APPENDIX B:

ENERGY CONSUMPTION WORKSHEETS

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12090 Whittier Boulevard

Total Diesel Usage From Construction Equipment

Phase	Off-Road Equipment Type	Units	Hours	HP	Load Factor	Ave. Daily Factor	Number of Days	Diesel Usage (gallons)
Demolition	Concrete/Industrial Saws	1	8	33	0.73	0.6	31	179
Demolition	Rubber Tired Dozer	2	8	367	0.40	0.6	31	2,184
Demolition	Tractor/Loader/Backhoe	2	6	36	0.38	0.6	31	153
Grading	Graders	1	6	148	0.41	0.6	33	360
Grading	Rubber Tired Dozer	1	6	367	0.40	0.6	33	872
Grading	Tractor/Loader/Backhoe	1	7	84	0.37	0.6	33	215
Building Construction	Cranes	1	4	367	0.29	0.6	254	3,244
Building Construction	Forklifts	2	6	82	0.2	0.6	254	1,500
Building Construction	Tractor/Loader/Backhoe	2	8	84	0.37	0.6	254	3,789
Paving	Tractor/Loader/Backhoe	1	7	84	0.37	0.6	5	33
Paving	Cement and Mortar Mixers	4	6	10	0.56	0.6	5	20
Paving	Pavers	1	7	81	0.42	0.6	5	36
Paving	Rollers	1	7	36	0.38	0.6	5	14
Architectural Coating	Air Compressors	1	6	37	0.48	0.6	24	77
							TOTAL	**12,677**

Sources: Equipment usage (hours and total days), horsepower (HP) and load factors are per the CalEEMod Worksheets; Fuel rate calculation is per the SCAQMD Air Qulaity Handbook (1993) Table A9-3E.

Electricty Usage from Watering During Construction (AQMD Rule 403: Fugitive Dust)

Phase	Duration of Phase (days)	Watering Days	Ave. Daily Acreage Disturbed		Water Use (gallons)		Electricty (kWhr)
Demolition	33	33	1.43		142,514		1,386.23
Grading	33						
Building Construction	237				-		-
Paving	5						
Architectural Coating	22				-		-
	330					TOTAL	**1,386.23**

Notes:

1. Water Application Rate= 3,020 gal/acre/day per Air & Waste Management Association Air Pollution Engineering Manual (1992 Edition).
2. kWhr equivalent = 0.01 kWhr
3. Electricity consumption per water useage = 0.009727 kWhr/gallon.

Construction Worker, Vendor, and Hauling Gasoline and Diesel Consumption

Phase	Daily Trips		Days	Total Trips			Trip Length			Ave. Daily Factor	Gasoline Usage (gallons)	Diesel Usage (gallons)
	Worker	Vendor	Days	Worker	Vendor	Haul	Worker	Vendor	Haul			
Demolition	17.5	-	33	578	-	0.18	18.5	10.2	20	0.6	426	0
Grading	7.5	-	33	248	-	15.64	18.5	10.2	20	0.6	183	36
Building Construction	63.1	24.7	237	14,952	5,854	-	18.5	10.2	20	0.6	11,043	-
Paving	20.0	-	5	100	-	-	18.5	10.2	20	0.6	74	-
Architectural Coatings	12.6	-	22	277	-	-	18.5	10.2	20	0.6	205	-
TOTAL	**121**	**25**	**330**	**16,155**	**5,854**	**16**					**11,931**	**36**

Notes: Assumes an average fuel efficiency of 25.05 miles per gallon (mpg) for gasoline and 8.75 mpg for diesel per 2021 EMFAC Emissions Inventory (see attachment in this Appendix).

