
APPENDIX D6
Energy Data and Calculations

Phase 1 Construction Fuel Usage

Construction Equipment Fuel

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Phase Length	hp-hr	Energy Consumption Factor (hp-h)	gal/day	Total Gal
Demolition	Concrete/Industrial Saws	Diesel	Average	1	0.5	33	0.73	22	12.045	18.5	0.65	14.32
Demolition	Tractors/Loaders/Backhoe	Diesel	Average	1	0.5	84	0.37	22	15.54	18.5	0.84	18.48
Demolition	Off-Highway Trucks	Diesel	Average	1	0.5	376	0.38	22	71.44	18.5	3.86	84.96
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	22	1174.4	18.5	190.44	4189.75
Site Preparation	Tractors/Loaders/Backhoe	Diesel	Average	4	8	84	0.37	22	248.64	18.5	53.76	1182.72
Grading	Excavators	Diesel	Average	1	8	36	0.38	22	109.44	18.5	5.92	130.14
Grading	Graders	Diesel	Average	1	8	148	0.41	22	485.44	18.5	26.24	577.28
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	22	1174.4	18.5	63.48	1396.58
Grading	Tractors/Loaders/Backhoe	Diesel	Average	3	8	84	0.37	22	248.64	18.5	40.32	887.04
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	284	745.01	18.5	40.27	11436.91
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	284	131.2	18.5	21.28	6042.29
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	284	82.88	18.5	4.48	1272.32
Building Construction	Tractors/Loaders/Backhoe	Diesel	Average	3	7	84	0.37	284	217.56	18.5	35.28	10019.52
Building Construction	Welders	Diesel	Average	1	8	46	0.45	284	165.6	18.5	8.95	2542.18
Paving+ Landscaping	Pavers	Diesel	Average	2	8	81	0.42	77	272.16	18.5	29.42	2265.55
Paving+ Landscaping	Paving Equipment	Diesel	Average	2	8	89	0.36	77	256.32	18.5	27.71	2133.69
Paving+ Landscaping	Rollers	Diesel	Average	2	8	36	0.38	77	109.44	18.5	11.83	911.01
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	29	106.56	18.5	5.76	167.04
Utilities Trenching and Installation	Trenchers	Diesel	Average	1	8	40	0.5	32	160	18.5	8.65	276.76
<i>Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).</i>											Total	45,548.56

Construction Onroad Vehicles Fuel

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix	Phase Length	Daily VMT	Total VMT
Site Preparation					22		
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2	22	323.75	7122.5
Site Preparation	Vendor		10.2	HHDT,MHDT	22	0	0
Site Preparation	Hauling	0	20	HHDT	22	0	0
Site Preparation	Onsite truck			HHDT	22	0	0
Grading					22	0	0
Grading	Worker	15	18.5	LDA,LDT1,LDT2	22	277.5	6105
Grading	Vendor		10.2	HHDT,MHDT	22	0	0
Grading	Hauling	0	20	HHDT	22	0	0
Grading	Onsite truck			HHDT	22	0	0
Building Construction					284	0	0
Building Construction	Worker	52.8	18.5	LDA,LDT1,LDT2	284	976.8	27741.1
Building Construction	Vendor	27.0435	10.2	HHDT,MHDT	284	275.8437	78339.6
Building Construction	Hauling	0	20	HHDT	284	0	0
Building Construction	Onsite truck			HHDT	284	0	0
Paving+ Landscaping					77	0	0
Paving+ Landscaping	Worker	15	18.5	LDA,LDT1,LDT2	77	277.5	21367.5
Paving+ Landscaping	Vendor		10.2	HHDT,MHDT	77	0	0
Paving+ Landscaping	Hauling	0	20	HHDT	77	0	0
Paving+ Landscaping	Onsite truck			HHDT	77	0	0
Architectural Coating					29	0	0
Architectural Coating	Worker	10.56	18.5	LDA,LDT1,LDT2	29	195.36	5665.44
Architectural Coating	Vendor		10.2	HHDT,MHDT	29	0	0
Architectural Coating	Hauling	0	20	HHDT	29	0	0
Architectural Coating	Onsite truck			HHDT	29	0	0
Utilities Trenching and Installation					32	0	0
Utilities Trenching and Installation	Worker	2.5	18.5	LDA,LDT1,LDT2	32	46.25	1480
Utilities Trenching and Installation	Vendor		10.2	HHDT,MHDT	32	0	0
Utilities Trenching and Installation	Hauling	0	20	HHDT	32	0	0
Utilities Trenching and Installation	Onsite truck			HHDT	32	0	0
Demolition					22	0	0
Demolition	Worker	2	18.5	LDA,LDT1,LDT2	22	37	814
Demolition	Vendor		10.2	HHDT,MHDT	22	0	0
Demolition	Hauling	2	20	HHDT	22	40	880
Demolition	Onsite truck			HHDT	22	0	0

