Appendix D

Energy Worksheets

Artisan Project

Summary of Energy Use During Construction

Electricty		
Water Consumption	4,524	kWh
Temporary Power (lighting, tools)	17,438	kWh
Total:	**21,962**	kWh
Gasoline		
On Road	24,038	Gallons
Off Road	0	Gallons
Total:	**24,038**	Gallons
Diesel		
On Road	84,648	Gallons
Off Road	101,472	Gallons
Total:	**186,120**	Gallons
Total Mobile	**210,159**	

Summary of Energy Use During Operations

		Baseline (Buildout)	Project Without Project Features/MXD	Project With Project Features/MXD		Percent Reduction due to Project Features
Electricity						
Electricity (building)		476,055	1,802,592	1,675,286	kWh/year	-7%
Electricity (water)		37,724	341,795	262,013	kWh/year	-23%
EV Chargers			3,011	3,011	kWh/year	
	Electricity Total	**513,779**	**2,147,398**	**1,940,310**	**kWh/year**	**-10%**
Natural Gas						
Natural Gas (building)		51,702	4,921,640	4,687,276		
Fireplaces			650,250	98,571		
	Natural Gas Total	**51,702**	**5,306,562**	**4,785,848**	**cu ft/year**	**-10%**
Mobile						
Gasoline		75,309	327,790	221,739	Gallons/year	-32%
Diesel		12,191	53,065	35,897	Gallons/year	-32%
	Mobile Total	**87,500**	**380,855**	**257,636**	**Gallons/year**	**-32%**

Construction Electricity Usage

Caterpillar 40-C4.4 Generator[a]

Peak Power Rating - Prime (kW)	36
Typical Load	70%
Average Output (kW)	25.2
Hours per Day	2
Average Daily Output (kWh)	50.4
Building Construction Phase Duration (days)	346
Total Construction (kWh)	17,438
Total Construction (MWh)	17.4

[a]https://www.albancat.com/content/uploads/2014/06/40-C4.4-Spec-Sheet.pdf

Calculation of Diesel Usage During Cosnstruciton (Offroad Equipment):