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12090 Whittier Boulevard - Existing Conditions (to be demolished)
Operational Fuel Calculations

Land Use	Units	Average Daily Trip Rate			Annual VMT
		Weekday	Sat	Sunday	
General Light Industry	480 sf	50	50	50	219,000
	TOTAL	**50**	**50**	**50**	**219,000**

Fleet Mix
LDA
LDT1
LDT2
LHD1
LHD2
MCY
MH
Motor Coach
OBUS
PTO
SBUS
T6
T7
T7IS
UBUS

	Fleet Factor	VMT	Fuel (gallons)
Diesel	0.03	6,570	**751**
Gas	0.91	199,290	**7,956**
		205,860	

Notes:

1. Assumes an average fuel efficiency of 25.05 miles per gallon (mpg) for gasoline and 8.75 mpg for diesel per 2021 EMFAC Emissions Inventory (see attachment in this Appendix).
2. CalEEMod Version 2022.1.1.29 provides trips/VMT for the existing uses.
3. Fleet Mix provided by EMFAC 2021 Inventory, Los Angeles County, 2025.

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12090 Whittier Boulevard - Project
Operational Fuel Calculations

Land Use	Units	Average Daily Trip Rate			Annual VMT
		Weekday	Sat	Sunday	
Self-Storage Building / Office	150,320 sf	265	262	261	902,705
VMT per CalEEMod		**265**	**262**	**261**	**902,705**

Fleet Mix
LDA
LDT1
LDT2
LHD1
LHD2
MCY
MH
Motor Coach
OBUS
PTO
SBUS
T6
T7
T7IS
UBUS

	Fleet Factor	VMT	Fuel (gallons)
Diesel	0.03	27,081	**3,095**
Gas	0.91	821,462	**32,793**
		848,543	

Notes:

1. Assumes an average fuel efficiency of 25.05 miles per gallon (mpg) for gasoline and 8.75 mpg for diesel per 2021 EMFAC Emissions Inventory (see attachment in this Appendix).
2. Fleet Mix provided by EMFAC 2021 Inventory, Los Angeles County, 2025.

