

**Appendix E:
Energy Supporting Information**

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Appendix E: Energy

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Sunnyvale FCII Project Energy Use Summary

Summary of Energy Use During Construction

(Annually)

Construction vehicle fuel	155,123 gallons (gasoline, diesel)
Construction equipment fuel	446,864 gallons (diesel)
Total construction fuel	601,987 gallons (gasoline, diesel)
Construction office electricity	21,562 kilowatt hours

Summary of Energy Use During Operations

(Annually)

Operation vehicle fuel	805,478 gallons (gasoline, diesel)
Operation natural gas	21,072,650 kilo-British Thermal Units
Operation electricity	16,056,160 kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2021. EMFAC2021 Web Database. Website: <https://www.arb.ca.gov/emfac/emissions-inventory>. Accessed January 29, 2021.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Source: EMFAC2021 (v1.0.0) Emissions Inventory

Region Type: County

Region: San Joaquin

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gallons/day)	Calculations	
										FE (mi/gallon)	VMT*FE
San Joaquin	2023	HHDT	Aggregate	Aggregate	Gasoline	2.419215607	60.00819344	48.40366587	0.018776	3.195967	191.7842241
San Joaquin	2023	HHDT	Aggregate	Aggregate	Diesel	8575.081903	1199316.402	140104.4472	202.5049	5.922406	7102838.446
San Joaquin	2023	LDA	Aggregate	Aggregate	Gasoline	246367.0682	9973102.473	1138235.391	349.3217	28.54991	284731191.7
San Joaquin	2023	LDA	Aggregate	Aggregate	Diesel	705.734891	23139.82538	3023.214022	0.543998	42.53664	984290.3244
San Joaquin	2023	LDT1	Aggregate	Aggregate	Gasoline	22016.87719	727225.7141	95173.38769	30.52487	23.82404	17325456.45
San Joaquin	2023	LDT1	Aggregate	Aggregate	Diesel	6.309776167	72.3140659	18.53577151	0.002954	24.47922	1770.191642
San Joaquin	2023	LDT2	Aggregate	Aggregate	Gasoline	99986.64004	4006976.314	463638.6569	174.3583	22.98127	92085412.87
San Joaquin	2023	LDT2	Aggregate	Aggregate	Diesel	269.0353638	11767.77307	1277.639106	0.369318	31.86353	374962.8215
San Joaquin	2023	LHDT1	Aggregate	Aggregate	Gasoline	9831.305478	343356.5628	146471.803	37.01205	9.276885	3185279.263
San Joaquin	2023	LHDT1	Aggregate	Aggregate	Diesel	8858.793592	311287.7804	111432.479	19.67474	15.8217	4925101.244
San Joaquin	2023	LHDT2	Aggregate	Aggregate	Gasoline	1172.202392	40932.81227	17464.06906	4.908116	8.339823	341372.3902
San Joaquin	2023	LHDT2	Aggregate	Aggregate	Diesel	3130.564849	115648.0857	39378.56755	8.863266	13.04802	1508978.717
San Joaquin	2023	MHDT	Aggregate	Aggregate	Gasoline	560.525111	27400.6685	11214.98642	5.873759	4.664929	127822.1807
San Joaquin	2023	MHDT	Aggregate	Aggregate	Diesel	5658.128852	270692.8725	68765.67965	31.40958	8.618162	2332875.041
Worker											
										Sum of VMT*FE (Column BI)	395503084.4
										Total VMT	14742284.41
										Weighted Average FE	26.8278018
Vendor											
										Sum of VMT*FE (Column BI)	19524459.07
										Total VMT	2308695.192
										Weighted Average FE	8.456923691
Haul											
										Sum of VMT*FE (Column BI)	7103030.23
										Total VMT	1199376.41
										Weighted Average FE	5.922269416

Tracy Alliance Project Construction Assumptions - Phase 1

On-site Construction

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 1 (Tracy Alliance Parcel) - Unmitigated Construction Only - San Joaquin County, Annual

Time stamp: Date: 1/28/2021 8:45 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days		Total VMT	Weighted Average FE
					Week	Num Days		
Demolition	Demolition	Demolition	4/1/2022	4/28/2022	5	20	1199376.41	5.922269416
Site Preparation	Site Preparation	Site Preparation	4/29/2022	7/7/2022	5	50		
Grading	Grading	Grading	7/8/2022	12/29/2022	5	125		
Building Construction	Building Construction	Building Construction	9/1/2022	2/1/2023	5	110		
Paving	Paving	Paving	2/2/2023	3/1/2023	5	20		
Architectural Coating	Architectural Coating	Architectural Coating	3/2/2023	3/29/2023	5	20		