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).

Trip Type	VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
			1000 gal/yr	gal/yr			Total	Gasoline	Diesel
Workers	LDA	GAS	217260.2123	217260212	319966	6.866E+09	10,835	10,819	16
		DSL	228.7752292	228775.229		10166496			
	LDT1	GAS	17875.16354	17875163.5		464423847			
		DSL	0.893424783	893.424783		22616.671			
	LDT2	GAS	113596.7444	113596744		2.963E+09			
Vendors		DSL	271.624772	271624.772		9599506.6	11,592	432	11,160
	MHDT	GAS	4479.228797	4479228.8	24100030				
		DSL	23082.26798	23082268	209353541				
Hauling		GAS	11.59279434	11592.7943		51811.418	141	-	141
		DSL	92913.71423	92913714.2	78339.6	580722689			
	HHDT	GAS	11.59279434	11592.7943	880	51811.418			
Project Totals							22,568.00	11,251.00	11,317.00

County Fuel Consumption and County VMT from EMFAC2021 (v1.0.2) Emissions Inventory for San Bernardino (SC) 2027

Phase 2 Construction Fuel Usage

Construction Equipment Fuel

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Phase Length	hp-hr	Energy Consumption Factor (hp-	gal/day	Total Gal
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	49	1174.4	18.5	190.443	9331.718919
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	49	248.64	18.5	53.76	2634.24
Pad Grading	Graders	Diesel	Average	1	8	148	0.41	71	485.44	18.5	26.24	1863.04
Pad Grading	Excavators	Diesel	Average	2	8	36	0.38	71	109.44	18.5	11.8314	840.0259459
Pad Grading	Tractors/Loaders/Backhoes	Diesel	Average	2	8	84	0.37	71	248.64	18.5	26.88	1908.48
Pad Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	71	1174.4	18.5	63.4811	4507.156757
Pad Grading	Scrapers	Diesel	Average	2	8	423	0.48	71	1624.32	18.5	175.602	12467.75351
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	676	131.2	18.5	21.2757	14382.35676
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	676	82.88	18.5	4.48	3028.48
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	676	745.01	18.5	40.2708	27223.06811
Building Construction	Welders	Diesel	Average	1	8	46	0.45	676	165.6	18.5	8.95135	6051.113514
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	676	217.56	18.5	35.28	23849.28
Paving+ Landscaping	Pavers	Diesel	Average	2	8	81	0.42	151	272.16	18.5	29.4227	4442.828108
Paving+ Landscaping	Paving Equipment	Diesel	Average	2	8	89	0.36	151	256.32	18.5	27.7103	4184.250811
Paving+ Landscaping	Rollers	Diesel	Average	2	8	36	0.38	151	109.44	18.5	11.8314	1786.534054
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	45	106.56	18.5	5.76	259.2
Utilities Trenching and Installation	Trenchers	Diesel	Average	1	8	40	0.5	71	160	18.5	8.64865	614.0540541
<i>Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).</i>											Total	119,373.58