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Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Trips	Energy Consumption	Fuel Consumption
Los Angeles	2025	HHDT	Aggregate	Aggregate	Gasoline	38.0500135	899706.1381	248946.627	0	216.9321942
Los Angeles	2025	HHDT	Aggregate	Aggregate	Diesel	55407.5353	2173518084	270164529	0	354395.8443
Los Angeles	2025	HHDT	Aggregate	Aggregate	Electricity	359.749838	12301228.26	1543164.64	21899466.58	0
Los Angeles	2025	HHDT	Aggregate	Aggregate	Natural Gas	5978.0662	117491455.3	11914868.2	0	19862.42567
Los Angeles	2025	LDA	Aggregate	Aggregate	Gasoline	3337440.43	45805469187	5376526416	0	1546599.468
Los Angeles	2025	LDA	Aggregate	Aggregate	Diesel	8388.61285	85632098.26	11929035.2	0	2100.294449
Los Angeles	2025	LDA	Aggregate	Aggregate	Electricity	196100.505	3320908342	338939059	1282144709	0
Los Angeles	2025	LDA	Aggregate	Aggregate	Plug-in Hybri	100470.495	1611810733	144159588	252908997.3	28223.9709
Los Angeles	2025	LDT1	Aggregate	Aggregate	Gasoline	313468.978	3971568856	479102144	0	160884.9298
Los Angeles	2025	LDT1	Aggregate	Aggregate	Diesel	110.665495	755037.9244	107740.453	0	32.67896484
Los Angeles	2025	LDT1	Aggregate	Aggregate	Electricity	1056.52352	15990856.43	1747944.03	6173790.381	0
Los Angeles	2025	LDT1	Aggregate	Aggregate	Plug-in Hybri	685.831959	12068166.98	984062.558	2066778.705	191.2925264
Los Angeles	2025	LDT2	Aggregate	Aggregate	Gasoline	1623396.82	23286161806	2651934455	0	955325.4151
Los Angeles	2025	LDT2	Aggregate	Aggregate	Diesel	5270.98259	78976809.68	8817249.8	0	2450.269959
Los Angeles	2025	LDT2	Aggregate	Aggregate	Electricity	14196.3527	178029466.7	25094976.7	68734067.71	0
Los Angeles	2025	LDT2	Aggregate	Aggregate	Plug-in Hybri	16561.6423	279387949.9	23763389.7	46152685.92	4648.664541
Los Angeles	2025	LHDT1	Aggregate	Aggregate	Gasoline	126376.075	1651360044	615680578	0	119373.9213
Los Angeles	2025	LHDT1	Aggregate	Aggregate	Diesel	60972.6654	877828509.5	250795733	0	42622.34301
Los Angeles	2025	LHDT1	Aggregate	Aggregate	Electricity	1424.20689	32592965.26	6510819.18	18210775.61	0
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Gasoline	19233.9933	235497620.3	93704414.1	0	19540.5219
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Diesel	27705.3982	391070132.8	113959191	0	22478.29446
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Electricity	367.730759	7993718.397	1594610.97	4469521.383	0
Los Angeles	2025	MCY	Aggregate	Aggregate	Gasoline	154401.152	350938143.8	107154399	0	8484.240529
Los Angeles	2025	MDV	Aggregate	Aggregate	Gasoline	972359.047	12925162908	1565546421	0	651811.1621
Los Angeles	2025	MDV	Aggregate	Aggregate	Diesel	11358.2037	153684679.7	18533700.7	0	6388.69007
Los Angeles	2025	MDV	Aggregate	Aggregate	Electricity	15380.3072	192741473.1	27182101.3	74414116.45	0
Los Angeles	2025	MDV	Aggregate	Aggregate	Plug-in Hybri	9911.01625	153862705.2	14220772.1	25187777.36	2623.622748
Los Angeles	2025	MH	Aggregate	Aggregate	Gasoline	15450.1108	50575711.66	505420.71	0	10439.00232
Los Angeles	2025	MH	Aggregate	Aggregate	Diesel	5805.20973	19950850.7	189830.358	0	2000.516639
Los Angeles	2025	MHDT	Aggregate	Aggregate	Gasoline	14498.9968	260016140.2	94861368.6	0	49847.1185
Los Angeles	2025	MHDT	Aggregate	Aggregate	Diesel	62117.6535	814222776.1	238097533	0	90927.29379
Los Angeles	2025	MHDT	Aggregate	Aggregate	Electricity	569.799512	10228237.33	2431572.42	10694759.85	0
Los Angeles	2025	MHDT	Aggregate	Aggregate	Natural Gas	941.455226	13809142.62	2516392.26	0	1695.512663
Los Angeles	2025	OBUS	Aggregate	Aggregate	Gasoline	3624.47843	46271420.97	23713570.6	0	9101.88076
Los Angeles	2025	OBUS	Aggregate	Aggregate	Diesel	2199.54429	49754997.14	8373032.27	0	7149.738362
Los Angeles	2025	OBUS	Aggregate	Aggregate	Electricity	19.4729066	475543.471	127403.75	500706.3378	0
Los Angeles	2025	OBUS	Aggregate	Aggregate	Natural Gas	344.247017	5934149.538	894629.147	0	679.53092
Los Angeles	2025	SBUS	Aggregate	Aggregate	Gasoline	1458.9836	21963772.16	1908350.54	0	2432.261483
Los Angeles	2025	SBUS	Aggregate	Aggregate	Diesel	1908.76968	12728858.32	9037948.11	0	1721.798892
Los Angeles	2025	SBUS	Aggregate	Aggregate	Electricity	27.9072784	289433.6738	99645.6389	334672.5455	0
Los Angeles	2025	SBUS	Aggregate	Aggregate	Natural Gas	1590.36292	12717198.45	7530304.8	0	3019.563573
Los Angeles	2025	UBUS	Aggregate	Aggregate	Gasoline	434.388786	10023196.98	568180.532	0	2172.514727
Los Angeles	2025	UBUS	Aggregate	Aggregate	Diesel	35.6276219	1944525.485	46600.9295	0	302.8644717
Los Angeles	2025	UBUS	Aggregate	Aggregate	Electricity	184.543617	5785036.043	241383.051	12180883.77	0
Los Angeles	2025	UBUS	Aggregate	Aggregate	Natural Gas	3841.04878	134816593	5024091.81	0	43757.95864

TOTAL	7193473.637	99395210266			**MPG**
GAS	0.915021287	88615908512		3536229.368	**25.05943458**
DSL	0.033541635	4660067360		532570.6274	**8.750139644**