843	1.8074	0.4708	0.0806	0.5514			7,648.615 3	0.5423		7,662.173 0

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9696	9.3939	7.9297	0.0132		0.5447	0.5447		0.5135	0.5135			1,269.485 5	0.2874		1,276.670 7
Total	0.9696	9.3939	7.9297	0.0132		0.5447	0.5447		0.5135	0.5135			1,269.485 5	0.2874		1,276.670 7

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0706	2.0207	0.5840	4.8000e-003	0.1216	9.6600e-003	0.1313	0.0350	9.2400e-003	0.0443			511.9532	0.0342		512.8091
Worker	0.4753	0.3371	3.7294	0.0103	1.0395	8.6900e-003	1.0482	0.2757	8.0100e-003	0.2837			1,029.9010	0.0325		1,030.7125
Total	0.5459	2.3578	4.3134	0.0151	1.1612	0.0184	1.1795	0.3107	0.0173	0.3280			1,541.8542	0.0667		1,543.5216

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.4855	0.2874		1,276.6707
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.4855	0.2874		1,276.6707

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0706	2.0207	0.5840	4.8000e-003	0.1216	9.6600e-003	0.1313	0.0350	9.2400e-003	0.0443			511.9532	0.0342		512.8091
Worker	0.4753	0.3371	3.7294	0.0103	1.0395	8.6900e-003	1.0482	0.2757	8.0100e-003	0.2837			1,029.9010	0.0325		1,030.7125
Total	0.5459	2.3578	4.3134	0.0151	1.1612	0.0184	1.1795	0.3107	0.0173	0.3280			1,541.8542	0.0667		1,543.5216

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	0.8730	8.4967	7.8089	0.0132		0.4690	0.4690		0.4421	0.4421			1,269.5925	0.2850		1,276.7168
Total	0.8730	8.4967	7.8089	0.0132		0.4690	0.4690		0.4421	0.4421			1,269.5925	0.2850		1,276.7168

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

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
Vendor	0.0606	1.8409	0.5335	4.7500e-003	0.1216	3.8900e-003	0.1255	0.0350	3.7200e-003	0.0388			507.9565	0.0328		508.7763
Worker	0.4434	0.3033	3.4248	0.0100	1.0395	8.4000e-003	1.0479	0.2757	7.7400e-003	0.2834			997.1935	0.0293		997.9271
Total	0.5041	2.1442	3.9582	0.0148	1.1612	0.0123	1.1735	0.3107	0.0115	0.3222			1,505.1500	0.0621		1,506.7034

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.5925	0.2850		1,276.7168
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.5925	0.2850		1,276.7168

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

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
Vendor	0.0606	1.8409	0.5335	4.7500e-003	0.1216	3.8900e-003	0.1255	0.0350	3.7200e-003	0.0388			507.9565	0.0328		508.7763
Worker	0.4434	0.3033	3.4248	0.0100	1.0395	8.4000e-003	1.0479	0.2757	7.7400e-003	0.2834			997.1935	0.0293		997.9271
Total	0.5041	2.1442	3.9582	0.0148	1.1612	0.0123	1.1735	0.3107	0.0115	0.3222			1,505.1500	0.0621		1,506.7034

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7855	7.5767	7.7136	0.0132		0.3986	0.3986		0.3760	0.3760			1,269.9763	0.2835		1,277.0627
Total	0.7855	7.5767	7.7136	0.0132		0.3986	0.3986		0.3760	0.3760			1,269.9763	0.2835		1,277.0627

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0569	1.7495	0.5050	4.7100e-003	0.1216	3.4100e-003	0.1251	0.0350	3.2600e-003	0.0383			503.4435	0.0316		504.2345
Worker	0.4165	0.2739	3.1543	9.6500e-003	1.0395	8.1400e-003	1.0477	0.2757	7.4900e-003	0.2832			962.1496	0.0265		962.8119
Total	0.4734	2.0234	3.6593	0.0144	1.1612	0.0116	1.1727	0.3107	0.0108	0.3215			1,465.5931	0.0581		1,467.0464