Trips and VMT	Phase Name	Trips per Day			Total Trips			Trips per Phase				VMT per Phase			Fuel Consumption (gallons)			
		Worker Trip Number			Hauling Trip Length			Vendor Trip		Hauling Trip		Vendor		Hauling	Worker		Vendor	Hauling
		Number	Number	Length	Number	Length	Length	Class	Hauling Vehicle Class	Num Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Trips	Trips
Demolition		15	0	133	10.8	7.3	20 HDT_Mix	HHDT	20	300	133	3,240	0	2,660	120.77	0.00	22.46	
Site Preparation		18	0	0	10.8	7.3	20 HDT_Mix	HHDT	50	900	0	9,720	0	0	362.31	0.00	0.00	
Grading		40	0	0	10.8	7.3	20 HDT_Mix	HHDT	125	5,000	0	54,000	0	0	2,012.84	0.00	0.00	
Building Construction		1094	429	0	10.8	7.3	20 HDT_Mix	HHDT	110	120,340	47,190	1,299,672	344,487	0	48,444.97	40,734.32	0.00	
Paving		90	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	1,800	0	19,440	0	0	724.62	0.00	0.00	
Architectural Coating		219	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	4,380	0	47,304	0	0	1,763.25	0.00	0.00	

Total Construction VMT (miles) - Phase 1
1,780,523

On-Site Total Fuel Consumption (gallons) - Phase 1
94,186

Tracy Alliance Project Construction Assumptions - Phase 2

On-site Construction

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated Construction Only - San Joaquin County, Annual

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Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
Site Preparation	Site Preparation		4/3/2023	6/9/2023	5	50
Grading	Grading		6/10/2023	12/29/2023	5	145
Building Construction	Building Construction		9/1/2023	2/1/2024	5	110
Paving	Paving		2/2/2024	2/29/2024	5	20
Architectural Coating	Architectural Coating		3/1/2024	3/28/2024	5	20

Trips and VMT	Phase Name	Trips per Day		Total Trips			Trips per Phase			VMT per Phase			Fuel Consumption (gallons)					
		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Vendor Vehicle Class	Hauling Vehicle Class	Num Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips
	Site Preparation	18	0	0	10.8	7.3	20 HDT_Mix	HHDT	50	900	0	0	9,720	0	0	362.31	0.00	0.00
	Grading	20	0	0	10.8	7.3	20 HDT_Mix	HHDT	145	2,900	0	0	31,320	0	0	1,167.45	0.00	0.00
	Building Construction	476	186	0	10.8	7.3	20 HDT_Mix	HHDT	110	52,360	20,460	0	565,488	149,358	0	21,078.43	17,661.03	0.00
	Paving	30	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	600	0	0	6,480	0	0	241.54	0.00	0.00
	Architectural Coating	95	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	1,900	0	0	20,520	0	0	764.88	0.00	0.00

Total Construction VMT (miles) - Phase 2

782,886

On-Site Total Fuel Consumption (gallons) - Phase 2

41,276

Tracy Alliance Project Construction Assumptions - Phase 3

On-site Construction

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated 2025 Operation Only - San Joaquin County, Annual

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Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
Site Preparation	Site Preparation		4/1/2024	6/7/2024	5	50
Grading	Grading		6/8/2024	12/27/2024	5	145
Building Construction	Building Construction		12/28/2024	1/31/2025	5	110
Paving	Paving		2/3/2025	2/28/2025	5	20
Architectural Coating	Architectural Coating		3/3/2025	3/28/2025	5	20

Trips and VMT	Phase Name	Trips per Day		Total Trips			Trips per Phase			VMT per Phase			Fuel Consumption (gallons)					
		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Vendor Vehicle Class	Hauling Vehicle Class	Num Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips
	Site Preparation	5	0	0	10.8	7.3	20 HDT_Mix	HHDT	50	250	0	0	2,700	0	0	100.64	0.00	0.00
	Grading	13	0	0	10.8	7.3	20 HDT_Mix	HHDT	145	1,885	0	0	20,358	0	0	758.84	0.00	0.00
	Building Construction	225	88	0	10.8	7.3	20 HDT_Mix	HHDT	110	24,750	9,680	0	267,300	70,664	0	9,963.54	8,355.76	0.00
	Paving	15	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	300	0	0	3,240	0	0	120.77	0.00	0.00
	Architectural Coating	45	0	0	10.8	7.3	20 HDT_Mix	HHDT	20	900	0	0	9,720	0	0	362.31	0.00	0.00