Construction Onroad Vehicles Fuel

Phase Name	Trip Type	One-Way Trips	Miles per Trip	Vehicle Mix	Phase Length	Daily VMT	Total VMT
Site Preparation					49		
Site Preparation	Worker	17.50	18.50	LDA,LDT1,LDT2	49	323.75	15863.8
Site Preparation	Vendor	0.00	10.20	HHDT,MHDT	49	0	0
Site Preparation	Hauling	0.00	20.00	HHDT	49	0	0
Site Preparation	Onsite truck	0.00		HHDT	49	0	0
Utilities Trenching and Installation					71	0	0
Utilities Trenching and Installation	Worker	2.50	18.50	LDA,LDT1,LDT2	71	46.25	3283.75
Utilities Trenching and Installation	Vendor		10.20	HHDT,MHDT	71	0	0
Utilities Trenching and Installation	Hauling	0.00	20.00	HHDT	71	0	0
Utilities Trenching and Installation	Onsite truck			HHDT	71	0	0
Building Construction					676	0	0
Building Construction	Worker	355.58	18.50	LDA,LDT1,LDT2	676	6578.304	4446934
Building Construction	Vendor	155.74	10.20	HHDT,MHDT	676	1588.525356	1073843
Building Construction	Hauling	0.00	20.00	HHDT	676	0	0
Building Construction	Onsite truck			HHDT	676	0	0
Architectural Coating					45	0	0
Architectural Coating	Worker	71.12	18.50	LDA,LDT1,LDT2	45	1315.6608	59204.7
Architectural Coating	Vendor		10.20	HHDT,MHDT	45	0	0
Architectural Coating	Hauling	0.00	20.00	HHDT	45	0	0
Architectural Coating	Onsite truck			HHDT	45	0	0
Paving+ Landscaping					151	0	0
Paving+ Landscaping	Worker	15.00	18.50	LDA,LDT1,LDT2	151	277.5	41902.5
Paving+ Landscaping	Vendor		10.20	HHDT,MHDT	151	0	0
Paving+ Landscaping	Hauling	0.00	20.00	HHDT	151	0	0
Paving+ Landscaping	Onsite truck			HHDT	151	0	0
Pad Grading					71	0	0
Pad Grading	Worker	20.00	18.50	LDA,LDT1,LDT2	71	370	26270
Pad Grading	Vendor		10.20	HHDT,MHDT	71	0	0
Pad Grading	Hauling	0.00	20.00	HHDT	71	0	0
Pad Grading	Onsite truck			HHDT	71	0	0

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).

Trip Type	VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)			
			1000 gal/yr	gal/yr			Total	Gasoline	Diesel	
Workers	LDA	GAS	217260.2123	217260212	4593458	6866310364	155,543	155,320	223	
		DSL	228.7752292	228775.229		10166496.3				
	LDT1	GAS	17875.16354	17875163.5		464423847				
		DSL	0.893424783	893.424783		22616.6706				
	LDT2	GAS	113596.7444	113596744		2962954848				
Vendors		DSL	271.624772	271624.772	9599506.56	1073843	24100029.7	158,904	5,923	152,981
	MHDT	GAS	4479.228797	4479228.8	209353541					
	HHDT	GAS	11.59279434	11592.7943	51811.4182					
Hauling		DSL	92913.71423	92913714.2	0	580722689	-	-	-	
	HHDT	GAS	11.59279434	11592.7943		51811.4182				
Project Totals							314,447.00	161,243.00	153,204.00	

County Fuel Consumption and County VMT from EMFAC2021 (v1.0.2) Emissions Inventory for San Bernardino (SC) 2027

Phase 3 Construction Fuel Usage

Construction Equipment Fuel

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Phase Length	hp-hr	Energy Consumption Factor (hp-	gal/day	Total Gal
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	24	1174.4	18.5	190.443	4570.6378
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	24	248.64	18.5	53.76	1290.24
Fine Grading	Excavators	Diesel	Average	1	8	36	0.38	31	109.44	18.5	5.91568	183.38595
Fine Grading	Graders	Diesel	Average	1	8	148	0.41	31	485.44	18.5	26.24	813.44
Fine Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	31	1174.4	18.5	63.4811	1967.9135
Fine Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	8	84	0.37	31	248.64	18.5	40.32	1249.92
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	232	745.01	18.5	40.2708	9342.8281
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	232	131.2	18.5	21.2757	4935.9568
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	232	82.88	18.5	4.48	1039.36
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	232	217.56	18.5	35.28	8184.96
Building Construction	Welders	Diesel	Average	1	8	46	0.45	232	165.6	18.5	8.95135	2076.7135
Paving+ landscaping	Cement and Mortar Mixers	Diesel	Average	2	6	10	0.56	44	33.6	18.5	3.63243	159.82703
Paving+ landscaping	Pavers	Diesel	Average	1	8	81	0.42	44	272.16	18.5	14.7114	647.29946
Paving+ landscaping	Paving Equipment	Diesel	Average	2	6	89	0.36	44	192.24	18.5	20.7827	914.43892
Paving+ landscaping	Rollers	Diesel	Average	2	6	36	0.38	44	82.08	18.5	8.87351	390.43459
Paving+ landscaping	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	44	248.64	18.5	13.44	591.36
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	21	106.56	18.5	5.76	120.96
Utilities Trenching and Installatio	Trenchers	Diesel	Average	1	8	40	0.5	30	160	18.5	8.64865	259.45946
<i>Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).</i>											Total	38,739.14