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	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.9763	0.2835		1,277.0627
Total	0.3020	6.6482	8.6627	0.0132		0.4218	0.4218		0.4218	0.4218			1,269.9763	0.2835		1,277.0627

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0569	1.7495	0.5050	4.7100e-003	0.1216	3.4100e-003	0.1251	0.0350	3.2600e-003	0.0383			503.4435	0.0316		504.2345
Worker	0.4165	0.2739	3.1543	9.6500e-003	1.0395	8.1400e-003	1.0477	0.2757	7.4900e-003	0.2832			962.1496	0.0265		962.8119
Total	0.4734	2.0234	3.6593	0.0144	1.1612	0.0116	1.1727	0.3107	0.0108	0.3215			1,465.5931	0.0581		1,467.0464

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.7673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817			281.4481	0.0183		281.9062
Total	14.9719	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817			281.4481	0.0183		281.9062

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.5 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0851	0.0560	0.6444	1.9700e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			196.5682	5.4100e-003		196.7035
Total	0.0851	0.0560	0.6444	1.9700e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			196.5682	5.4100e-003		196.7035

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	14.7673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5893	3.2389	3.4172	2.9700e-003		0.2734	0.2734		0.2734	0.2734			281.4481	0.0183		281.9062
Total	15.3567	3.2389	3.4172	2.9700e-003		0.2734	0.2734		0.2734	0.2734			281.4481	0.0183		281.9062

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.5 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0851	0.0560	0.6444	1.9700e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			196.5682	5.4100e-003		196.7035
Total	0.0851	0.0560	0.6444	1.9700e-003	0.2124	1.6600e-003	0.2140	0.0563	1.5300e-003	0.0579			196.5682	5.4100e-003		196.7035

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0881	0.5523	0.4627	1.0700e-003		0.0215	0.0215		0.0215	0.0215			75.7745	7.8700e-003		75.9711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0881	0.5523	0.4627	1.0700e-003		0.0215	0.0215		0.0215	0.0215			75.7745	7.8700e-003		75.9711

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0224	0.0147	0.1696	5.2000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			51.7285	1.4200e-003		51.7641
Total	0.0224	0.0147	0.1696	5.2000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			51.7285	1.4200e-003		51.7641

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	0.0000	0.0000	0.0000	1.0700e-003		0.0000	0.0000		0.0000	0.0000			75.7745	7.8700e-003		75.9711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	1.0700e-003		0.0000	0.0000		0.0000	0.0000			75.7745	7.8700e-003		75.9711

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0224	0.0147	0.1696	5.2000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			51.7285	1.4200e-003		51.7641
Total	0.0224	0.0147	0.1696	5.2000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152			51.7285	1.4200e-003		51.7641

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

UCLA Hilgard Faculty Housing 101419 - 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	0.4533	2.2910	6.0264	0.0220	1.8820	0.0187	1.9007	0.5037	0.0175	0.5211			2,241.8411	0.1173		2,244.7744
Unmitigated	0.4533	2.2910	6.0264	0.0220	1.8820	0.0187	1.9007	0.5037	0.0175	0.5211			2,241.8411	0.1173		2,244.7744

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	259.00	249.00	228.00	865,028	865,028
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	259.00	249.00	228.00	865,028	865,028

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	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
Enclosed Parking with Elevator	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

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
NaturalGas Unmitigated	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679

UCLA Hilgard Faculty Housing 101419 - 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					
Apartments Mid Rise	605.578	6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		6.5300e-003	0.0558	0.0238	3.6000e-004		4.5100e-003	4.5100e-003		4.5100e-003	4.5100e-003			71.2445	1.3700e-003	1.3100e-003	71.6679

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					
Apartments Mid Rise	0.547945	5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		5.9100e-003	0.0505	0.0215	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003			64.4641	1.2400e-003	1.1800e-003	64.8472

