

Appendix D

Energy Consumption Summary

PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
Demolition	Demolition	2022/06/01	2022/06/21	5	15
Site Preparation	Site Preparation	2022/06/22	2022/06/23	5	2
Grading	Grading	2022/06/24	2022/06/29	5	4
Building Construction	Building Construction	2022/06/30	2023/01/04	5	135
Paving	Paving	2023/01/05	2023/01/18	5	10
Architectural Coating	Architectural Coating	2023/01/19	2023/01/31	5	9

Phase Name	Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	Horse Pow Fuel (gallons/HP-hour)	diesel Fuel Usage	Total
Demolition	Concrete/Industrial Saws	1	6	81	0.73	15	5,321.7	0.041989865	223.46
Demolition	Excavators	1	4	158	0.38	15	3,602.4	0.019761453	71.19
Demolition	Rubber Tired Dozers	0	8	247	0.4	15	0.0	0.02048249	0.00
Demolition	Skid Steer Loaders	1	6	65	0.37	15	2,164.5	0.019057691	41.25
Demolition	Tractors/Loaders/Backhoes	3	6	97	0.37	15	9,690.3	0.019127164	185.35
Site Preparation	Graders	1	6	187	0.41	2	920.0	0.02115725	19.47
Site Preparation	Rubber Tired Dozers	1	6	247	0.4	2	1,185.6	0.02048249	24.28
Site Preparation	Tractors/Loaders/Backhoes	1	6	97	0.37	2	430.7	0.019127164	8.24
Grading	Graders	1	6	187	0.41	4	1,840.1	0.02115725	38.93
Grading	Rubber Tired Dozers	1	6	247	0.4	4	2,371.2	0.02048249	48.57
Grading	Tractors/Loaders/Backhoes	2	6	97	0.37	4	1,722.7	0.019127164	32.95
Building Construction	Aerial Lifts	1	0.2	63	0.31	135	527.3	0.026177024	13.80
Building Construction	Cranes	1	0.2	231	0.29	135	1,808.7	0.014889117	26.93
Building Construction	Forklifts	1	6	89	0.2	135	14,418.0	0.010380794	149.67
Building Construction	Generator Sets	1	7	84	0.74	135	58,741.2	0.042332745	2,486.68
Building Construction	Tractors/Loaders/Backhoes	1	3	97	0.37	135	14,535.5	0.019127164	278.02
Building Construction	Welders	3	4	46	0.45	135	33,534.0	0.025824342	865.99
Paving	Cement and Mortar Mixers	1	6	9	0.56	10	302.4	0.031954134	9.66
Paving	Pavers	1	6	130	0.42	10	3,276.0	0.021528159	70.53
Paving	Paving Equipment	1	6	132	0.36	10	2,851.2	0.018324359	52.25
Paving	Rollers	1	6	80	0.38	10	1,824.0	0.019411734	35.41
Paving	Tractors/Loaders/Backhoes	1	6	97	0.37	10	2,153.4	0.019127164	41.19
Paving	Welders	3	4	46	0.45	10	2,484.0	0.025824342	64.15
Architectural Coating	Air Compressors	1	6	78	0.48	9	2,021.8	0.02758243	55.77

4843.721035 4843.721

Phase Name	Phase Type	Phase Start Date	Phase End Date	Num Days Week	Num Days
Demolition	Demolition	2022/06/01	2022/06/21	5	15
Site Preparation	Site Preparation	2022/06/22	2022/06/23	5	2
Grading	Grading	2022/06/24	2022/06/29	5	4
Building Construction	Building Construction	2022/06/30	2023/01/04	5	135
Paving	Paving	2023/01/05	2023/01/18	5	10
Architectural Coating	Architectural Coating	2023/01/19	2023/01/31	5	9

Phase Name	Trips per Day			Construction Trip Length (Miles)			Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption		
	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Demolition	36	0	39	10.8	7.3	22.3	15	540	0	39	5,832.00	0.00	869.70	222.54	0.00	147.13
Site Preparation	36	0	0	10.8	7.3	20	2	72	0	0	777.60	0.00	0.00	29.67	0.00	0.00
Grading	36	0	80	10.8	7.3	22.3	4	144	0	80	1,555.20	0.00	1,784.00	59.34	0.00	301.80
Building Construction	60	9	0	10.8	7.3	20	135	8100	72900	0	87,480.00	532,170.00	0.00	3,338.11	56,330.00	0.00
Paving	36	0	0	10.8	7.3	20	10	360	0	0	3,888.00	0.00	0.00	148.36	0.00	0.00
Architectural Coating	36	0	0	10.8	7.3	20	9	324	0	0	3,499.20	0.00	0.00	133.52	0.00	0.00

Total of all trips 60,710.48

Trip Summary

Land Use	Weekday	Average Daily Trip Rate		Unmitigated Annual VMT		Mitigated Annual VMT	
		Saturday	Sunday	Unmitigated	Mitigated	Unmitigated	Mitigated
Automobile Care Center		11.55	26.80	13.42	13,942.48	13,942.48	
Convenience Market with Gas Pumps		3,688.00	1,997.44	1,997.44	1,915,032.65	1,915,032.65	
Other Asphalt Surfaces		0.00	0.00	0.00	0.00	0.00	
Parking Lot		0.00	0.00	0.00	0.00	0.00	
Other Non-Asphalt Surfaces		0.00	0.00	0.00	0.00	0.00	
Total		3,699.55	2,024.24	2,010.86	1,928,975.13	1,928,975.13	

FLEET MIX

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.558086	0.056127	0.18057	0.129764	0.024304	0.00548	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
0.558086	0.366461			0.043828				0.005606		0.026017		

	Percent of Vehicle			Average Fuel Economy		
	Trips	Annual VMT	Daily VMT	(miles/gallon)	Total Annual Fuel Consumption (gallons)	Total Daily Fuel Consumption (gallons)
Passenger Cars (LDA)	55.8%	1,076,534.01	2,949.41	30.3	35,539.9	97.4
Light Trucks and Medium Vehicles (LDT1, LDT2, and MDV)	36.6%	706,894.16	1,936.70	22.6	31,314.1	85.8
Light-Heavy to Heavy-Heavy Diesel Trucks	4.4%	84,543.12	231.62	9.4	9,020.2	24.7
Motorcycles	0.6%	10,813.83	29.63	41.0	263.5	0.7
Other	2.6%	50,186.15	137.50	6.8	7,365.6	20.2
Total	100.0%	1,928,975.13	5,284.85		83,503.2	228.8

Project Operations Electricity Use

Source: CalEEMod

5200 Lone Tree Way Gas Station Project - Buildout Year Operations

Energy Use Land Use Sub Type	Land Use Size	T24E	NT24E	LightingElect			T24NG	NT24NG		
Automobile Care Center	1130	1.32	3.7	3.08	8.1	9,153	19.51	6.67	26.18	29,583.40
Convenience Market with Gas Pumps	3200	2	2.68	5.25	10.39	33,248	2.34	0	2.34	7,488.00
Other Asphalt Surfaces	41400	0	0	0	0	0	0	0	0	0
Other Non-Asphalt Surfaces	33976.8	0	0	0	0	0	0	0	0	0
Parking Lot	7600	0	0	0.35	0.35	2,660	0	0	0	0
Total						45,061				37,071