Total Construction VMT (miles) - Phase 3

373,982

Total VMT - all phases 2,937,391

On-Site Total Fuel Consumption (gallons) - Phase 3

19,662

Construction Equipment Fuel Calculation - Phase 1

On-site

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 1 (Tracy Alliance Parcel) - Unmitigated Construction Only - San Joaquin County, Annual

Time stamp: Date: 1/28/2021 8:45 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
	Demolition	Demolition	4/1/2022	4/28/2022	5	20
	Site Preparation	Site Preparation	4/29/2022	7/7/2022	5	50
	Grading	Grading	7/8/2022	12/29/2022	5	125
	Building Construction	Building Construction	9/1/2022	2/1/2023	5	110
	Paving	Paving	2/2/2023	3/1/2023	5	20
	Architectural Coating	Architectural Coating	3/2/2023	3/29/2023	5	20

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load		HP Hours	Diesel Fuel Usage
						Factor	Number of Days		
	Demolition	Concrete/Industrial Saws	1	8	81	0.73	20	9,460.80	473.04
	Demolition	Excavators	3	8	158	0.38	20	28,819.20	1,440.96
	Demolition	Rubber Tired Dozers	2	8	247	0.4	20	31,616.00	1,580.80
	Site Preparation	Rubber Tired Dozers	3	12.8	247	0.4	50	189,696.00	9,484.80
	Site Preparation	Tractors/Loaders/Backhoes	4	12.8	97	0.37	50	91,878.40	4,593.92
	Grading	Excavators	4	5.8	158	0.38	125	174,116.00	8,705.80
	Grading	Graders	2	5.8	187	0.41	125	111,171.50	5,558.58
	Grading	Rubber Tired Dozers	2	5.8	247	0.4	125	143,260.00	7,163.00
	Grading	Scrapers	4	5.8	367	0.48	125	510,864.00	25,543.20
	Grading	Tractors/Loaders/Backhoes	4	5.8	97	0.37	125	104,081.00	5,204.05
	Building Construction	Cranes	12	9.3	231	0.29	110	822,369.24	41,118.46
	Building Construction	Forklifts	32	12	89	0.2	110	751,872.00	37,593.60
	Building Construction	Generator Sets	12	10.7	84	0.74	110	877,947.84	43,897.39
	Building Construction	Tractors/Loaders/Backhoes	32	10.5	97	0.37	110	1,326,494.40	66,324.72
	Building Construction	Welders	12	10.7	46	0.45	110	292,366.80	14,618.34
	Paving	Pavers	12	9.3	130	0.42	20	121,867.20	6,093.36
	Paving	Paving Equipment	12	9.3	132	0.36	20	106,064.64	5,303.23
	Paving	Rollers	12	9.3	80	0.38	20	67,852.80	3,392.64
	Architectural Coating	Air Compressors	8	5.3	78	0.48	20	31,749.12	1,587.46
Construction Equipment Fuel Consumption									286,182.55 gallons

Construction Equipment Fuel Calculation - Phase 2

On-site

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 2 (Suvik Farms Parcel) - Unmitigated Construction Only - San Joaquin County, Annual

Time stamp: Date: 1/28/2021 8:49 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
	Site Preparation	Site Preparation	4/3/2023	6/9/2023	5	50
	Grading	Grading	6/10/2023	12/29/2023	5	145
	Building Construction	Building Construction	9/1/2023	2/1/2024	5	110
	Paving	Paving	2/2/2024	2/29/2024	5	20
	Architectural Coating	Architectural Coating	3/1/2024	3/28/2024	5	20

