

Construction Fuel Consumption

On-Site Diesel ¹ (off-road construction Equipment)	MTCO ₂ e	Gallons of Fuel ⁴	County Fuel in 2024 (Start of Construction)	Percent
Demolition	103	10,148		
Site Preparation/Grading	401	39,507		
Building Construction	236	23,251		
Paving	108	10,640		
Architectural Coating	10	985		
Total	858	84,532	255,242,085	0.0331%

Off-Site Diesel ¹ (on-road construction trips)	MTCO ₂ e	Gallons of Fuel ⁴	County Fuel in 2024 (Start of Construction)	Percent
Demolition	40	3,941		
Site Preparation/Grading	21	2,069		
Building Construction	13	1,281		
Paving	0	0		
Architectural Coating	0	0		
Total	74	7,291	255,242,085	0.0029%

Off-Site Gasoline ²	MTCO ₂ e	Gallons of Fuel ⁴	County Fuel in 2024 (Start of Construction)	Percent
Demolition	4	454		
Site Preparation/Grading	13	1,476		
Building Construction	7	795		
Paving	14	1,589		
Architectural Coating	1	114		
Total	39	4,427	83,341,718	0.0053%

Total Diesel Fuel		91,823	255,242,085	0.0360%
Total Gasoline Fuel		4,427	83,341,718	0.0053%
Total Construction Fuel	971	96,249		

Construction Phase ³	Demolition			Site Preparation			Grading/Infrastructure Improvements		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	103	40	4	313	0	9	88	21	4
2026	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0
Total	103	40	4	313	0	9	88	21	4

Construction Phase ³	Building Construction			Paving			Architectural Coating		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2025	0	0	0	0	0	0	0	0	0
2026	236	13	7	54	0	7	8	0	1
2027	0	0	0	54	0	7	2	0	0
Total	236	13	7	108	0	14	10	0	1

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 Emissions Details).

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

Construction Water Energy

Daily Soil Disturbance ¹	3.1	acres
Days of Soil Disturbance ²	195	days
Water Concentration ³	3,020	gallons/acre
Water Energy Intensity ⁴	1,741	kWh/MG
Total Construction Water	1.83	million gallons
Construction Water Energy	3,178	kWh
	0.0032	GWh
San Joaquin County Annual Electricity (2022)	5,771	GWh
Percentage Increase	0.00006%	

Notes:

- ¹ Total daily acres disturbed from offroad equipment per CalEEMod (3.0 Construction Emissions Detail) and maximum SCAQMD LST values for soil-disturbing equipment.
- ² Number of days of construction with soil-disturbing equipment per CalEEMod (5.1 Construction Schedule).
- ³ Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual.
- ⁴ Water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32.

Operational Fuel

Vehicle Type	Percent	Annual VMT ¹	MPG ²	Annual Fuel (Gallons)	Fuel Type	SJ County Gallons ³	RS Percent
Passenger Cars	0.93	682,502	21.6	31,597	Gas	255,242,085	0.0124%
Light/Medium Trucks	0.06	41,527	17.2	2,414	Diesel	83,341,718	0.0029%
Heavy Trucks/Other	0.02	13,433	6.1	2,202	Diesel	83,341,718	0.0026%
Trucks Total		0		4,617		83,341,718	0.0055%
Total	1.00	737,462					

Land Use ⁵	LDA	LDT1	LDT2	MCY	MDV	LHD1	LHD2	MHD	OBUS	UBUS	SBUS	MH	HHD
Hospital	49.2286	3.6412	20.6157	2.1337	16.9281	3.1066	0.7490	1.2312	0.0462	0.0389	0.1314	0.3278	1.8215
Parking Lot	49.2286	3.6412	20.6157	2.1337	16.9281	3.1066	0.7490	1.2312	0.0462	0.0389	0.1314	0.3278	1.8215

Notes:

¹ Total annual operational VMT based on annual VMT from CalEEMod (5.9 Operational Mobile Sources).

² Average fuel economy derived from Department of Transportation.

³ Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.

Operational Water Energy

UNMITIGATED		
Unmitigated Indoor	3.4	million gallons
Indoor Energy Intensity Factor ¹	3,260	kWh/MG
Unmitigated Outdoor	1	million gallons
Outdoor Energy Intensity Factor ²	1,741	kWh/MG
Operational Water Energy	12,125	kWh
Operational Water Energy	0.0121	GWh
San Joaquin County Annual Electricity	5,771	GWh
Percentage Increase	0.0002%	
MITIGATED		
Mitigated Indoor	0.0	million gallons
Indoor Energy Intensity Factor ¹	6,807	kWh/MG
Mitigated Outdoor	0	million gallons
Outdoor Energy Intensity Factor ²	1,741	kWh/MG
Operational Water Energy	0	kWh
Operational Water Energy	0.0000	GWh
San Bernardino County Annual Electricity	16,181	GWh
Percentage Increase	0.0000%	

Land Use ³	Unmitigated (gal/year)		Mitigated (gal/year)	
	Indoor	Outdoor	Indoor	Outdoor
Hospital	3,444,441	514,716	0	0
Parking Lot	0	0	0	0
Total Operational Water (MG/year)	3	1	0	0

Notes:

- ¹ Indoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, distribution, and wastewater.
- ² Outdoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, and distribution.
- ³ Operational water use values per CalEEMod (5.12 Operational Water and Wastewater Consumption).

Electricity/Natural Gas Energy

UNMITIGATED			
	Unmitigated Project Annual Energy	San Joaquin County Annual Energy ³	Percentage Increase
Electricity (kWh/yr)	1,153,149	5,771,000,000	0.0200%
Electricity (GWh/yr)	1.2	5,771	0.0200%

Land Use	Electricity ¹ (kWh/yr)	
	Unmitigated	Mitigated
Hospital	1,091,027	0
Parking Lot	62,122	0
Total Energy	1,153,149	0

Notes:

¹ Electricity use per CalEEMod (5.11 Operational Energy Consumption).

² Natural Gas use per CalEEMod (5.11 Operational Energy Consumption).

³ County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov. (year 2022)