Appendix D
Energy Consumption Worksheets

D-1: Construction Energy Consumption

REGIONAL CONSTRUCTION EMISSIONS - Unmitigated

	Maximum Daily Emissions (lbs/day)									
Phase	ROG	NOx	CO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total	SOx
2022										
Demolition	1	21	10	0	3	3	0	1	1	0
2023										
Demolition	1	16	9	0	3	3	0	1	1	0
Site Preparation	0	5	5	0	1	1	0	0	0	0
Grading	1	49	14	0	11	12	0	3	4	0
Building Foundation	5	72	36	1	10	12	1	3	4	0
Building Construction	3	16	24	0	8	8	0	1	2	0
2024										
Building Construction + Architectural Coatings	12	14	25	0	8	9	0	1	2	0
2025										
Building Construction + Architectural Coatings + Asphalt Paving	11	10	21	0	9	9	0	2	2	0
Maximum:	12	72	36	1	11	12	1	3	4	0

LOCALIZED CONSTRUCTION EMISSIONS - Unmitigated

	Maximum Daily Emissions (lbs/day)									
Phase	ROG	NOx	CO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total	SOx
2022										
Demolition	1	7	7	0	1	1	0	0	0	0
2023										
Demolition	1	6	7	0	1	1	0	0	0	0
Site Preparation	0	3	3	0	0	0	0	0	0	0
Grading	1	8	6	0	3	3	0	2	2	0
Building Foundation	5	37	33	1	1	2	1	1	2	0
Building Construction	1	11	9	0	0	0	0	0	0	0
2024										
Building Construction + Architectural Coatings	11	10	9	0	0	0	0	0	0	0
2025										
Building Construction + Architectural Coatings + Asphalt Paving	10	3	5	0	0	0	0	0	0	0
Maximum:	11	37	33	1	3	3	1	2	2	0

Summary of Total Emissions

By Year Only

Year	Tons per year										Metric tons per year				
	ROG	NOX	CO	PM10 E	PM10 D	PM 10 T	PM2.5 E	PM2.5 D	PM2.5 T	SO2	CO2	CH4	N2O	CO2e	
2022	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	123.3	0.0	0.0	127.7	
2023	0.1	1.4	1.6	0.0	0.8	0.8	0.0	0.2	0.2	0.0	1,162.7	0.0	0.1	1,192.5	
2024	0.7	0.8	2.2	0.0	1.0	1.0	0.0	0.2	0.2	0.0	1,233.4	0.0	0.1	1,249.8	
2025	1.2	0.5	1.7	0.0	0.9	0.9	0.0	0.2	0.2	0.0	979.2	0.0	0.0	992.8	**30-year Amortization**
Total	2.0	3.1	5.6	0.0	2.8	2.8	0.0	0.5	0.6	0.0	3,498.6	0.1	0.2	3,562.9	119

Summary of Total Fuel Consumption *118.764082*

Year	Gallons per year	
	Gasoline	Diesel
2022	447.223407	11577.4575
2023	37748.8787	60350.5576
2024	64135.0343	30957.9889
2025	55899.4246	19560.0648
Total	158,231	122,446

Demo Calculations

Code	Year	Lookup	Days	Demo (tons/day)	Pounds per day							
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	2022	Phase1:2022	30	80.2485						0.6	0.1	
Phase1	2023	Phase1:2023	17	80.2485						0.6	0.1	

Phase	Activity	Structure (SF)	Tons	CY
Phase1	Demolition	81993.0	3772	2983.530172

Demo Calculations

Code	Year	Lookup	Days	Demo (tons/day)	Tons per year								Metric tons per year			
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase1	2022	Phase1:2022	30	80.2485						0.0	0.0					
Phase1	2023	Phase1:2023	17	80.2485						0.0	0.0					

Phase	Activity	Structure (SF)	Tons	CY
Phase1	Demolition	81993.0	3772	2983.530172

Offroad Calculations

Code	Equip	#/day	hrs/day	Year	Days	CMOD	HP Bin	HP	LF	Fuel	Fuel (gal/day)	Pounds per day							
												ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	Excavator	2	8	2022	30	Excavators	500	417	0.38	Diesel	117	0.7	5.8	6.0	0.2	0.2			0.0
Phase1	Excavator	2	8	2023	17	Excavators	500	417	0.38	Diesel	117	0.7	5.0	5.9	0.2	0.2			0.0
Phase2	Excavator	1	8	2023	13	Excavators	500	417	0.38	Diesel	59	0.3	2.5	3.0	0.1	0.1			0.0
Phase3	Excavator	1	8	2023	33	Excavators	500	417	0.38	Diesel	59	0.3	2.5	3.0	0.1	0.1			0.0
Phase4a	Concrete Placing Boom Truck	4	20	2023	1	Off-Highway Trucks	500	402	0.38	Diesel	571	5.1	35.9	33.0	1.3	1.2			0.1
Phase4b	Generator	0	6	2023	150	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase4b	Pump	1	12	2023	6	Pumps	500	443	0.74	Diesel	219	1.5	10.8	8.7	0.3	0.3			0.0
Phase4b	Generator	0	6	2024	262	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase4b	Pump	1	12	2024	39	Pumps	500	443	0.74	Diesel	219	1.4	9.5	8.6	0.3	0.3			0.0
Phase4b	Generator	0	6	2025	224	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase5	Asphalt Paver	1	10	2025	1	Pavers	175	173	0.42	Diesel	33	0.3	2.6	4.8	0.1	0.1			0.0
Phase6	Air Compressor	0	8	2024	109	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase6	Air Compressor	0	8	2025	224	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0

*Concrete pump will operate every 6 days for a total of 45 days during Phase 4, with 6 days in 2023 and 39 days in 2024.