Phase Name	Off Road Equipment Type	Units	Hours	HP	Load Factor	Avg. Daily Factor	Number of Days	Diesel Fuel Usage	
Demolition	Air Compressors	1	8	78	0.48	0.6	23	207	
Demolition	Concrete/Industrial Saws	1	8	81	0.73	0.6	23	326	
Demolition	Cranes	1	8	231	0.29	0.6	23	370	
Demolition	Excavators	1	8	158	0.38	0.6	23	331	
Demolition	Other Construction Equipment	1	4	172	0.42	0.6	23	199	
Demolition	Rubber Tired Dozers	0	1	247	0.4	0.6	23	0	
Demolition	Tractors/Loaders/Backhoes	1	8	97	0.37	0.6	23	198	
Grading	Air Compressors	1	8	78	0.48	0.6	152	1,366	
Grading	Bore/Drill Rigs	3	8	221	0.5	0.6	152	12,093	
Grading	Cement and Mortar Mixers	1	8	9	0.56	0.6	152	184	
Grading	Concrete/Industrial Saws	1	8	81	0.73	0.6	152	2,157	
Grading	Cranes	1	8	231	0.29	0.6	152	2,444	
Grading	Generator Sets	1	8	84	0.74	0.6	152	2,268	
Grading	Other Construction Equipment	1	4	172	0.42	0.6	152	1,318	
Grading	Pumps	1	8	84	0.74	0.6	152	2,268	
Grading	Rough Terrain Forklifts	1	8	100	0.4	0.6	152	1,459	
Grading	Rubber Tired Dozers	0	1	247	0.4	0.6	152	0	
Grading	Rubber Tired Loaders	1	8	203	0.36	0.6	152	2,666	
Grading	Signal Boards	1	8	6	0.82	0.6	152	179	
Grading	Skid Steer Loaders	1	8	65	0.37	0.6	152	877	
Grading	Welders	1	8	46	0.45	0.6	152	755	
Mat Foundation	Air Compressors	1	8	78	0.48	0.6	2	18	
Mat Foundation	Concrete/Industrial Saws	1	8	81	0.73	0.6	2	28	
Mat Foundation	Forklifts	1	8	89	0.2	0.6	2	9	
Mat Foundation	Generator Sets	1	16	84	0.74	0.6	2	60	
Mat Foundation	Graders	0	8	187	0.41	0.6	2	0	
Mat Foundation	Other Construction Equipment	1	4	172	0.42	0.6	2	17	
Mat Foundation	Pumps	4	16	84	0.74	0.6	2	239	
Mat Foundation	Signal Boards	1	16	6	0.82	0.6	2	5	
Mat Foundation	Tractors/Loaders/Backhoes	0	8	97	0.37	0.6	2	0	
Building Construction	Aerial Lifts	4	8	63	0.31	0.6	346	6,487	
Building Construction	Air Compressors	2	8	78	0.48	0.6	346	6,218	
Building Construction	Cement and Mortar Mixers	1	8	9	0.56	0.6	346	419	
Building Construction	Concrete/Industrial Saws	2	8	81	0.73	0.6	346	9,820	
Building Construction	Cranes	2	8	231	0.29	0.6	346	11,126	
Building Construction	Forklifts	4	8	89	0.2	0.6	346	5,912	
Building Construction	Generator Sets	1	8	84	0.74	0.6	346	5,162	
Building Construction	Pumps	1	8	84	0.74	0.6	346	5,162	
Building Construction	Signal Boards	1	8	6	0.82	0.6	346	409	
Building Construction	Skid Steer Loaders	1	8	65	0.37	0.6	346	1,997	
Building Construction	Tractors/Loaders/Backhoes	0	8	97	0.37	0.6	346	0	
Building Construction	Welders	4	8	46	0.45	0.6	346	6,876	
Architectural Coating	Air Compressors	0	6	78	0.48	0.6	64	0	
Overlap Building Construction/Paving/Landsca	Aerial Lifts	3	8	63	0.31	0.6	44	619	
Overlap Building Construction/Paving/Landsca	Air Compressors	2	8	78	0.48	0.6	44	791	
Overlap Building Construction/Paving/Landsca	Cement and Mortar Mixers	1	8	9	0.56	0.6	44	53	
Overlap Building Construction/Paving/Landsca	Concrete/Industrial Saws	1	8	81	0.73	0.6	44	624	
Overlap Building Construction/Paving/Landsca	Cranes	1	8	231	0.29	0.6	44	707	
Overlap Building Construction/Paving/Landsca	Forklifts	1	8	89	0.2	0.6	44	188	
Overlap Building Construction/Paving/Landsca	Generator Sets	1	8	84	0.74	0.6	44	656	
Overlap Building Construction/Paving/Landsca	Other Construction Equipment	1	2	172	0.42	0.6	44	191	
Overlap Building Construction/Paving/Landsca	Pavers	0	8	130	0.42	0.6	44	0	
Overlap Building Construction/Paving/Landsca	Paving Equipment	1	8	132	0.36	0.6	44	502	
Overlap Building Construction/Paving/Landsca	Plate Compactors	1	8	8	0.43	0.6	44	36	
Overlap Building Construction/Paving/Landsca	Pumps	0	8	84	0.74	0.6	44	0	
Overlap Building Construction/Paving/Landsca	Rollers	0	8	80	0.38	0.6	44	0	
Overlap Building Construction/Paving/Landsca	Signal Boards	1	8	6	0.82	0.6	44	52	
Overlap Building Construction/Paving/Landsca	Skid Steer Loaders	1	8	65	0.37	0.6	44	254	
Overlap Building Construction/Paving/Landsca	Surfacing Equipment	0	8	263	0.3	0.6	44	0	
Overlap Building Construction/Paving/Landsca	Tractors/Loaders/Backhoes	1	8	97	0.37	0.6	44	379	
Overlap Building Construction/Paving/Landsca	Trenchers	0	8	78	0.5	0.6	44	0	
Overlap Building Construction/Paving/Landsca	Welders	1	8	46	0.45	0.6	44	219	
0	0	0	0	0	0	0.6	0	0	
0	0	0	0	0	0	0.6	0	0	
						Total Diesel Usage for Construction (Offr		**101,472.4**	**gallons of diesel fuel**

gallons of diesel fuel per horsepower-hour=	0.05

Notes: Equipment assumptions are provide in the CalEEMod output files and fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