6.0 Area Detail

6.1 Mitigation Measures Area

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252
Unmitigated	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2499	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144		15.2252
Total	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

UCLA Hilgard Faculty Housing 101419 - 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	0.1740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3937					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	0.2499	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144		15.2252
Total	2.8176	0.0953	8.2641	4.4000e-004		0.0457	0.0457		0.0457	0.0457			14.8662	0.0144	0.0000	15.2252

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

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
Emergency Generator	1	0.5	13	161	0.73	Diesel

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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10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (100 - 175 HP)	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178
Total	0.1321	0.3692	0.4794	6.3000e-004		0.0194	0.0194		0.0194	0.0194			67.5809	9.4700e-003		67.8178

11.0 Vegetation

UCLA Hilgard Faculty Housing 101419 - Los Angeles-South Coast County, Winter

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin

CRITERIA POLLUTANT	STANDARD	AVERAGING TIME	DESIGNATION ^{a)}	ATTAINMENT DATE ^{b)}
1-Hour Ozone	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 Originally 11/15/2010 (not attained) ^{c)}
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone^{d)}	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	7/20/2032
	NAAQS	2015 8-Hour (0.070 ppm)	Nonattainment (Extreme)	8/3/2038
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032
CO	NAAQS	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	CAAQS	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
NO₂^{e)}	NAAQS	1-Hour (0.10 ppm)	Unclassifiable/Attainment	N/A (attained)
	NAAQS	Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-Hour (0.18 ppm) Annual (0.030 ppm)	Attainment	---
SO₂^{f)}	NAAQS	1-Hour (75 ppb)	Designations Pending (expect Uncl./Attainment)	N/A (attained)
	NAAQS	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/Attainment	3/19/1979 (attained)
PM₁₀	NAAQS	1987 24-hour (150 µg/m ³)	Attainment (Maintenance) ^{g)}	7/26/2013 (attained)
	CAAQS	24-hour (50 µg/m ³) Annual (20 µg/m ³)	Nonattainment	N/A
PM_{2.5}^{h)}	NAAQS	2006 24-Hour (35 µg/m ³)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m ³)	Attainment	8/24/2016
	NAAQS	2012 Annual (12.0 µg/m ³)	Nonattainment (Serious)	12/31/2025
	CAAQS	Annual (12.0 µg/m ³)	Nonattainment	N/A

(over)

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin

CRITERIA POLLUTANT	STANDARD	AVERAGING TIME	DESIGNATION ^{a)}	ATTAINMENT DATE ^{b)}
Lead	NAAQS	3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) ⁱ⁾	12/31/2015
Hydrogen Sulfide (H ₂ S)	CAAQS	1-Hour (0.03 ppm/42 µg/m ³)	Attainment	---
Sulfates	CAAQS	24-Hour (25 µg/m ³)	Attainment	---
Vinyl Chloride	CAAQS	24-Hour (0.01 ppm/26 µg/m ³)	Attainment	---

- a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable
- b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration
- c) 1-hour O₃ standard (0.12 ppm) was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements
- d) 1997 8-hour O₃ standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the revoked 1997 O₃ standard is still subject to anti-backsliding requirements
- e) New NO₂ 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO₂ standard retained
- f) The 1971 annual and 24-hour SO₂ standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO₂ 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.
- g) Annual PM₁₀ standard was revoked, effective December 18, 2006; 24-hour PM₁₀ NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM₁₀ maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.
- h) Attainment deadline for the 2006 24-Hour PM_{2.5} NAAQS (designation effective December 14, 2009) is December 31, 2019 (end of the 10th calendar year after effective date of designations for Serious nonattainment areas). Annual PM_{2.5} standard was revised on January 15, 2013, effective March 18, 2013, from 15 to 12 µg/m³. Designations effective April 15, 2015, so Serious area attainment deadline is December 31, 2025.
- i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.