Offroad Calculations

Code	Equip	#/day	hrs/day	Year	Days	CMOD	HP Bin	HP	LF	Fuel	Fuel (gal/day)	Tons per year							Metric tons per year				Fuel (gal/year)
												ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D SO2	CO2	CH4	N2O	CO2e	
Phase1	Excavator	2	8	2022	30	Excavators	500	417	0.38	Diesel	117	0.0	0.1	0.1	0.0	0.0		0.0	35.9	0.0	0.0	36.5	3517
Phase1	Excavator	2	8	2023	17	Excavators	500	417	0.38	Diesel	117	0.0	0.0	0.1	0.0	0.0		0.0	20.4	0.0	0.0	20.7	1994
Phase2	Excavator	1	8	2023	13	Excavators	500	417	0.38	Diesel	59	0.0	0.0	0.0	0.0	0.0		0.0	7.8	0.0	0.0	7.9	762
Phase3	Excavator	1	8	2023	33	Excavators	500	417	0.38	Diesel	59	0.0	0.0	0.0	0.0	0.0		0.0	19.8	0.0	0.0	20.1	1935
Phase4a	Concrete Placing Boom Truck	4	20	2023	1	Off-Highway Trucks	500	402	0.38	Diesel	571	0.0	0.0	0.0	0.0	0.0		0.0	5.8	0.0	0.0	5.9	571
Phase4b	Generator	0	6	2023	150	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase4b	Pump	1	12	2023	6	Pumps	500	443	0.74	Diesel	219	0.0	0.0	0.0	0.0	0.0		0.0	13.4	0.0	0.0	13.5	1314
Phase4b	Generator	0	6	2024	262	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase4b	Pump	1	12	2024	39	Pumps	500	443	0.74	Diesel	219	0.0	0.2	0.2	0.0	0.0		0.0	87.2	0.0	0.0	87.9	8540
Phase4b	Generator	0	6	2025	224	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase5	Asphalt Paver	1	10	2025	1	Pavers	175	173	0.42	Diesel	33	0.0	0.0	0.0	0.0	0.0		0.0	0.3	0.0	0.0	0.3	33
Phase6	Air Compressor	0	8	2024	109	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase6	Air Compressor	0	8	2025	224	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0

*Concrete pump will operate every 6 days for a total of 45 days during Phase 4, with 6 days in 2023 and 39 days in 2024.

Employee Calculations

Code	Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	15	30	30	441	Employee	LDA-LDT	Gas	15	0.1	0.1	1.0	0.0	0.0	0.4	0.1	0.0
Phase1	SCAB	2023	15	30	17	441	Employee	LDA-LDT	Gas	15	0.1	0.1	0.9	0.0	0.0	0.4	0.1	0.0
Phase2	SCAB	2023	20	40	13	588	Employee	LDA-LDT	Gas	19	0.1	0.1	1.2	0.0	0.0	0.6	0.1	0.0
Phase3	SCAB	2023	30	60	33	882	Employee	LDA-LDT	Gas	29	0.1	0.1	1.8	0.0	0.0	0.8	0.1	0.0
Phase4a	SCAB	2023	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
Phase4b	SCAB	2023	250	500	150	7350	Employee	LDA-LDT	Gas	242	1.0	1.0	15.1	0.0	0.0	7.0	1.2	0.0
Phase4b	SCAB	2024	250	500	262	7350	Employee	LDA-LDT	Gas	237	1.0	0.9	14.2	0.0	0.0	7.0	1.2	0.0
Phase4b	SCAB	2025	250	500	224	7350	Employee	LDA-LDT	Gas	231	0.9	0.8	13.3	0.0	0.0	7.0	1.2	0.0
Phase5	SCAB	2025	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
Phase6	SCAB	2024	20	40	109	588	Employee	LDA-LDT	Gas	19	0.1	0.1	1.1	0.0	0.0	0.6	0.1	0.0
Phase6	SCAB	2025	20	40	224	588	Employee	LDA-LDT	Gas	18	0.1	0.1	1.1	0.0	0.0	0.6	0.1	0.0

Employee Calculations

Code	Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	15	30	30	441	Employee	LDA-LDT	Gas	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	4.0	447
Phase1	SCAB	2023	15	30	17	441	Employee	LDA-LDT	Gas	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.2	247
Phase2	SCAB	2023	20	40	13	588	Employee	LDA-LDT	Gas	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.2	252
Phase3	SCAB	2023	30	60	33	882	Employee	LDA-LDT	Gas	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	8.5	958
Phase4a	SCAB	2023	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Phase4b	SCAB	2023	250	500	150	7350	Employee	LDA-LDT	Gas	242	0.1	0.1	1.1	0.0	0.0	0.5	0.1	0.0	318.6	0.0	0.0	321.1	36288
Phase4b	SCAB	2024	250	500	262	7350	Employee	LDA-LDT	Gas	237	0.1	0.1	1.9	0.0	0.0	0.9	0.2	0.0	545.0	0.0	0.0	549.0	62069
Phase4b	SCAB	2025	250	500	224	7350	Employee	LDA-LDT	Gas	231	0.1	0.1	1.5	0.0	0.0	0.8	0.1	0.0	454.4	0.0	0.0	457.7	51754
Phase5	SCAB	2025	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Phase6	SCAB	2024	20	40	109	588	Employee	LDA-LDT	Gas	19	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	18.1	0.0	0.0	18.3	2066
Phase6	SCAB	2025	20	40	224	588	Employee	LDA-LDT	Gas	18	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	36.4	0.0	0.0	36.6	4140

Offsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	30	60	30	1800	Dump Truck	T7	Diesel	261	0.3	14.0	1.9	0.1	0.1	1.9	0.4	0.1
Phase1	SCAB	2022	1	2	30	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	30	60	17	1800	Dump Truck	T7	Diesel	248	0.1	9.9	1.4	0.1	0.1	1.9	0.4	0.1
Phase1	SCAB	2023	1	2	17	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	5	10	13	350	Dump Truck	T7	Diesel	48	0.0	1.9	0.3	0.0	0.0	0.4	0.1	0.0
Phase2	SCAB	2023	1	2	13	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase3	SCAB	2023	126	252	33	7560	Dump Truck	T7	Diesel	1041	0.5	41.5	5.8	0.2	0.2	8.0	1.6	0.2
Phase3	SCAB	2023	1	2	33	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase4a	SCAB	2023	576	1,152	1	7949	Concrete Truck	T6	Diesel	751	0.2	35.2	2.7	0.2	0.2	9.2	2.0	0.2
Phase4b	SCAB	2023	10	20	150	600	Dump Truck	T7	Diesel	83	0.0	3.3	0.5	0.0	0.0	0.6	0.1	0.0
Phase4b	SCAB	2024	10	20	262	600	Dump Truck	T7	Diesel	82	0.0	3.2	0.5	0.0	0.0	0.6	0.1	0.0
Phase4b	SCAB	2025	10	20	224	600	Dump Truck	T7	Diesel	81	0.0	3.2	0.5	0.0	0.0	0.6	0.1	0.0
Phase5	SCAB	2025	10	20	1	300	Dump Truck	T7	Diesel	41	0.0	1.8	0.3	0.0	0.0	0.3	0.1	0.0
Phase6	SCAB	2024	1	2	109	30	Dump Truck	T7	Diesel	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2025	1	2	224	30	Dump Truck	T7	Diesel	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

Offsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	30	60	30	1800	Dump Truck	T7	Diesel	261	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	79.8	0.0	0.0	83.6	7818
Phase1	SCAB	2022	1	2	30	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	41
Phase1	SCAB	2023	30	60	17	1800	Dump Truck	T7	Diesel	248	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0	0.0	45.0	4213
Phase1	SCAB	2023	1	2	17	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22
Phase2	SCAB	2023	5	10	13	350	Dump Truck	T7	Diesel	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	6.7	625
Phase2	SCAB	2023	1	2	13	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	17
Phase3	SCAB	2023	126	252	33	7560	Dump Truck	T7	Diesel	1041	0.0	0.7	0.1	0.0	0.0	0.1	0.0	0.0	350.7	0.0	0.1	367.2	34351
Phase3	SCAB	2023	1	2	33	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	43
Phase4a	SCAB	2023	576	1,152	1	7949	Concrete Truck	T6	Diesel	751	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	8.0	751
Phase4b	SCAB	2023	10	20	150	600	Dump Truck	T7	Diesel	83	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	126.5	0.0	0.0	132.5	12392
Phase4b	SCAB	2024	10	20	262	600	Dump Truck	T7	Diesel	82	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0	218.4	0.0	0.0	228.6	21386
Phase4b	SCAB	2025	10	20	224	600	Dump Truck	T7	Diesel	81	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0	184.2	0.0	0.0	192.9	18046
Phase5	SCAB	2025	10	20	1	300	Dump Truck	T7	Diesel	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	41
Phase6	SCAB	2024	1	2	109	30	Dump Truck	T7	Diesel	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	4.9	454
Phase6	SCAB	2025	1	2	224	30	Dump Truck	T7	Diesel	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	9.8	921

Onsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	30	60	30	4	Dump Truck	T7Onsite	Diesel	7	0.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2022	1	6	30	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	30	60	17	4	Dump Truck	T7Onsite	Diesel	6	0.0	1.2	0.7	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	1	6	17	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	5	10	13	1	Dump Truck	T7Onsite	Diesel	1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	1	6	13	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase3	SCAB	2023	126	252	33	15	Dump Truck	T7Onsite	Diesel	27	0.2	5.1	2.9	0.0	0.0	0.2	0.2	0.0
Phase3	SCAB	2023	1	6	33	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase4a	SCAB	2023	576	1,152	1	69	Cement Truck	T6Onsite	Diesel	16	0.0	1.1	0.1	0.0	0.0	1.0	0.9	0.0
Phase4b	SCAB	2023	10	20	150	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase4b	SCAB	2024	10	20	262	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase4b	SCAB	2025	10	20	224	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase5	SCAB	2025	10	20	1	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2024	1	2	109	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2025	1	2	224	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	30	60	30	4	Dump Truck	T7Onsite	Diesel	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.1	197
Phase1	SCAB	2022	1	6	30	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	5
Phase1	SCAB	2023	30	60	17	4	Dump Truck	T7Onsite	Diesel	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.2	109
Phase1	SCAB	2023	1	6	17	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
Phase2	SCAB	2023	5	10	13	1	Dump Truck	T7Onsite	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	14
Phase2	SCAB	2023	1	6	13	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Phase3	SCAB	2023	126	252	33	15	Dump Truck	T7Onsite	Diesel	27	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.5	890
Phase3	SCAB	2023	1	6	33	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	5
Phase4a	SCAB	2023	576	1,152	1	69	Cement Truck	T6Onsite	Diesel	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	16
Phase4b	SCAB	2023	10	20	150	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.4	321
Phase4b	SCAB	2024	10	20	262	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	5.9	555
Phase4b	SCAB	2025	10	20	224	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	5.0	470
Phase5	SCAB	2025	10	20	1	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Phase6	SCAB	2024	1	2	109	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	23
Phase6	SCAB	2025	1	2	224	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	47