EMFAC2017 Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	Veh_Class	Fuel	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)	Miles per Gallon
South Coast	LDA	GAS	Aggregate	4,079,718	153,812,692	19,249,547	4,944	0	31.1
South Coast	LDT1	GAS	Aggregate	480,760	17,733,494	2,225,423	662	0	26.8
South Coast	LDT2	GAS	Aggregate	1,420,578	53,205,335	6,674,513	2,112	0	25.2
						Construction Worker Trip (Composite LDA/LDT1/LDT2):			**28.6**
South Coast	HHDT	DSL	Aggregate	59,068	7,175,177	592,244	0	1026.9	**7.0**

Notes: Consistent with CalEEMod, a construction worker trip is assumed to be a composite of 50% LDA , 25% for LDT1, and 25% for LDT2. Used EMFAC 2011 Categories for construciton as EMFAC2011 has specific categories for vehicle class T7.

Calculation of Gasoline and Diesel Usage During Construction (Onroad Vehicles):

Phase Name	Daily Woker Trips	Daily Vendor Trips	Days	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Trip Length (miles)			Total Length (miles)			Avg. Daily Factor	Gallons of Fuel	
							Worker	Vendor	Haul	Worker	Vendor	Haul	(worker and vendor)	Gasoline	Diesel
Demolition	44	20	23	1012	460	0	14.7	29	20	14876.4	13340	0	0.6	312.6	1,145.6
Grading	52	200	152	7904	30400	0	14.7	25	20	116188.8	760000	0	0.6	2,441.5	65,264.2
Mat Foundation	132	670	2	264	1340	0	14.7	6.9	20	3880.8	9246	0	0.6	81.5	794.0
Building Construction	176	80	346	60896	27680	0	14.7	6.9	20	895171.2	190992	0	0.6	18,810.7	16,401.2
Architectural Coating	0	0	64	0	0	0	14.7	6.9	20	0	0	0	0.6	0.0	0.0
Overlap Building Construction/Paving/Lanc	176	40	44	7744	1760	0	14.7	6.9	20	113836.8	12144	0	0.6	2,392.1	1,042.9
													Total:	**24,038.5**	**84,647.8**

Worker Miles per gallon=	28.55	gasoline
Vedor/Haul miles per gallon=	6.99	diesel

Notes: Consistent with CalEEMod worker vehicles are assumed to be gasoline and 50% LDA, 25%LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy Duty Trucks (T7).

Water Usage for Control of Fugitive Dust during Construction:

Phase	Days	Average Daily Acreage Distrubed	Gallons Per Year	Electricity (kWhr)
Demolition	23	0.88	61,125	595
Grading	152	0.88	403,955	3,929
Mat Foundation	2	0.0	0	0
Building Construction	346	0.0	0	0
Architectural Coating	64	0.0	0	0
Overlap Building Construction/Paving/L	44	0.0	0	0
		Total:	**465,080**	**4,524**

Water application rate=	3020	gal/acre/day
kWhr equivalent=	0.01	kWhr

Notes: 1) Gallons per year of water usage for dust control is calculated based on a minimum control efficiency of 66% (three times daily) with an application rate of 3,020 gal/acre/day (Air & Waste Management Association Air Pollution Engineering Manual (1992 Edition)) and average of 26 construction days per month.
2) CalEEMod Default: Each gallon of delivered potable water in Southern California is associated with 0.009727 kWhr of electricity).

Peak Electricity Demand Calculations

Electrical Load Factor Equation

$$f_{Load} = \frac{\text{Average load}}{\text{Maximum load in given time period}}$$

Load Factor (%)[1] **52%**

Project Electricity Demand (Operational)

Annual Demand	Baseline (Existing)	Project
Building (MWh)	476	1,675
Water (MWh)	38	262
Total (MWh)	514	1,940
Average Daily Demand		
Building (kWh)	1,304	4,590
Water (kWh)	103	718
Total (kWh)	1,408	5,316
Average Load		
Building (kW)	54	191
Water (kW)	4	30
Total (kW)	59	221

Peak Load Calculation

Peak Load (kW)[2]	109	398
Systemwide Peak Load (MW)		5,854
Percent of Peak		0.007%

[1] 2017 Report: System Efficiency of California's Electric Grid. California Public Utilities Cor 2017. Page 11, Figure 6. Visual estimate.

