

Construction Fuel

	MTCO ₂ e	Gallons of Fuel ⁴	Current County Fuel	Percent
On-Site Diesel¹				
Demolition	75	7,389		
Site Preparation/Grading	159	15,665		
Building Construction	76	7,488		
Paving	36	3,547		
Architectural Coating	8	788		
Total	354	34,877	101253089	0.0344%
Off-Site Diesel¹				
Demolition	7	690		
Site Preparation/Grading	24	2,365		
Building Construction	21	2,069		
Paving	0	0		
Architectural Coating	0	0		
Total	52	5,123	101253089	0.0051%
Off-Site Gasoline²				
Demolition	2	227		
Site Preparation/Grading	6	681		
Building Construction	14	1,589		
Paving	3	341		
Architectural Coating	3	341		
Total	28	3,178	610,142,526	0.0005%
Total Diesel Fuel		40,000	101,253,089	0.0395%
Total Gasoline Fuel		3,178	610,142,526	0.0005%
Total Construction Fuel	434	43,178		

Construction Phase ³	Demolition			Site Preparation			Grading		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)
2021	75	7	2	74	24	3	85	0	3
Total	75	7	2	74	24	3	85	0	3
Construction Phase ³	Building Construction			Paving			Architectural Coating		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)
2021	76	21	14	36	0	3	8	0	3
Total	76	21	14	36	0	3	8	0	3

Notes:

¹ Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

² Fuel used for worker trips assumed to be gasoline.

³ MTCO₂e rates from CalEEMod (3.0 Construction Details).

⁴ For CO₂e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

Operational Fuel

Vehicle Type	Percent ¹	Annual VMT ²	MGP ³	Annual Fuel	Fuel Type	County Gallons ⁴	County Percent	Statewide	Statewide percent
Passenger Cars	0.5000	904,276	21.6	41,865	Gas	610,142,526	0.0069%	15,589,042,965	0.0003%
Light/Medium Trucks	0.22886	413,912	17.2	24,065	Diesel	101,253,089	0.0030%	3,107,823,655	0.0008%
Heavy Trucks/Other	0	490,365	6.1	80,388	Diesel	101,253,089	0.0099%		
Total	1.000	1,808,552		104,452		812,648,704	0.1032%		

Land Use ¹	LDA	LDT1	LDT2	MCY	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	SBUS	MH
General Office	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Warehouse	0	0	0	0	0	0	0.131008	0.326719	0.542274	0	0	0	0.00000
	0.50	0.00	0.00	0.00	0.00	0.00	0.07	0.16	0.27	0.00	0.00	0.00	0.00

Notes:

¹ Percent of vehicle trip distribution based on fleet mix from CalEEMod (4.4 Fleet Mix).

² Total annual operational VMT based on mitigated annual VMT from CalEEMod (4.2 Trip Summary Information).

³ Average fuel economy derived from Department of Transportation.

⁴ Total annual county fuel per EMFAC 2017 model of projected operational fuel usage.

Electricity and Natural Gas

	Mitigated Project Annual Energy	County Annual Energy ³	Percentage Increase
Electricity (kWh/yr)	736,615	16708080341	0.0044%
Electricity (MWh/yr)	737	16708080.34	0.0044%
Electricity (GWh/yr)	0.7366153	16708.08034	0.0044%
Adjusted Electricity (GWh/yr)	1.893000415	16708.08034	0.0113%
Natural Gas (million therms)		440.030822	
Natural Gas (kBTU/yr)	386,426	44003082200	0.0009%
Natural Gas (therms)	5,488.64	440,030,822	0.0012%
Adjusted Natural Gas (therms)	14,105.05	440,030,822	0.0032%

Land Use	Electricity ¹ (kWh/yr)		Natural Gas ² (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
General Office	241989	217111	222174	155766
Parking Lot	137069	137069	0	0
Unenclosed parking structure	59134.3	59134.3	0	0
Warehouse	332,339	323,301	326,690	230,660
Total Energy	770,531	736,615	548,864	386,426

Notes:

¹ Electricity use per CalEEMod (5.3 Energy by Land Use).

² Natural Gas use per CalEEMod (5.2 Natural Gas by Land Use).

³ County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov.

Construction Water

Daily Soil Disturbance ¹	32.5	acres
Days of Soil Disturbance ²	88	days
Water Concentration ³	3,020	gallons/acre
Water Energy Intensity ⁴	3,500	kWh/MG
Total Construction Water	8.64	million gallons
Construction Water Energy	30,230	kWh
	0.0302	GWh
Percentage Increase Countywide	0.000181%	

Notes:

- ¹ Total daily acres disturbed from offroad equipment per CalEEMod (3.0 Construction Detail) and maximum SCAQMD LST values for soil-disturbing equipment.
- ² Number of days of construction with soil-disturbing equipment per CalEEMod (3.0 Construction Detail).
- ³ Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual.
- ⁴ Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

Operational Water

Mitigated Indoor	19.34728	million gallons	
Indoor Energy Intensity Factor ¹	5,411	kWh/MG	
Mitigated Outdoor	2.99913	million gallons	
Outdoor Energy Intensity Factor ²	3,500	kWh/MG	
Operational Water Energy	115185.0871	kWh	
Operational Water Energy	0.115185087	GWh	115.185087
Adjusted Operational Water Energy	0.296009895	GWh	296.009895
Total water use	22.34641	million gallons	

Land Use ³	Unmitigated (MG)		Mitigated (MG)	
	Indoor	Outdoor	Indoor	Outdoor
City Park	0	2	0	2
General Office	2	1	2	1
Parking Lot	0	0	0	0
Unenclosed Parking Structure	0	0	0	0
Warehouse	22	0	17	0
Total Operational Water	24	3	19	3

Notes:

- ¹ Indoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply, treatment, distribution, and wastewater.
- ² Outdoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply, treatment, and distribution.
- ³ Operational water use values per CalEEMod (7.2 Water by Land Use).