Earthmoving/Paving Calculations

Code	Air Basin	Year	Lookup	Days	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day							
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase3	SCAB	2023	Phase3:2023	33	0.0500	1758	8	0	0.0					2.4	1.3	
Phase5	SCAB	2025	Phase5:2025	1	0.0000	0	0	4356	0.3					0.0	0.0	

Phase	Activity	Total	Unit	Total days	Unit/day
Phase3	Grading	0.6	acres	33	0.05
Phase3	Import/export, overexcavat/recompact	58000.0	CY	33	1757.58
Phase5	Paving	4356.0	SF	1	4356.00

Earthmoving/Paving Calculations

Code	Air Basin	Year	Lookup	Days	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Tons per year								Metric tons per year			
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase3	SCAB	2023	Phase3:2023	33	0.0500	1758	8	0	0.0					0.0	0.0					
Phase5	SCAB	2025	Phase5:2025	1	0.0000	0	0	4356	0.0					0.0	0.0					

Phase	Activity	Total	Unit	Total days	Unit/day
Phase3	Grading	0.6	acres	33	0.05
Phase3	Import/export, overexcavat/recompact	58000.0	CY	33	1757.58
Phase5	Paving	4356.0	SF	1	4356.00

Paving Calculations

Code	Year	Lookup	Days	Daily Residential Coating SF	Daily Nonresidential	Daily Parking	Pounds per day							
							ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase6	2024	Phase6:2024	109	3961	21	19	9.3							
Phase6	2025	Phase6:2025	224	3961	21	19	9.3							

*Parking SF based on 26,277.2 gsf per parking level from data provided by MVE + Partners.

Phase	Land Use	SF	Tot Coating SF	Daily Coating SF
Phase6	Residential	373480.00	1008396.00	3028.22
Phase6	Hotel Rooms	115068.00	310683.60	932.98
Phase6	on-Residenti	3429.00	6858.00	20.59
Phase6	Parking	105109.00	6306.54	18.94

Paving Calculations

Code	Year	Lookup	Days	Daily Residential Coating SF	Daily Nonresidential	Daily Parking	Tons per year							Metric tons per year			
							ROG	NOX	CO	PM10	PM2.5	PM10 D PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase6	2024	Phase6:2024	109	3961	21	19	0.5										
Phase6	2025	Phase6:2025	224	3961	21	19	1.0										

*Parking SF based on 26,277.2 gsf per parking level from data provided by MVE + Partners.

Phase	Land Use	SF	Tot Coating SF	Daily Coating SF
Phase6	Residential	373480.00	1008396.00	3028.22
Phase6	Hotel Rooms	115068.00	310683.60	932.98
Phase6	on-Residenti	3429.00	6858.00	20.59
Phase6	Parking	105109.00	6306.54	18.94

Electric Construction Equipment Energy Calculations

Code	Year	Lookup	Equipment	#/day	hrs/day	Days	Daily Consumption (MWh)	Daily Consumption (MMBTU)	Total Consumption (MWh)	Metric tons per year			
										CO2	CH4	N2O	CO2e
Phase4b	2023	Phase4b:2023	Tower Crane	1	12	150	2	na	311	93.6	0.0	0.0	93.9
Phase4b	2023	Phase4b:2023	Manlift	3	12	150	2	na	324	97.4	0.0	0.0	97.7
Phase4b	2023	Phase4b:2023	Concrete Boom	1	12	150	0	na	54	16.2	0.0	0.0	16.3
Phase4b	2024	Phase4b:2024	Tower Crane	1	12	262	2	na	544	154.1	0.0	0.0	154.5
Phase4b	2024	Phase4b:2024	Manlift	3	12	262	2	na	566	160.4	0.0	0.0	160.8
Phase4b	2024	Phase4b:2024	Concrete Boom	1	12	262	0	na	94	26.7	0.0	0.0	26.8
Phase4b	2025	Phase4b:2025	Tower Crane	1	12	224	2	na	465	123.7	0.0	0.0	124.0
Phase4b	2025	Phase4b:2025	Manlift	3	12	224	2	na	484	128.7	0.0	0.0	129.1
Phase4b	2025	Phase4b:2025	Concrete Boom	1	12	224	0	na	81	21.5	0.0	0.0	21.5
Phase1	2022	Phase1:2022	Offsite Office	NA	NA	30	0.107	0.086	3	1.2	0.0	0.0	1.2
Phase1	2023	Phase1:2023	Offsite Office	NA	NA	17	0.107	0.086	2	0.6	0.0	0.0	0.6
Phase2	2023	Phase2:2023	Offsite Office	NA	NA	13	0.107	0.086	1	0.5	0.0	0.0	0.5
Phase3	2023	Phase3:2023	Offsite Office	NA	NA	33	0.107	0.086	4	1.2	0.0	0.0	1.2
Phase4b	2023	Phase4b:2023	Offsite Office	NA	NA	150	0.107	0.086	16	5.5	0.0	0.0	5.5
Phase4b	2024	Phase4b:2024	Offsite Office	NA	NA	262	0.107	0.086	28	9.1	0.0	0.0	9.1
Phase4b	2025	Phase4b:2025	Offsite Office	NA	NA	224	0.107	0.086	24	7.4	0.0	0.0	7.4
Phase5	2025	Phase5:2025	Offsite Office	NA	NA	1	0.107	0.086	0	0.0	0.0	0.0	0.0
Phase6	2024	Phase6:2024	Offsite Office	NA	NA	109	0.107	0.086	12	3.8	0.0	0.0	3.8
Phase6	2025	Phase6:2025	Offsite Office	NA	NA	224	0.107	0.086	24	7.4	0.0	0.0	7.4
									3037				