[2] Peak Load is conservatively calculated without any reductions from removal of existing uses.

EMFAC2017 Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
South Coast	2020	Annual	HHDT	DSL	Aggregated	Aggregated	56,120	6,743,707	559,369	0.00	1,073.95
South Coast	2020	Annual	HHDT	GAS	Aggregated	Aggregated	62	5,725	1,245	1.47	0.00
South Coast	2020	Annual	LDA	DSL	Aggregated	Aggregated	31,076	1,254,452	146,424	0.00	27.91
South Coast	2020	Annual	LDA	GAS	Aggregated	Aggregated	3,953,775	155,194,410	18,642,464	5,389.41	0.00
South Coast	2020	Annual	LDT1	DSL	Aggregated	Aggregated	319	7,980	1,139	0.00	0.37
South Coast	2020	Annual	LDT1	GAS	Aggregated	Aggregated	437,140	16,649,906	2,009,947	669.90	0.00
South Coast	2020	Annual	LDT2	DSL	Aggregated	Aggregated	7,213	323,322	35,806	0.00	9.82
South Coast	2020	Annual	LDT2	GAS	Aggregated	Aggregated	1,346,079	52,129,905	6,303,494	2,298.92	0.00
South Coast	2020	Annual	LHDT1	DSL	Aggregated	Aggregated	56,903	2,486,530	715,768	0.00	117.79
South Coast	2020	Annual	LHDT1	GAS	Aggregated	Aggregated	108,459	4,003,593	1,615,879	390.69	0.00
South Coast	2020	Annual	LHDT2	DSL	Aggregated	Aggregated	22,880	965,315	287,800	0.00	50.75
South Coast	2020	Annual	LHDT2	GAS	Aggregated	Aggregated	17,784	634,396	264,957	71.05	0.00
South Coast	2020	Annual	MCY	GAS	Aggregated	Aggregated	167,287	1,221,839	334,574	34.08	0.00
South Coast	2020	Annual	MDV	DSL	Aggregated	Aggregated	16,089	669,900	79,575	0.00	26.39
South Coast	2020	Annual	MDV	GAS	Aggregated	Aggregated	921,419	33,053,258	4,259,404	1,782.51	0.00
South Coast	2020	Annual	MH	DSL	Aggregated	Aggregated	5,531	58,524	553	0.00	5.71
South Coast	2020	Annual	MH	GAS	Aggregated	Aggregated	19,817	197,548	1,982	39.66	0.00
South Coast	2020	Annual	MHDT	DSL	Aggregated	Aggregated	64,883	4,028,069	635,977	0.00	404.94
South Coast	2020	Annual	MHDT	GAS	Aggregated	Aggregated	14,534	804,969	290,799	164.24	0.00
South Coast	2020	Annual	OBUS	DSL	Aggregated	Aggregated	3,045	227,229	29,935	0.00	28.57
South Coast	2020	Annual	OBUS	GAS	Aggregated	Aggregated	4,050	176,715	81,028	36.25	0.00
South Coast	2020	Annual	SBUS	DSL	Aggregated	Aggregated	3,809	120,609	43,960	0.00	16.16
South Coast	2020	Annual	SBUS	GAS	Aggregated	Aggregated	1,187	49,914	4,747	5.55	0.00
South Coast	2020	Annual	UBUS	DSL	Aggregated	Aggregated	41	5,505	165	0.00	0.86
South Coast	2020	Annual	UBUS	GAS	Aggregated	Aggregated	456	33,185	1,822	8.00	0.00

					MPG	Gallons Per Mile
Totals	281,046,505.26		10,891.73	1,763.22	**22.2**	0.05
Total (GAS)	264,155,363.07	0.94			**24.3**	0.04
Total (DSL)	16,891,142.18	0.06			**9.6**	0.10

