

Construction Fuel

On-Site Diesel ¹	MTCO ₂ e	Gallons of Fuel ⁴	2022 County Fuel	Percent Increase Countywide
Demolition	0	0		
Site Preparation/Grading	175	17,241		
Building Construction	193	19,015		
Paving	20	1,970		
Architectural Coating	11	1,084		
Total	399	39,310	48,288,859.00	0.0814%
Off-Site Diesel¹				
Demolition	0	0		
Site Preparation/Grading	59	5,813		
Building Construction	505	49,754		
Paving	0	0		
Architectural Coating	0	0		
Total	564	55,567	48,288,859.00	0.1151%
Off-Site Gasoline²				
Demolition	0	0		
Site Preparation/Grading	5	568		
Building Construction	406	46,084		
Paving	1	114		
Architectural Coating	43	4,881		
Total	455	51,646	103,228,075	0.0500%
Total Diesel Fuel		94,877	48,288,859	0.1965%
Total Gasoline Fuel		51,646	103,228,075	0.0500%
Total Construction Fuel	1,418	146,523		

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)
2022	0	0	0	51	0	2	124	59	3
2023									
Total	0	0	0	51	0	2	124	59	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)
2022	192	502	404	20	0	1	8	0	32
2023	1	3	2				3	0	11
Total	193	505	406	20	0	1	11	0	43

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	0.5920	6105325.6	21.6	282,654	Gas	101,784,474	0.2777%	14,773,931,520	0.0019%
Light/Medium Trucks	0.15000	1,546,958	17.2	89,939	Diesel	47,983,563	0.0455%	3,625,305,260	0.0025%
Heavy Trucks/Other	0.26	2,660,767	6.1	436,191	Diesel	47,983,563	0.2206%		
Total	1.000	10,313,050		526,131		197,751,600	1.0965%		

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)	213,290	1,579,283,868	0.0135%
Electricity (MWh/yr)	213	1,579,284	0.0135%
Electricity (GWh/yr)	0.21	1,579	0.0135%
Natural Gas (kBTU/yr)	4,494,690	3,418,301,900.00	0.1315%
Natural Gas (therms)	44,947	34,183,019.00	0.1315%

Land Use	Electricity ¹ (kWh/yr)		Natural Gas ² (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
City Park	0	0	0.00E+00	0.00E+00
Parking Lot	213290	213290	0	0
Warehouse	2.32891e+006	2.32891e+006	4.49E+06	4.49E+06
Total Energy	213,290	213,290	4,494,690	4,494,690

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	8	acres
Days of Soil Disturbance ²	13	days
Water Concentration ³	3,020	gallons/acre
Water Energy Intensity ⁴	3,500	kWh/MG
Total Construction Water	0.31	million gallons
Construction Water Energy	1,099	kWh
	0.0110	GWh
Percentage Increase Countywide	0.000696%	

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	5	million gallons
Indoor Energy Intensity Factor ¹	5,411	kWh/MG
Mitigated Outdoor	0	million gallons
Outdoor Energy Intensity Factor ²	3,500	kWh/MG
Operational Water Energy	27055	kWh
Operational Water Energy	27.055	MWh
Operational Water Energy	0.027055	GWh
Percentage Countywide	0.0017%	
Total water use	5	million gallons

Land Use ³	Unmitigated (MG)		Mitigated (MG)	
	Indoor	Outdoor	Indoor	Outdoor
Parking Lot	0	0	0	0
Warehouse	5	0	5	0
Total Operational Water	5	0	5	0

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).