Equip	Electrical Consumption	Unit	Notes
Tower Crane	173	kW	550 EC-H20 Litronic Tower Crane (total kW of all motors)
Manlift	60	kW	*Assumes 480V, 3-phase, 100 amp manlift with 0.85 power factor
Concrete Boom	30	kW	Assumes Schwing Stetter SPB 32 (split boom)

Temp Office Offsite	Size	Unit	kWH/yr	kBTU/yr
General Office Buildir	3000	sf	38970	31230

D-2: Operations Energy Consumption

Operations Energy Consumption Summary

Transportation Fuel

Fuel Type	Gallons/Year
Gas	131,496
Diesel	25,103

County: Los Angeles

Fuel Type	Gallons (Retail + Non-Retail	Percent of Project Compared to County
Gas	3,559,000,000	0.004%
Diesel	575,000,000	0.004%

Electricity[1]

Comparison	GWh/year
LADWP Forecasted Sales for 2026	23,807
Annual Project Consumption	3.43
Project % of Sales	0.0144%

Natural Gas[1]

Comparison	MMscf/year
SoCalGas Forecasted Throughtput for 2026	1,253,775
Annual Project Consumption	6.36
Project % of Sales	0.00051%

1) Values shown represent worst-case energy consumption where TORS Hotel units were modeled using the "Hotel" land use in CalEEMod.

Fuel Consumption

Fuel Type	Vehicle Category	VMT (miles/day)	Fuel Consumption (1000gal/day)
Diesel	HHDT	7578126.83	1028.60
Diesel	LDA	1610940.87	30.77
Diesel	LDT1	4859.85	0.21
Diesel	LDT2	472830.63	12.25
Diesel	LHDT1	3343656.58	144.51
Diesel	LHDT2	1304546.10	62.67
Diesel	MDV	968712.27	32.43
Diesel	MH	72792.55	6.54
Diesel	MHDT	4647457.17	402.70
Diesel	OBUS	262677.03	28.87
Diesel	SBUS	124601.82	15.64
Diesel	UBUS	4008.97	0.59
Gasoline	HHDT	6638.28	1.47
Gasoline	LDA	151809382.49	4507.99
Gasoline	LDT1	18505351.89	642.25
Gasoline	LDT2	54105073.64	1946.71
Gasoline	LHDT1	3784880.98	343.72
Gasoline	LHDT2	635997.96	66.38
Gasoline	MCY	1375739.64	38.76
Gasoline	MDV	33032008.24	1467.67
Gasoline	MH	198228.53	36.25
Gasoline	MHDT	832629.69	154.65
Gasoline	OBUS	155211.13	29.21
Gasoline	SBUS	70232.27	7.32
Gasoline	UBUS	34373.92	7.11

Annual VMT
4,050,878

Vehicle Category	Fuel Consumption Factor (gal/mi)		Fuel Distribution		Fleet Mix	Miles/Vehicle Category	Gallons of Fuel	
	DSL	GAS	DSL	GAS			DSL	GAS
HHDT	0.14	0.22	99.9%	0.1%	2.66%	107,829.21	14,623.14	20.89
LDA	0.02	0.03	1.1%	98.9%	53.84%	2,181,108.02	437.40	64,088.02
LDT1	0.04	0.03	0.0%	99.97%	6.50%	263,151.39	2.97	9,130.52
LDT2	0.03	0.04	0.9%	99.1%	19.15%	775,909.62	174.21	27,675.54
LHDT1	0.04	0.09	46.9%	53.1%	2.50%	101,343.23	2,054.46	4,886.49
LHDT2	0.05	0.10	67.2%	32.8%	0.68%	27,587.85	890.94	943.69
MCY	0.00	0.03	0.0%	100.0%	0.48%	19,558.27	0.00	551.09
MDV	0.03	0.04	2.8%	97.2%	11.93%	483,373.02	461.00	20,865.17
MH	0.09	0.18	26.9%	73.1%	0.10%	3,852.99	92.97	515.35
MHDT	0.09	0.19	84.8%	15.2%	1.92%	77,907.94	5,725.07	2,198.60
OBUS	0.11	0.19	62.9%	37.1%	0.15%	5,940.93	410.49	415.31
SBUS	0.13	0.10	64.0%	36.0%	0.07%	2,769.87	222.32	104.04
UBUS	0.15	0.21	10.4%	89.6%	0.01%	545.67	8.39	101.15
							25,103.36	**131,495.86**

Utility Consumption

Electricity[4,5]

Land Use	kWh/year	GWh/year
Apartments High Rise	1,242,460	1.242
Enclosed Parking with Elevator	615,939	0.616
Hotel	872,215	0.872
Quality Restaurant	151,356	0.151
Swimming Pool	26,736	0.027
Total	**2,908,706**	**2.909**

Comparison	GWh/year
LADWP Forecasted Sales for 2026[1]	23,807.00
Annual Project Consumption	3.425
Project % of Sales	0.0144%

Water Consumption[4,5]

Land Use	Mgal/yr	kWh/yr
Apartments High Rise	33.89	441244
Enclosed Parking with Elevator	0.00	0
Hotel	4.51	58720
Quality Restaurant	1.11	14422
Swimming Pool	0.149	1946
Total	40	516332