Baseline Year
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
South Coast	2025	Annual	HHDT	DSL	Aggregated	Aggregated	61,486	7,443,978	623,154	0.00	1,030.97
South Coast	2025	Annual	HHDT	GAS	Aggregated	Aggregated	52	6,418	1,038	1.45	0.00
South Coast	2025	Annual	LDA	DSL	Aggregated	Aggregated	41,133	1,572,343	195,633	0.00	30.79
South Coast	2025	Annual	LDA	GAS	Aggregated	Aggregated	4,151,577	152,637,426	19,580,204	4,654.49	0.00
South Coast	2025	Annual	LDT1	DSL	Aggregated	Aggregated	224	5,400	793	0.00	0.24
South Coast	2025	Annual	LDT1	GAS	Aggregated	Aggregated	508,457	18,300,774	2,357,491	650.83	0.00
South Coast	2025	Annual	LDT2	DSL	Aggregated	Aggregated	11,455	454,897	55,966	0.00	12.08
South Coast	2025	Annual	LDT2	GAS	Aggregated	Aggregated	1,472,519	53,873,097	6,921,855	2,001.79	0.00
South Coast	2025	Annual	LHDT1	DSL	Aggregated	Aggregated	80,121	3,231,295	1,007,820	0.00	142.00
South Coast	2025	Annual	LHDT1	GAS	Aggregated	Aggregated	107,048	3,808,594	1,594,857	351.35	0.00
South Coast	2025	Annual	LHDT2	DSL	Aggregated	Aggregated	32,519	1,260,066	409,053	0.00	61.53
South Coast	2025	Annual	LHDT2	GAS	Aggregated	Aggregated	18,519	636,032	275,898	67.40	0.00
South Coast	2025	Annual	MCY	GAS	Aggregated	Aggregated	201,101	1,358,664	402,201	38.25	0.00
South Coast	2025	Annual	MDV	DSL	Aggregated	Aggregated	25,053	932,960	122,007	0.00	32.04
South Coast	2025	Annual	MDV	GAS	Aggregated	Aggregated	970,308	33,072,242	4,510,960	1,517.42	0.00
South Coast	2025	Annual	MH	DSL	Aggregated	Aggregated	7,016	70,923	702	0.00	6.46
South Coast	2025	Annual	MH	GAS	Aggregated	Aggregated	19,649	198,231	1,966	36.85	0.00
South Coast	2025	Annual	MHDT	DSL	Aggregated	Aggregated	72,254	4,560,733	717,642	0.00	401.74
South Coast	2025	Annual	MHDT	GAS	Aggregated	Aggregated	15,094	826,709	302,004	156.13	0.00
South Coast	2025	Annual	OBUS	DSL	Aggregated	Aggregated	3,417	257,111	33,285	0.00	28.85
South Coast	2025	Annual	OBUS	GAS	Aggregated	Aggregated	4,007	157,671	80,178	30.17	0.00
South Coast	2025	Annual	SBUS	DSL	Aggregated	Aggregated	3,937	124,252	45,436	0.00	15.80
South Coast	2025	Annual	SBUS	GAS	Aggregated	Aggregated	1,706	67,040	6,824	7.06	0.00
South Coast	2025	Annual	UBUS	DSL	Aggregated	Aggregated	27	4,009	108	0.00	0.59
South Coast	2025	Annual	UBUS	GAS	Aggregated	Aggregated	472	34,176	1,889	7.09	0.00

					MPG	Gallons Per Mile
Totals	284,895,041.40		9,520.29	1,763.08	**25.2**	0.04
Total (GAS)	264,977,073.82	0.93			**27.8**	0.04
Total (DSL)	19,917,967.58	0.07			**11.3**	0.09

EMFAC Emission inventories for County

EMFAC2017 Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: **2023** (Construction Start Year)
Season: Annual