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load		HP Hours	Diesel Fuel Usage
						Factor	Number of Days		
	Site Preparation	Rubber Tired Dozers	3	3.2	247	0.4	50	47,424.00	2,371.20
	Site Preparation	Tractors/Loaders/Backhoes	4	3.2	97	0.37	50	22,969.60	1,148.48
	Grading	Excavators	2	3.9	158	0.38	145	67,905.24	3,395.26
	Grading	Graders	1	3.9	187	0.41	145	43,356.89	2,167.84
	Grading	Rubber Tired Dozers	1	3.9	247	0.4	145	55,871.40	2,793.57
	Grading	Scrapers	2	3.9	367	0.48	145	199,236.96	9,961.85
	Grading	Tractors/Loaders/Backhoes	2	3.9	97	0.37	145	40,591.59	2,029.58
	Building Construction	Cranes	5	9.4	231	0.29	110	346,338.30	17,316.92
	Building Construction	Forklifts	15	10.8	89	0.2	110	317,196.00	15,859.80
	Building Construction	Generator Sets	5	10.8	84	0.74	110	369,230.40	18,461.52
	Building Construction	Tractors/Loaders/Backhoes	15	9.4	97	0.37	110	556,653.90	27,832.70
	Building Construction	Welders	5	10.8	46	0.45	110	122,958.00	6,147.90
	Paving	Pavers	4	8	130	0.42	20	34,944.00	1,747.20
	Paving	Paving Equipment	4	8	132	0.36	20	30,412.80	1,520.64
	Paving	Rollers	4	8	80	0.38	20	19,456.00	972.80
	Architectural Coating	Air Compressors	2	6	78	0.48	20	8,985.60	449.28
Construction Equipment Fuel Consumption									107,261.59 gallons

Construction Equipment Fuel Calculation - Phase 3

On-site

Source: AQ/GHG Appendix, CalEEMod Output

CalEEMod output file: Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated Construction Only - San Joaquin County, Annual

Time stamp: Date: 1/28/2021 8:53 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
	Site Preparation	Site Preparation	4/1/2024	6/7/2024	5	50
	Grading	Grading	6/8/2024	12/27/2024	5	145
	Building Construction	Building Construction	12/28/2024	1/31/2025	5	110
	Paving	Paving	2/3/2025	2/28/2025	5	20
	Architectural Coating	Architectural Coating	3/3/2025	3/28/2025	5	20

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load		HP Hours	Diesel Fuel Usage
						Factor	Number of Days		
	Site Preparation	Rubber Tired Dozers	1	4.8	247	0.4	50	23,712.00	1,185.60
	Site Preparation	Tractors/Loaders/Backhoes	1	6.4	97	0.37	50	11,484.80	574.24
	Grading	Excavators	1	3.9	158	0.38	145	33,952.62	1,697.63
	Grading	Graders	1	1.9	187	0.41	145	21,122.59	1,056.13
	Grading	Rubber Tired Dozers	1	1.9	247	0.4	145	27,219.40	1,360.97
	Grading	Scrapers	1	3.9	367	0.48	145	99,618.48	4,980.92
	Grading	Tractors/Loaders/Backhoes	1	3.9	97	0.37	145	20,295.80	1,014.79
	Building Construction	Cranes	3	7.8	231	0.29	110	172,432.26	8,621.61
	Building Construction	Forklifts	9	9	89	0.2	110	158,598.00	7,929.90
	Building Construction	Generator Sets	4	6.7	84	0.74	110	183,247.68	9,162.38
	Building Construction	Tractors/Loaders/Backhoes	8	8.8	97	0.37	110	277,932.16	13,896.61
	Building Construction	Welders	4	6.7	46	0.45	110	61,023.60	3,051.18
	Paving	Pavers	2	8	130	0.42	20	17,472.00	873.60
	Paving	Paving Equipment	2	8	132	0.36	20	15,206.40	760.32
	Paving	Rollers	2	8	80	0.38	20	9,728.00	486.40
	Architectural Coating	Air Compressors	1	6	78	0.48	20	4,492.80	224.64
Construction Equipment Fuel Consumption									53,419.46 gallons

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

South Coast Air Quality Management District. 1993. Air Quality Handbook, Table A9-3E.

Website: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>. Accessed October 30, 2020.

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer
 Typical Construction Trailer - San Joaquin County, Annual
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5.3 Energy by Land Use - Electricity

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	7207.2	0.6865	9.0000e-005	2.0000e-005	0.6947
Total		0.6865	9.0000e-005	2.0000e-005	0.6947

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual

7,207 kWh/yr

Total Over Construction

21,562 kWh

Total Construction Schedule

Start

4/1/2022

End

3/28/2025

Total Calendar Days

1092

Years

2.99

Proposed Operation Fuel Calculation

California Air Resource Board (ARB). 2021. EMFAC2021 Web Database. Website: <https://www.arb.ca.gov/emfac/emissions-inventory>. Accessed January 29, 2021.