Electricity Intensity Factors	kWh/Mgal
Electricity Factor - Supply	9,727.00
Electricity Factor - Treat	111.00
Electricity Factor - Distribute	1,272.00
Electricity Factor - Wastewater Treatment	1,911.00
Total	**13,021.00**

Electricity from Water Demand	kWh/yr	GWh/yr
Total	**516,332.06**	**0.52**

Natural Gas

Land Use	kBTU/year	MMscf/year
Apartments High Rise	2,940,200	2.88
Enclosed Parking with Elevator	0	0.00
Hotel	2,759,330	2.71
Quality Restaurant	791,276	0.78
Total	**6,490,806**	**6.364**

Comparison	MMscf/year
SoCalGas Forecasted Capacity for 2026[2]	1,253,775.00
Annual Project Consumption	6.36
Project % of Sales	0.00051%

Natural Gas HHV (BTU/scf)[3] 1,020.00

Notes:

1 LADWP 2017 Strategic Long-Term Resource Plan, Appendix A, 2026-2027 p. A-6
file:///C:/Users/53797/Downloads/FINAL%202017%20SLTRP%20v2.pdf

2 2020 California Gas Report, Prepared by California Gas and Electric Utilities
https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_Utility_Biennial_Comprehensive_Filing.pdf

3 USEPA AP-42, 1.4 Natural Gas Combustion
https://www.epa.gov/sites/production/files/2020-09/documents/1.4_natural_gas_combustion.pdf

4 Electricity, water, and natural gas values from CalEEMod Annual Output file

5 Swimming pool values estimated CalEEMod Annual Output file

1111 Hill St. Mixed-Use Project - Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0
Quality Restaurant	3.43	1000sqft	0.00	3,429.00	0
Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00	912
Hotel	160.00	Room	0.63	115,068.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use - Project land uses and square footages; Project's 160 hotel units modeled as HOTEL. Parking SF based on approximatley 26,277.2 SF per level.

Construction Phase - Operational emisisons only

Off-road Equipment - architectural coating equip

Off-road Equipment - Electric equip only for Building phase

Off-road Equipment - Demo equip

Off-road Equipment - Grading equip

Off-road Equipment - paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Operational emissions only

Demolition -

Grading - Operational emissions only

Architectural Coating - Operational emissions only

Vehicle Trips - Mobile emissions estimated outside of CalEEMod model

Woodstoves - Gas fireplaces for 50% of the 319 residential units

Area Coating - 50 g/L coatings

Energy Use -

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Energy Mitigation - Energy Star % improvement

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Based on Caterpillar C32 generator spec sheet: 1250 kVA @ 0.8 power factor (assumes 100% motor efficiency), which is approximately 1,341 HP

Stationary Sources - Emergency Generators and Fire Pumps EF - EF for CAT C32 Generator

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	60.00
tblApplianceMitigation	PercentImprovement	15.00	9.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblFireplaces	NumberGas	271.15	160.00
tblFireplaces	NumberNoFireplace	31.90	159.00
tblFireplaces	NumberWood	15.95	0.00
tblLandUse	LandUseSquareFeet	174,400.00	105,109.00
tblLandUse	LandUseSquareFeet	3,430.00	3,429.00
tblLandUse	LandUseSquareFeet	232,320.00	115,068.00
tblLandUse	LandUseSquareFeet	319,000.00	373,480.00
tblLandUse	LotAcreage	3.92	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	5.33	0.63
tblLandUse	LotAcreage	5.15	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CO_EF	2.60	0.44
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	7.57
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.04
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.04
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	ST_TR	4.98	0.00

tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	89.95	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblWoodstoves	NumberCatalytic	15.95	0.00
tblWoodstoves	NumberNoncatalytic	15.95	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0336	0.0711	3.3084	3.9000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	43.8106	43.8106	5.9200e-003	7.0000e-004	44.1685
Energy	0.0350	0.3095	0.2039	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	1,067.9133	1,067.9133	0.0356	0.0103	1,071.8729
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Waste						0.0000	0.0000		0.0000	0.0000	48.2043	0.0000	48.2043	2.8488	0.0000	119.4240
Water						0.0000	0.0000		0.0000	0.0000	8.2118	121.3905	129.6023	0.8483	0.0206	156.9426
Total	**2.1786**	**1.1975**	**3.5597**	**2.8300e-003**	**0.0000**	**0.0495**	**0.0495**	**0.0000**	**0.0495**	**0.0495**	**56.4160**	**1,284.1793**	**1,340.5953**	**3.7458**	**0.0316**	**1,443.6519**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0336	0.0711	3.3084	3.9000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	43.8106	43.8106	5.9200e-003	7.0000e-004	44.1685
Energy	0.0350	0.3095	0.2039	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	1,062.7418	1,062.7418	0.0354	0.0103	1,066.6878
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Waste						0.0000	0.0000		0.0000	0.0000	11.5690	0.0000	11.5690	0.6837	0.0000	28.6618
Water						0.0000	0.0000		0.0000	0.0000	6.5694	104.6352	111.2047	0.6789	0.0165	133.0967
Total	**2.1786**	**1.1975**	**3.5597**	**2.8300e-003**	**0.0000**	**0.0495**	**0.0495**	**0.0000**	**0.0495**	**0.0495**	**18.1384**	**1,262.2525**	**1,280.3910**	**1.4111**	**0.0275**	**1,323.8587**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**67.85**	**1.71**	**4.49**	**62.33**	**13.01**	**8.30**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Quality Restaurant	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Hotel	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	716.3675	716.3675	0.0288	3.9200e-003	718.2551
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	721.5390	721.5390	0.0290	3.9500e-003	723.4402
NaturalGas Mitigated	0.0350	0.3095	0.2039	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	346.3744	346.3744	6.6400e-003	6.3500e-003	348.4327
NaturalGas Unmitigated	0.0350	0.3095	0.2039	1.9100e-003		0.0242	0.0242		0.0242	0.0242	0.0000	346.3744	346.3744	6.6400e-003	6.3500e-003	348.4327