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Gasoline (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2023	HHDT	Aggregatec	Aggregatec	DSL	0.00	1026.93
Los Angeles	2023	HHDT	Aggregatec	Aggregatec	GAS	1.43	0.00
Los Angeles	2023	LDA	Aggregatec	Aggregatec	DSL	0.00	30.23
Los Angeles	2023	LDA	Aggregatec	Aggregatec	GAS	4943.66	0.00
Los Angeles	2023	LDT1	Aggregatec	Aggregatec	DSL	0.00	0.28
Los Angeles	2023	LDT1	Aggregatec	Aggregatec	GAS	661.89	0.00
Los Angeles	2023	LDT2	Aggregatec	Aggregatec	DSL	0.00	11.48
Los Angeles	2023	LDT2	Aggregatec	Aggregatec	GAS	2111.84	0.00
Los Angeles	2023	LHDT1	Aggregatec	Aggregatec	DSL	0.00	134.84
Los Angeles	2023	LHDT1	Aggregatec	Aggregatec	GAS	366.24	0.00
Los Angeles	2023	LHDT2	Aggregatec	Aggregatec	DSL	0.00	58.29
Los Angeles	2023	LHDT2	Aggregatec	Aggregatec	GAS	69.12	0.00
Los Angeles	2023	MCY	Aggregatec	Aggregatec	GAS	36.85	0.00
Los Angeles	2023	MDV	Aggregatec	Aggregatec	DSL	0.00	30.50
Los Angeles	2023	MDV	Aggregatec	Aggregatec	GAS	1617.67	0.00
Los Angeles	2023	MH	Aggregatec	Aggregatec	DSL	0.00	6.25
Los Angeles	2023	MH	Aggregatec	Aggregatec	GAS	38.12	0.00
Los Angeles	2023	MHDT	Aggregatec	Aggregatec	DSL	0.00	396.57
Los Angeles	2023	MHDT	Aggregatec	Aggregatec	GAS	159.42	0.00
Los Angeles	2023	OBUS	Aggregatec	Aggregatec	DSL	0.00	28.42
Los Angeles	2023	OBUS	Aggregatec	Aggregatec	GAS	32.39	0.00
Los Angeles	2023	SBUS	Aggregatec	Aggregatec	DSL	0.00	16.02
Los Angeles	2023	SBUS	Aggregatec	Aggregatec	GAS	6.51	0.00
Los Angeles	2023	UBUS	Aggregatec	Aggregatec	DSL	0.00	0.81
Los Angeles	2023	UBUS	Aggregatec	Aggregatec	GAS	7.76	0.00
						3,669,304,439	635,325,862
					Fuel Usage for Project Construction	84,648	101,472
					Percentage of County for Construction	0.0023%	0.016%

EMFAC Emission inventories for County

EMFAC2017 Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: **2025** (Operational Start Year)
Season: Annual

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Gasoline (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2025	HHDT	Aggregatec	Aggregatec	DSL	0.00	1030.97
Los Angeles	2025	HHDT	Aggregatec	Aggregatec	GAS	1.45	0.00
Los Angeles	2025	LDA	Aggregatec	Aggregatec	DSL	0.00	30.79
Los Angeles	2025	LDA	Aggregatec	Aggregatec	GAS	4654.49	0.00
Los Angeles	2025	LDT1	Aggregatec	Aggregatec	DSL	0.00	0.24
Los Angeles	2025	LDT1	Aggregatec	Aggregatec	GAS	650.83	0.00
Los Angeles	2025	LDT2	Aggregatec	Aggregatec	DSL	0.00	12.08
Los Angeles	2025	LDT2	Aggregatec	Aggregatec	GAS	2001.79	0.00
Los Angeles	2025	LHDT1	Aggregatec	Aggregatec	DSL	0.00	142.00
Los Angeles	2025	LHDT1	Aggregatec	Aggregatec	GAS	351.35	0.00
Los Angeles	2025	LHDT2	Aggregatec	Aggregatec	DSL	0.00	61.53
Los Angeles	2025	LHDT2	Aggregatec	Aggregatec	GAS	67.40	0.00
Los Angeles	2025	MCY	Aggregatec	Aggregatec	GAS	38.25	0.00
Los Angeles	2025	MDV	Aggregatec	Aggregatec	DSL	0.00	32.04
Los Angeles	2025	MDV	Aggregatec	Aggregatec	GAS	1517.42	0.00
Los Angeles	2025	MH	Aggregatec	Aggregatec	DSL	0.00	6.46
Los Angeles	2025	MH	Aggregatec	Aggregatec	GAS	36.85	0.00
Los Angeles	2025	MHDT	Aggregatec	Aggregatec	DSL	0.00	401.74
Los Angeles	2025	MHDT	Aggregatec	Aggregatec	GAS	156.13	0.00
Los Angeles	2025	OBUS	Aggregatec	Aggregatec	DSL	0.00	28.85
Los Angeles	2025	OBUS	Aggregatec	Aggregatec	GAS	30.17	0.00
Los Angeles	2025	SBUS	Aggregatec	Aggregatec	DSL	0.00	15.80
Los Angeles	2025	SBUS	Aggregatec	Aggregatec	GAS	7.06	0.00
Los Angeles	2025	UBUS	Aggregatec	Aggregatec	DSL	0.00	0.59
Los Angeles	2025	UBUS	Aggregatec	Aggregatec	GAS	7.09	0.00
						3,474,906,889	643,523,976
					Net Fuel Usage for Project Operation	221,739	35,897
					Percentage of County for Operation	0.0064%	0.0056%