Construction Onroad Vehicles Fuel

Phase Name	Trip Type	One-Way Trips	Miles per Trip	Vehicle Mix	Phase Length	Daily VMT	Total VMT
Site Preparation					24		
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2	24	323.75	7770
Site Preparation	Vendor		10.2	HHDT,MHDT	24	0	0
Site Preparation	Hauling	0	20	HHDT	24	0	0
Site Preparation	Onsite truck			HHDT	24	0	0
Building Construction					232	0	0
Building Construction	Worker	26.56	18.5	LDA,LDT1,LDT2	232	491.36	113996
Building Construction	Vendor	13.604	10.2	HHDT,MHDT	232	138.75774	32191.8
Building Construction	Hauling	0	20	HHDT	232	0	0
Building Construction	Onsite truck			HHDT	232	0	0
Paving+ landscaping					44	0	0
Paving+ landscaping	Worker	20	18.5	LDA,LDT1,LDT2	44	370	16280
Paving+ landscaping	Vendor		10.2	HHDT,MHDT	44	0	0
Paving+ landscaping	Hauling	0	20	HHDT	44	0	0
Paving+ landscaping	Onsite truck			HHDT	44	0	0
Architectural Coating					21	0	0
Architectural Coating	Worker	5.312	18.5	LDA,LDT1,LDT2	21	98.272	2063.71
Architectural Coating	Vendor		10.2	HHDT,MHDT	21	0	0
Architectural Coating	Hauling	0	20	HHDT	21	0	0
Architectural Coating	Onsite truck			HHDT	21	0	0
Utilities Trenching and Installation					30	0	0
Utilities Trenching and Installatio	Worker	2.5	18.5	LDA,LDT1,LDT2	30	46.25	1387.5
Utilities Trenching and Installatio	Vendor		10.2	HHDT,MHDT	30	0	0
Utilities Trenching and Installatio	Hauling	0	20	HHDT	30	0	0
Utilities Trenching and Installatio	Onsite truck			HHDT	30	0	0
Fine Grading					31	0	0
Fine Grading	Worker	15	18.5	LDA,LDT1,LDT2	31	277.5	8602.5
Fine Grading	Vendor		10.2	HHDT,MHDT	31	0	0
Fine Grading	Hauling	0	20	HHDT	31	0	0
Fine Grading	Onsite truck			HHDT	31	0	0

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).

Trip Type	VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
			1000 gal/yr	gal/yr			Total	Gasoline	Diesel
Workers	LDA	GAS	217260.21	217260212	150099	6.866E+09	5,082	5,075	7
		DSL	228.77523	228775.229		10166496			
	LDT1	GAS	17875.164	17875163.5		464423847			
		DSL	0.8934248	893.424783		22616.671			
	LDT2	GAS	113596.74	113596744		2.963E+09			
Vendors		DSL	271.62477	271624.772	9599506.6	4,764	178	4,586	
	MHDT	GAS	4479.2288	4479228.8	24100030				
		DSL	23082.268	23082268	209353541				
	HHDT	GAS	11.592794	11592.7943	51811.418				
Hauling		DSL	92913.714	92913714.2	32191.8	580722689			
	HHDT	GAS	11.592794	11592.7943					
		DSL	92913.714	92913714.2	0	580722689	-	-	-
Project Totals							9,846.00	5,253.00	4,593.00

County Fuel Consumption and County VMT from EMFAC2021 (v1.0.2) Emissions Inventory for San Bernardino (SC) 2027