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	2.9402e+006	0.0159	0.1355	0.0577	8.6000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	156.9005	156.9005	3.0100e-003	2.8800e-003	157.8329
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.75933e+006	0.0149	0.1353	0.1136	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.2484	147.2484	2.8200e-003	2.7000e-003	148.1234
Quality Restaurant	791276	4.2700e-003	0.0388	0.0326	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003	0.0000	42.2255	42.2255	8.1000e-004	7.7000e-004	42.4764
Total		**0.0350**	**0.3095**	**0.2039**	**1.9000e-003**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**346.3744**	**346.3744**	**6.6400e-003**	**6.3500e-003**	**348.4327**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	2.9402e+006	0.0159	0.1355	0.0577	8.6000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	156.9005	156.9005	3.0100e-003	2.8800e-003	157.8329
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.75933e+006	0.0149	0.1353	0.1136	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.2484	147.2484	2.8200e-003	2.7000e-003	148.1234
Quality Restaurant	791276	4.2700e-003	0.0388	0.0326	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003	0.0000	42.2255	42.2255	8.1000e-004	7.7000e-004	42.4764
Total		**0.0350**	**0.3095**	**0.2039**	**1.9000e-003**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**346.3744**	**346.3744**	**6.6400e-003**	**6.3500e-003**	**348.4327**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.26327e+006	314.0082	0.0126	1.7200e-003	314.8356
Enclosed Parking with Elevator	615939	153.1030	6.1500e-003	8.4000e-004	153.5065
Hotel	872215	216.8054	8.7000e-003	1.1900e-003	217.3767
Quality Restaurant	151356	37.6224	1.5100e-003	2.1000e-004	37.7215
Total		**721.5390**	**0.0290**	**3.9600e-003**	**723.4402**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.24246e+006	308.8367	0.0124	1.6900e-003	309.6505
Enclosed Parking with Elevator	615939	153.1030	6.1500e-003	8.4000e-004	153.5065
Hotel	872215	216.8054	8.7000e-003	1.1900e-003	217.3767
Quality Restaurant	151356	37.6224	1.5100e-003	2.1000e-004	37.7215
Total		**716.3675**	**0.0288**	**3.9300e-003**	**718.2551**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0336	0.0711	3.3084	3.9000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	43.8106	43.8106	5.9200e-003	7.0000e-004	44.1685
Unmitigated	2.0336	0.0711	3.3084	3.9000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	43.8106	43.8106	5.9200e-003	7.0000e-004	44.1685

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8800e-003	0.0332	0.0141	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.4219	38.4219	7.4000e-004	7.0000e-004	38.6503
Landscaping	0.0994	0.0379	3.2943	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.3886	5.3886	5.1800e-003	0.0000	5.5182
Total	**2.0336**	**0.0711**	**3.3084**	**3.8000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**43.8106**	**43.8106**	**5.9200e-003**	**7.0000e-004**	**44.1685**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1458					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.8800e-003	0.0332	0.0141	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.4219	38.4219	7.4000e-004	7.0000e-004	38.6503
Landscaping	0.0994	0.0379	3.2943	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.3886	5.3886	5.1800e-003	0.0000	5.5182
Total	**2.0336**	**0.0711**	**3.3084**	**3.8000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**43.8106**	**43.8106**	**5.9200e-003**	**7.0000e-004**	**44.1685**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	111.2047	0.6789	0.0165	133.0967
Unmitigated	129.6023	0.8483	0.0206	156.9426

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	20.7841 / 13.103	110.0494	0.6814	0.0166	132.0187
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	4.05868 / 0.450965	15.6694	0.1328	3.2000e-003	19.9442
Quality Restaurant	1.04112 / 0.0664545	3.8835	0.0341	8.2000e-004	4.9797
Total		**129.6023**	**0.8483**	**0.0206**	**156.9426**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	16.6273 / 13.103	95.2765	0.5454	0.0133	112.8711
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	3.24695 / 0.450965	12.7846	0.1063	2.5600e-003	16.2051
Quality Restaurant	0.832897 / 0.0664545	3.1435	0.0273	6.6000e-004	4.0206
Total		**111.2047**	**0.6789**	**0.0165**	**133.0967**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.5690	0.6837	0.0000	28.6618
Unmitigated	48.2043	2.8488	0.0000	119.4240

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	146.74	29.7869	1.7604	0.0000	73.7958
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	87.6	17.7820	1.0509	0.0000	44.0542
Quality Restaurant	3.13	0.6354	0.0376	0.0000	1.5741
Total		**48.2043**	**2.8488**	**0.0000**	**119.4240**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	35.2176	7.1489	0.4225	0.0000	17.7110
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	21.024	4.2677	0.2522	0.0000	10.5730
Quality Restaurant	0.7512	0.1525	9.0100e-003	0.0000	0.3778
Total		**11.5690**	**0.6837**	**0.0000**	**28.6618**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	1	50	1341	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Total	**0.1100**	**0.8169**	**0.0475**	**5.3000e-004**		**4.3200e-003**	**4.3200e-003**		**4.3200e-003**	**4.3200e-003**	**0.0000**	**51.0649**	**51.0649**	**7.1600e-003**	**0.0000**	**51.2439**