Source: EMFAC2021 (v1.0.0) Emissions Inventory

VMT = Vehicle Miles Traveled

Region Type: County

FE = Fuel Economy

Region: San Joaquin

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Given

Calculations

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
San Joaquin	2023	HHDT	Aggregate	Aggregate	Gasoline	2,419,215.61	60,008,193.4	0.018776223	3.195967	191,784,224.1
San Joaquin	2023	HHDT	Aggregate	Aggregate	Diesel	8575.0819	119,931.64	202.5049341	5.922406	710,283.446
San Joaquin	2023	LDA	Aggregate	Aggregate	Gasoline	246,367.068	997,310.247	349.3216614	28.54991	284,731,191.7
San Joaquin	2023	LDA	Aggregate	Aggregate	Diesel	705.734891	231,39.8254	0.543997543	42.53664	984,290.3244
San Joaquin	2023	LDT1	Aggregate	Aggregate	Gasoline	22,016.8772	72,725.714	30.52486616	23.82404	1,732,546.45
San Joaquin	2023	LDT1	Aggregate	Aggregate	Diesel	6,309,776.17	72,314,065.9	0.002954101	24.47922	1,770,191.642
San Joaquin	2023	LDT2	Aggregate	Aggregate	Gasoline	99,986.64	400,697.31	174.3583341	22.98127	920,854.127
San Joaquin	2023	LDT2	Aggregate	Aggregate	Diesel	269,035.364	1,176,773.1	0.369317903	31.86353	3,749,62.8215
San Joaquin	2023	LHDT1	Aggregate	Aggregate	Gasoline	9831.30548	343,356.563	37.01205435	9.276885	3,185,279.263
San Joaquin	2023	LHDT1	Aggregate	Aggregate	Diesel	8858.79359	31,128.78	19.67473914	15.8217	492,510.244
San Joaquin	2023	LHDT2	Aggregate	Aggregate	Gasoline	117,202.39	409,32.8123	4.908115503	8.339823	341,372.3902
San Joaquin	2023	LHDT2	Aggregate	Aggregate	Diesel	3130.56485	115,648.086	8.863265985	13.04802	1,508,978.717
San Joaquin	2023	MCY	Aggregate	Aggregate	Gasoline	12,111.7743	65,765.9483	1.670595195	39.36678	258,893.412
San Joaquin	2023	MDV	Aggregate	Aggregate	Gasoline	945,39.4724	330,964.73	178.486066	18.5429	613,705.155
San Joaquin	2023	MDV	Aggregate	Aggregate	Diesel	1386.64968	54,072.4946	2.262770858	23.84916	128,953.317
San Joaquin	2023	MH	Aggregate	Aggregate	Gasoline	1507.49484	13,134.1796	2.977418428	4.411264	57,938.33754
San Joaquin	2023	MH	Aggregate	Aggregate	Diesel	642.796191	5,646.6428	0.600452961	9.403972	51,100.87051
San Joaquin	2023	MHDT	Aggregate	Aggregate	Gasoline	560.525111	27,400.6685	5.873758607	4.664929	12,782.1807
San Joaquin	2023	MHDT	Aggregate	Aggregate	Diesel	5658.12885	27,069.873	31.40958258	8.618162	233,287.041
San Joaquin	2023	OBUS	Aggregate	Aggregate	Gasoline	184.218644	8,143.5346	1.733278965	4.69834	38,261.09769
San Joaquin	2023	OBUS	Aggregate	Aggregate	Diesel	80.8953007	5,887.41513	0.846776196	6.95274	40,933.6695
San Joaquin	2023	SBUS	Aggregate	Aggregate	Gasoline	127.665845	701.40481	0.69096273	10.1473	7,114.81481
San Joaquin	2023	SBUS	Aggregate	Aggregate	Diesel	488.066152	10,999.7571	1.346353931	8.170034	89,686.3866
San Joaquin	2023	UBUS	Aggregate	Aggregate	Gasoline	49.369827	371.95506	0.791708132	4.698139	1,747.498767
San Joaquin	2023	UBUS	Aggregate	Aggregate	Diesel	78.3387238	5427.523	0.602229329	9.012386	48,914.93074

Vehicles	
Sum of VMT*FE	480694271.8
Total VMT	20540437.79
Weighted Average FE	23.40233819 miles/gallon

Total VMT - Phase 1

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 1 (Tracy Alliance Parcel) - Unmitigated 2023 Operations - San Joaquin County, Annual