Phase 4 Construction Fuel Usage

Construction Equipment Fuel

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Phase Length	hp-hr	Energy Consumption Factor (hp-	gal/day	Total Gal
Site Preparation	Graders	Diesel	Average	1	8	148	0.41	44	485.44	18.5	26.24	1154.56
Site Preparation	Scrapers	Diesel	Average	1	8	423	0.48	44	1624.32	18.5	87.8011	3863.247568
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1	7	84	0.37	44	217.56	18.5	11.76	517.44
Fine Grading	Graders	Diesel	Average	1	8	148	0.41	31	485.44	18.5	26.24	813.44
Fine Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	31	1174.4	18.5	63.4811	1967.913514
Fine Grading	Tractors/Loaders/Backhoes	Diesel	Average	2	7	84	0.37	31	217.56	18.5	23.52	729.12
Building Construction	Cranes	Diesel	Average	1	8	367	0.29	425	851.44	18.5	46.0238	19560.10811
Building Construction	Forklifts	Diesel	Average	2	7	82	0.2	425	114.8	18.5	12.4108	5274.594595
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	425	82.88	18.5	4.48	1904
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1	6	84	0.37	425	186.48	18.5	10.08	4284
Building Construction	Welders	Diesel	Average	3	8	46	0.45	425	165.6	18.5	26.8541	11412.97297
Paving+Landscaping	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	44	248.64	18.5	13.44	591.36
Paving+Landscaping	Pavers	Diesel	Average	1	8	81	0.42	44	272.16	18.5	14.7114	647.2994595
Paving+Landscaping	Paving Equipment	Diesel	Average	1	8	89	0.36	44	256.32	18.5	13.8551	609.6259459
Paving+Landscaping	Rollers	Diesel	Average	2	8	36	0.38	44	109.44	18.5	11.8314	520.5794595
Paving+Landscaping	Cement and Mortar Mixers	Diesel	Average	1	8	10	0.56	44	44.8	18.5	2.42162	106.5513514
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	35	106.56	18.5	5.76	201.6
Utilities Trenching and Installatio	Trenchers	Diesel	Average	1	8	40	0.5	32	160	18.5	8.64865	276.7567568
<i>Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).</i>											Total	54,435.17

Construction Onroad Vehicles Fuel

Phase Name	Trip Type	One-Way Trips	Miles per Trip	Vehicle Mix	Phase Length	Daily VMT	Total VMT
Site Preparation					44		
Site Preparation	Worker	7.5	18.5	LDA,LDT1,LDT2	44	138.75	6105
Site Preparation	Vendor		10.2	HHDT,MHDT	44	0	0
Site Preparation	Hauling	0	20	HHDT	44	0	0
Site Preparation	Onsite truck			HHDT	44	0	0
Building Construction					425	0	0
Building Construction	Worker	57.6	18.5	LDA,LDT1,LDT2	425	1065.6	452880
Building Construction	Vendor	29.502	10.2	HHDT,MHDT	425	300.9204	127891
Building Construction	Hauling	0	20	HHDT	425	0	0
Building Construction	Onsite truck			HHDT	425	0	0
Paving+Landscaping					44	0	0
Paving+Landscaping	Worker	15	18.5	LDA,LDT1,LDT2	44	277.5	12210
Paving+Landscaping	Vendor		10.2	HHDT,MHDT	44	0	0
Paving+Landscaping	Hauling	0	20	HHDT	44	0	0
Paving+Landscaping	Onsite truck			HHDT	44	0	0
Architectural Coating					35	0	0
Architectural Coating	Worker	11.52	18.5	LDA,LDT1,LDT2	35	213.12	7459.2
Architectural Coating	Vendor		10.2	HHDT,MHDT	35	0	0
Architectural Coating	Hauling	0	20	HHDT	35	0	0
Architectural Coating	Onsite truck			HHDT	35	0	0
Utilities Trenching and Installation					32	0	0
Utilities Trenching and Installation	Worker	2.5	18.5	LDA,LDT1,LDT2	32	46.25	1480
Utilities Trenching and Installation	Vendor		10.2	HHDT,MHDT	32	0	0
Utilities Trenching and Installation	Hauling	0	20	HHDT	32	0	0
Utilities Trenching and Installation	Onsite truck			HHDT	32	0	0
Fine Grading					31	0	0
Fine Grading	Worker	10	18.5	LDA,LDT1,LDT2	31	185	5735
Fine Grading	Vendor		10.2	HHDT,MHDT	31	0	0
Fine Grading	Hauling	0	20	HHDT	31	0	0
Fine Grading	Onsite truck			HHDT	31	0	0

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022).