11.0 Vegetation

Swimming Pool Information

Water Use

Pool Capacity (gal)[1]	Pool Capacity (ft^3)	Depth of Pool (ft)[1]	Area of Pool (ft^2)	Daily Water Use (gal per day)[1]	Days per year	Annual Water Use (gal per day)	Annual Refill (gal/year)[2]	Total Water Usage (gal)	Total Water Usage (Mgal)	Annual Emissions ($MTCO_2e)_6$
74,650	9,979	5	1,996	205	365	74,825	74,650	149,475	0.149	0.6885

Electricity Use		LADWP Intensity Factors (lb/MWh)[4]			Global Warming Potentials[5]			Metric Tons			
Annual Electricity Consumption (kWh)[3]	Annual Electricity Consumption (MWh)	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2e
26,736	26.74	548	0.022	0.003	1	25	298	6.65	0.00	0.00	6.66

Notes:

1 Values based on PSOMAS Utilities Memorandum.

2 Utilities memo assumes pool would be drained and filled once per year for maintenance.

3 Electricity consumption based on Commercial Pump Calculator from Pentair

4 Intensity factors based on LADWP's RPS requirements for 2026.

5 GWPs based on IPCC AR 4.

6 GHG emissions associated with pool water use estimated in CalEEMod.

Total Annual Emissions ($MTCO_2e$): 7.35

1111 South Hill Street-Swimming Pool - Los Angeles-South Coast County, Annual

1111 South Hill Street-Swimming Pool

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Recreational Swimming Pool	2.00	1000sqft	0.05	1,996.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use -

Vehicle Trips - No mobile emissions associated with pool amenity.

Energy Use -

Water And Wastewater - Total water use for swimming pool based on Utilites Memo.

Solid Waste - No solid waste mobile emissions associated with pool amenity.

Landscape Equipment - No landscaping emissions associated with pool amenity.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	11.40	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblWater	IndoorWaterUseRate	118,286.29	149,475.00
tblWater	OutdoorWaterUseRate	72,498.05	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0474	0.4838	0.5312	4.8900e-003	1.2000e-004	0.6885
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0474**	**0.4838**	**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0474	0.4838	0.5312	4.8900e-003	1.2000e-004	0.6885
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0474**	**0.4838**	**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.5312	4.8900e-003	1.2000e-004	0.6885
Unmitigated	0.5312	4.8900e-003	1.2000e-004	0.6885

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	0.149475 / 0	0.5312	4.8900e-003	1.2000e-004	0.6885
Total		**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	0.149475 / 0	0.5312	4.8900e-003	1.2000e-004	0.6885
Total		**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

For Commercial Pools

Pool Pump Savings Calculator

COMMERCIAL POOL PUMP CALCULATOR

See how much you can save with an IntelliFlo® variable speed pump for your Commercial pool.

COMMERCIAL POOL PUMP SAVINGS CALCULATOR

Pool Information

Operational Characteristics

Pool Size	76000 Gal
Turn Over Time	6 Hrs
Minimum Required Flow Rate	211.1 GPM
Min. Flow Rate Required All Day	Yes
Operational Days Per Year	365 Days
Cost of Electricity	0.14 /kWh

Hydraulic and Head Loss Characteristics*

HP of Existing Pump	3 Hp
Filter Type	Cartridge
Pipe Size (suction)	2 Inches
Pipe Size (return)	2 Inches
Head Loss Characteristics	Medium
Estimated Flow Rate	101.7 GPM

Intermediate Results

	Standard Pump Existing Operational Costs	IntelliFlo Variable Speed Pump Estimated Operational Costs
Power Demand (Open)	3.05 kW	2.720 kW
Energy Per Day (Open)	73.25 kWh/Day	65.3 kWh/Day
Cost Per Day	10.25 $/Day	9.14 $/Day
Energy Per Year	26,735.5 kWh/Year	23,827.2 kWh/Year
Cost Per Year	3,742.97 $/Year	3,335.81 $/Year

Warning: Existing pump appears to be insufficient to provide the minimum required flowrate. Savings estimates may not be realistic since the variable speed data is based on meeting the minimum required flowrate.

Warning: Variable speed pump appears to be insufficient to provide the minimum required flowrate.

Savings Summary

Savings Per Day

Energy Per Day	0 kWh/Day
Savings Per Day	0 $/Day

Savings Per Year

Energy Per Year	0 kWh/Year
Savings Per Year	0 $/Year

Annual Reduction in Energy Cost is 0 %

*This calculator is based on standardized performance data as supplied to the California Energy Commission per the Title 20 Appliance Efficiency Regulations. The pump's actual performance and subsequent energy consumption is dependent upon various characteristics of the plumbing system, including but not limited to; pipe size, pipe lengths, filter type, fittings, and auxiliary equipment, etc. The data (as published in the CEC database) is limited to pump performance as set forth in Curve A or Curve C below:

- Curve A = ~High head – Pump performance is based on the system head loss curve representing 60 GPM at 60 feet of head which is typical of a newly constructed pool plumbed with 2" PVC pipe.
- Curve C = ~Medium head – Pump performance is based on the system head loss curve representing 86 GPM at 60 feet of head which is typical of a newly constructed pool plumbed with 2 ½" PVC pipe.

The input variables in this calculator; Filter type, Pipe size (suction and return), are offered as an aid to help determine whether the pool has head loss characteristics closer to that of a Curve A or Curve C system. These inputs may not represent actual performance based on these specific variables.

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