Artisan (Existing)

Los Angeles-South Coast County, Annual

Trip Summary Information

Total	*Average Daily Trip Rate*			*Annual VMT*
	Weekday	*Saturday*	*Sunday*	
Total	**878.00**	**833.00**	**405.00**	**1,943,236**

Gasoline and Diesel Usage

	Buildout Year		Existing (Baseline) Year	
	Gasoline	*Diesel*	*Gasoline*	*Diesel*
Miles/Gallon	24.3	9.6	27.8	11.3
% Fleet Mix	94.0%	6.0%	93.0%	7.0%
Total (Gallons):	**75,309**	**12,191**	**64,937**	**12,026**

Energy by Land Use - Natural Gas

Total	*kBTU/yr*	cu ft/year
Total	**54,287**	**51,702**

Energy by Land Use - Electricity

Land Uses	*kWH/yr*
Total	476,055

Water Detail

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
Total	2.21	1.35	37,724

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Artisan Project - Buildout Operations Without Project Features/MXD
Los Angeles-South Coast County, Annual

	Average Daily Trip Rate			Annual VMT
	Weekday	Saturday	Sunday	
Project	3,807	4,284	3,001	8,458,195
Total	3,807	4,284	3,001	8,458,195

Gasoline and Diesel Usage

	Gasoline	Diesel
Miles/Gallon	24.3	9.6
% Fleet Mix	94.0%	6.0%
Total (Gallons):	**327,790**	**53,065**

Energy by Land Use - Natural Gas

	kBTU/yr	cu ft/year
Land Uses	4,921,640	**4,687,276**
Fireplaces	650,250	619,286
Total	5,571,890	**5,306,562**

Note: CalEEmod provides pollutant emissions associated fireplaces, but does not include natural gas usage in output files. The provided usage rate is consistent with CalEEMod default factors (i.e., 90 percent of DUs have 30,000 btu/hr fireplaces, operate 25 days per year for three hours). In addition, the Project would include 6 fire pits for outdoor amenities. Fire pits are assumed to operate 115 days per year (i.e., colder days), and five hours per day.

Energy by Land Use - Electricity

Land Uses	kWH/yr
Total	**1,802,592**

Water Detail (Unmitigated)

Land Uses	Indoor Use (Mgal)	Outdoor Use (Mgal)	Electricity Use (kWh/yr)
Total	20.87	11.30	**341,795**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Artisan Project - Buildout Operations with Project Fetures and MXD (No MMs)
Los Angeles-South Coast County, Annual

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Mitigated*
	Weekday	*Saturday*	*Sunday*	
Project	2,479	2,790	1,954	5,721,684
Total	2,479	2,790	1,954	5,721,684

Mitigated Gasoline and Diesel Usage

	Gasoline	*Diesel*
Miles/Gallon	24.3	9.6
% Fleet Mix	94.0%	6.0%
Total (Gallons):	**221,739**	**35,897**

Note: Fleet mix is 92.3% gasoline @ 30.6 miles/gallon and 7.7% diesel @ 12.1 miles/gallon.

Energy by Land Use - Natural Gas (Mitigated)

	kBTU/yr	cu ft/year
Land Uses	4,921,640	4,687,276
Fireplaces	103,500	98,571
Total	5,025,140	**4,785,848**

Note: CalEEmod provides pollutant emissions associated fireplaces, but does not include natural gas usage in output files. The Project would include 6 fire pits for outdoor amenities. Fire pits are assumed to operate 115 days per year (i.e., colder days), and five hours per day.

Energy by Land Use - Electricity (Mitigated)

Land Uses	*kWH/yr*
Total	**1,675,286**

Note: Reduction in electricity usage reflects implementation of CalGreen and GHG-PDF-1 (Exceed baseline requirements for lighting by 25%). Reduction in natural gas usage reflects implementation of GHG-PDF-2 (Reduction in natural gas fireplaces).

Water Detail (Unmitigated)

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
Total	15.72	8.98	262,013

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr ofelectricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod). The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20 percent reduction in baseline water use.