Trip Type	VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)			
			1000 gal/yr	gal/yr			Total	Gasoline	Diesel	
Workers	LDA	GAS	217260.2123	217260212	485869	6.866E+09	16,453	16,429	24	
		DSL	228.7752292	228775.229		10166496				
	LDT1	GAS	17875.16354	17875163.5		464423847				
		DSL	0.893424783	893.424783		22616.671				
	LDT2	GAS	113596.7444	113596744		2.963E+09				
		DSL	271.624772	271624.772		9599506.6				
Vendors	MHDT	GAS	4479.228797	4479228.8	127891	24100030	18,925	705	18,220	
		DSL	23082.26798	23082268		209353541				
	HHDT	GAS	11.59279434	11592.7943		51811.418				
Hauling		DSL	92913.71423	92913714.2	0	580722689				
	HHDT	GAS	11.59279434	11592.7943		51811.418				
		DSL	92913.71423	92913714.2		580722689				
Project Totals							#####	17,134.00	18,244.00	

County Fuel Consumption and County VMT from EMFAC2021 (v1.0.2) Emissions Inventory for San Bernardino (SC) 2027

EMFAC2021 (v1.0.2) Emissions Inventory - Phase 1

Region Type: South Coast Air Basin
 Region: San Bernardino (SC)
 Calendar Year: 2050
 Vehicle Classification: EMFAC2007 Categories
 San Bernardino County value: 14,659,396,563 VMT/Year
 Project value: 10,024,528 VMT/Year

VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
		1000 gallons/year	gallons/year			Total	Gasoline	Diesel
LDA	GAS	187705.644	187705643.96	4944602.11	6975568126	133,029	132,978	51
	DSL	72.11267279	72112.67		4030132.241			
LDT1	GAS	13259.58738	13259587.38	366198.65	426807465.4	11,377	11,377	0
	DSL	0.171109658	171.11		5111.016262			
LDT2	GAS	116678.726	116678726.01	2197684.24	3619186001	70,788	70,581	207
	DSL	342.7506076	342750.61		13843866.32			
MDV	GAS	84684.72513	84684725.13	1523044.05	2172784326	59,252	58,725	527
	DSL	760.0457097	760045.71		23527066.83			
LHDT1	GAS	6845.296772	6845296.77	278684.88	118227411	14,778	9,687	5,091
	DSL	3597.848284	3597848.28		78704738.37			
LHDT2	GAS	920.5947266	920594.73	76664.07	14100058.83	4,355	1,370	2,985
	DSL	2005.127779	2005127.78		37397920.44			
MHDT	GAS	1753.779832	1753779.83	184927.25	10732593.31	18,844	1,622	17,222
	DSL	18617.42673	18617426.73		189181355.1			
HHDT	GAS	7.00678751	7006.79	189113.53	37336.47685	25,121	1	25,120
	DSL	121190.2523	121190252.28		912331274.6			
OBUS	GAS	267.6913787	267691.38	5866.39	1591141.138	769	243	526
	DSL	580.0838741	580083.87		4881744.562			
UBUS	GAS	169.8896312	169889.63	3054.64	2696983.468	192	192	0
	DSL	0	0.00		0			
MCY	GAS	983.924801	983924.80	205593.07	43352222.14	4,511	4,511	0
SBUS	GAS	145.2770266	145277.03	10813.95	1487813.277	1,133	699	434
	DSL	90.30432231	90304.32		760548.8013			
MH	GAS	1066.580776	1066580.78	38281.08	5214166.229	6,368	5,003	1,365
	DSL	291.0378454	291037.85		2947161.018			
Project Totals				10,024,528	14,659,396,563	350,517	296,989	53,528

Source: Calculated by UltraSystems with CalEEMod (2022.1.1.29) (CAPCOA, 2022).
 Calculated by Ultrasystems with California Air Resources Board - Emission FACTor (EMFAC2021 v1.0.2) webtool.