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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
User Defined Commercial	1,775.00	1,775.00	1,775.00	7,351,972	7,351,972
User Defined Industrial	836.00	836.00	836.00	3,482,875	3,482,875
Total	2,611.00	2,611.00	2,611.00	10,834,847	10,834,847

Total VMT - Phase 2

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 2 (Suviik Farms Parcel) - Unmitigated 2024 Operation Only - San Joaquin County, Annual

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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
User Defined Commercial	974.00	974.00	974.00	4,034,265	4,034,265
User Defined Industrial	459.00	459.00	459.00	1,901,158	1,901,158
Total	1,433.00	1,433.00	1,433.00	5,935,423	5,935,423

Total VMT - Phase 3

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated 2025 Operation Only - San Joaquin County, Annual

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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
User Defined Commercial	456.00	456.00	456.00	1,427,130	1,427,130
User Defined Industrial	215.00	215.00	215.00	672,879	672,879
Total	671.00	671.00	671.00	2,100,010	2,100,010

	Annual VMT (miles)	Fuel Consumption (gallons per year)
Total VMT	18,850,080	805,478

Operation Natural Gas Use - Phase 1

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 1 (Tracy Alliance Parcel) - Unmitigated 2023 Operations - San Joaquin County, Annual

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kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

Natural Gas Use

General Office Building
Warehouse

938220

10952200

Total - Phase 1

11,890,420 kBTU/yr

	Natural Gas Use	ROG	NOx	CO
Land Use	kBTU/yr			
General Office Building	938220	5.0600e-003	0.0460	0.0386
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Bail	1.10E+07	0.0591	0.5369	0.4510
User Defined Commercial	0	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000
Total		0.0641	0.5829	0.4896

Operation Natural Gas Use - Phase 2

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 2 (Suvik Farms Parcel) - Unmitigated 2024 Operation Only - San Joaquin County, Annual

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kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

Natural Gas Use

Warehouse

6254560

Total - Phase 2

6,254,560 kBTU/yr

	Natural Gas Use	ROG	NOx	CO
Land Use	kBTU/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Bail	6.25E+06	0.0337	0.3066	0.2575
User Defined Commercial	0	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000
Total		0.0337	0.3066	0.2575

Operation Natural Gas Use - Phase 3

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated 2025 Operation Only - San Joaquin County, Annual

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kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

Warehouse

Natural Gas Use
2927670

Total - Phase 3

2,927,670 kBTU/yr

	Natural Gas Use	ROG	NOx	CO
Land Use	kBTU/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Ball	2.93E+06	0.0158	0.1435	0.1206
User Defined Commercial	0	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000
Total		0.0158	0.1435	0.1206

Operation Electricity Use - Phase 1

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 1 (Tracy Alliance Parcel) - Unmitigated 2023 Operations - San Joaquin County, Annual

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Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
General Office Building	570570
Parking Lot	268870
Warehouse	8245500
Total - Phase 1	9,084,940 kWh/yr

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	570570	54.3493	7.5100e-003	1.5500e-003	54.9397
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	268870	25.6111	3.5400e-003	7.3000e-004	25.9175
Unrefrigerated Warehouse-No Ball	8.25E+06	785.4201	0.1085	0.0224	794.8190
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		865.3805	0.1195	0.0247	875.7362

Operation Electricity Use - Phase 2

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 2 (Suvik Farms Parcel) - Unmitigated 2024 Operation Only - San Joaquin County, Annual

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Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
Parking Lot	38640
Warehouse	4708840
Total - Phase 2	4,747,480 kWh/yr

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	38640	3.6806	5.1000e-004	1.1000e-004	3.7247
Unrefrigerated Warehouse-No Ball	4.71E+06	448.5373	0.0619	0.0128	453.9048
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		452.2180	0.0625	0.0129	457.6295

Operation Electricity Use - Phase 3

Source: AQ/GHG Appendix, CalEEMod Output

Tracy Alliance Phase 3 (Zuriakat Parcel) - Unmitigated 2025 Operation Only - San Joaquin County, Annual

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Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
Parking Lot	19600
Warehouse	2204140
Total - Phase 2	2,223,740 kWh/yr

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	19600	1.8670	2.6000e-004	5.0000e-005	1.8893
Unrefrigerated Warehouse-No Ball	2.20E+06	209.9537	0.0290	6.0000e-003	212.4661
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		211.8206	0.0293	6.0500e-003	214.3554