Gasoline 296,989.00 Diesel 53,528.00

EMFAC2021 (v1.0.2) Emissions Inventory - Phase 2

Region Type: South Coast Air Basin
 Region: San Bernardino (SC)
 Calendar Year: 2050
 Vehicle Classification: EMFAC2007 Categories
 San Bernardino County value: 14,659,396,563 VMT/Year
 Project value: 13,419,687 VMT/Year

VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
		1000 gallons/year	gallons/year			Total	Gasoline	Diesel
LDA	GAS	187705.644	187705643.96	6385462.72	6975568126	171,793	171,727	66
	DSL	72.11267279	72112.67		4030132.241			
LDT1	GAS	13259.58738	13259587.38	417875.05	426807465.4	12,982	12,982	0
	DSL	0.171109658	171.11		5111.016262			
LDT2	GAS	116678.726	116678726.01	3218829.30	3619186001	103,680	103,376	304
	DSL	342.7506076	342750.61		13843866.32			
MDV	GAS	84684.72513	84684725.13	2041342.12	2172784326	79,415	78,709	706
	DSL	760.0457097	760045.71		23527066.83			
LHDT1	GAS	6845.296772	6845296.77	362964.91	118227411	19,248	12,617	6,631
	DSL	3597.848284	3597848.28		78704738.37			
LHDT2	GAS	920.5947266	920594.73	97723.37	14100058.83	5,552	1,747	3,805
	DSL	2005.127779	2005127.78		37397920.44			
MHDT	GAS	1753.779832	1753779.83	285144.61	10732593.31	29,056	2,501	26,555
	DSL	18617.42673	18617426.73		189181355.1			
HHDT	GAS	7.00678751	7006.79	289029.38	37336.47685	38,394	2	38,392
	DSL	121190.2523	121190252.28		912331274.6			
OBUS	GAS	267.6913787	267691.38	6879.20	1591141.138	900	284	616
	DSL	580.0838741	580083.87		4881744.562			
UBUS	GAS	169.8896312	169889.63	4422.10	2696983.468	279	279	0
	DSL	0	0.00		0			
MCY	GAS	983.924801	983924.80	261938.64	43352222.14	5,748	5,748	0
SBUS	GAS	145.2770266	145277.03	12971.87	1487813.277	1,359	838	521
	DSL	90.30432231	90304.32		760548.8013			
MH	GAS	1066.580776	1066580.78	35103.59	5214166.229	5,840	4,588	1,252
	DSL	291.0378454	291037.85		2947161.018			
Project Totals				13,419,687	14,659,396,563	474,246	395,398	78,848

Source: Calculated by UltraSystems with CalEEMod (2022.1.1.29) (CAPCOA, 2022).
 Calculated by Ultrasystems with California Air Resources Board - Emission FACTor (EMFAC2021 v1.0.2) webtool.

Gasoline 395,398.00 Diesel 78,848.00

EMFAC2021 (v1.0.2) Emissions Inventory - Phase 3

Region Type: South Coast Air Basin
 Region: San Bernardino (SC)
 Calendar Year: 2050
 Vehicle Classification: EMFAC2007 Categories
 San Bernardino County value: 14,659,396,563 VMT/Year
 Project value: 7,879,360 VMT/Year

VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
		1000 gallons/year	gallons/year			Total	Gasoline	Diesel
LDA	GAS	187705.644	187705643.96	3713522.92	6975568126	99,908	99,870	38
	DSL	72.11267279	72112.67		4030132.241			
LDT1	GAS	13259.58738	13259587.38	234606.75	426807465.4	7,288	7,288	0
	DSL	0.171109658	171.11		5111.016262			
LDT2	GAS	116678.726	116678726.01	1909623.22	3619186001	61,510	61,330	180
	DSL	342.7506076	342750.61		13843866.32			
MDV	GAS	84684.72513	84684725.13	1196459.10	2172784326	46,547	46,133	414
	DSL	760.0457097	760045.71		23527066.83			
LHDT1	GAS	6845.296772	6845296.77	211628.61	118227411	11,222	7,356	3,866
	DSL	3597.848284	3597848.28		78704738.37			
LHDT2	GAS	920.5947266	920594.73	56742.87	14100058.83	3,223	1,014	2,209
	DSL	2005.127779	2005127.78		37397920.44			
MHDT	GAS	1753.779832	1753779.83	185512.26	10732593.31	18,903	1,627	17,276
	DSL	18617.42673	18617426.73		189181355.1			
HHDT	GAS	7.00678751	7006.79	187947.02	37336.47685	24,966	1	24,965
	DSL	121190.2523	121190252.28		912331274.6			
OBUS	GAS	267.6913787	267691.38	3884.47	1591141.138	509	161	348
	DSL	580.0838741	580083.87		4881744.562			
UBUS	GAS	169.8896312	169889.63	3026.71	2696983.468	191	191	0
	DSL	0	0.00		0			
MCY	GAS	983.924801	983924.80	151560.53	43352222.14	3,326	3,326	0
SBUS	GAS	145.2770266	145277.03	7137.19	1487813.277	748	461	287
	DSL	90.30432231	90304.32		760548.8013			
MH	GAS	1066.580776	1066580.78	17708.46	5214166.229	2,945	2,314	631
	DSL	291.0378454	291037.85		2947161.018			
Project Totals				7,879,360	14,659,396,563	281,286	231,072	50,214

Source: Calculated by UltraSystems with CalEEMod (2022.1.1.29) (CAPCOA, 2022).
 Calculated by Ultrasystems with California Air Resources Board - Emission FACTor (EMFAC2021 v1.0.2) webtool.

Gasoline 231,072.00 Diesel 50,214.00

EMFAC2021 (v1.0.2) Emissions Inventory - Phase 4

Region Type: South Coast Air Basin
 Region: San Bernardino (SC)
 Calendar Year: 2050
 Vehicle Classification: EMFAC2007 Categories
 San Bernardino County value: 14,659,396,563 VMT/Year
 Project value: 6,804,348 VMT/Year

VehClass	Fuel Type	County Fuel Consumption		Project VMT	County VMT	Project Fuel Consumption (gal/yr)		
		1000 gallons/year	gallons/year			Total	Gasoline	Diesel
LDA	GAS	187705.644	187705643.96	3191391.18	6975568126	85,861	85,828	33
	DSL	72.11267279	72112.67		4030132.241			
LDT1	GAS	13259.58738	13259587.38	200577.08	426807465.4	6,231	6,231	0
	DSL	0.171109658	171.11		5111.016262			
LDT2	GAS	116678.726	116678726.01	1651890.56	3619186001	53,208	53,052	156
	DSL	342.7506076	342750.61		13843866.32			
MDV	GAS	84684.72513	84684725.13	1021826.67	2172784326	39,753	39,399	354
	DSL	760.0457097	760045.71		23527066.83			
LHDT1	GAS	6845.296772	6845296.77	181065.32	118227411	9,602	6,294	3,308
	DSL	3597.848284	3597848.28		78704738.37			
LHDT2	GAS	920.5947266	920594.73	48457.00	14100058.83	2,753	866	1,887
	DSL	2005.127779	2005127.78		37397920.44			
MHDT	GAS	1753.779832	1753779.83	177234.38	10732593.31	18,060	1,555	16,505
	DSL	18617.42673	18617426.73		189181355.1			
HHDT	GAS	7.00678751	7006.79	179006.28	37336.47685	23,778	1	23,777
	DSL	121190.2523	121190252.28		912331274.6			
OBUS	GAS	267.6913787	267691.38	3210.66	1591141.138	421	133	288
	DSL	580.0838741	580083.87		4881744.562			
UBUS	GAS	169.8896312	169889.63	2918.57	2696983.468	184	184	0
	DSL	0	0.00		0			
MCY	GAS	983.924801	983924.80	127056.30	43352222.14	2,788	2,788	0
SBUS	GAS	145.2770266	145277.03	5499.96	1487813.277	576	355	221
	DSL	90.30432231	90304.32		760548.8013			
MH	GAS	1066.580776	1066580.78	14214.13	5214166.229	2,365	1,858	507
	DSL	291.0378454	291037.85		2947161.018			
Project Totals				6,804,348	14,659,396,563	245,580	198,544	47,036

Source: Calculated by UltraSystems with CalEEMod (2022.1.1.29) (CAPCOA, 2022).
 Calculated by Ultrasystems with California Air Resources Board - Emission FACTor (EMFAC2021 v1.0.2) webtool.

Gasoline 198,544.00 Diesel 47,036.00