

## Energy Use Summary

<b>Construction Phase (gallons/construction period)</b>	<b>Gasoline</b>	<b>Diesel</b>		
Construction Vehicles	59,671	71,430		
Worker Trips	57,735	274		
Vendor Trips	1,253	21		
Haul Trucks	22	18,937		
<b>Total</b>	<b>118,682</b>	<b>90,662</b>		

  

<b>Operations Phase (gallons/year)</b>	<b>Gasoline</b>	<b>Diesel</b>	<b>Natural Gas (kBTU/yr)</b>	<b>Electricity (kWh/yr)</b>
Apartments Mid Rise	10,442	216	952,480	419,906
Congregate Care (Assisted Living)	14,755	305	952,476	419,904
Enclosed Parking with Elevator	0	0	0	2,257,940
High Turnover (Sit Down Restaurant)	40,932	700	2,081,700	513,630
Medical Office Building	145,501	3,006	1,556,810	2,067,190
	0	0	0	0
All Land Uses	211,629	4,226	5,543,466	5,678,570

## Operations Onroad Energy Use

Year **2026**

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	34.4	53.9		6,890,013	71,374	232,749	6,961,387
LDT1	29.3	24.3		820,893	277	13,403	821,171
LDT2	28.2	39.6		2,406,087	19,279	50,413	2,425,365
LHDT1	11.1	22.9		173,057	143,072		316,129
LHDT2	9.6	20.7		30,381	57,538		87,918
MCY	36.2			330,653			330,653
MDV	22.8	30.5		1,623,219	43,701	32,680	1,666,920
MH	5.5	11.1		33,697	14,107		47,804
MHDT	5.4	11.7		26,201	137,838		164,039
HHDT	4.6	7.5		74	116,234		116,307
OBUS	5.4	9.2		5,959	4,901		10,860
SBUS	9.5	8.0		3,247	6,784		10,032
UBUS	5.5	5.7		975	6	16	981

Trips/Day	Trips/day	Trips/day	Trips/day	Total	VMT/day	VMT/day	VMT/day	Trip Length
Land Use	Weekday	Saturday	Sunday	Weekly	Weekday	Saturday	Sunday	
Apartments Mid Rise	281.20	253.65	211.85	1871.5	967	873	729	3.44
Congregate Care (Assisted Living)	360	406	437	2644.5	1,240	1,396	1,503	3.44
Enclosed Parking with Elevator								
High Turnover (Sit Down Restaurant)	996	1,087	1,267	7336.05	3,428	3,740	4,358	3.44
Medical Office Building	4,729	1,164	193	25004.09	16,269	4,005	665	3.44
<b>Total</b>	<b>6,367</b>	<b>2,911</b>	<b>2,109</b>					

Fleet Mix	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	MCY	SBUS	MH	Total
Apartments Mid Rise	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Congregate Care (Assisted Living)	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Enclosed Parking with Elevator	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
High Turnover (Sit Down Restaurant)	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Medical Office Building	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%

Vehicle Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Weekday Trips															
Apartments Mid Rise	206	23	23	20	0	0	0	0	0	0	7	0	1	281	967.33
Congregate Care (Assisted Living)	264	29	29	25	0	0	0	0	0	0	9	0	1	360	1,239.57
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	731	80	80	70	1	1	1	1	1	1	26	1	3	996	3,427.58
Medical Office Building	0	360	360	333	4	4	4	4	4	3	121	4	16	4,729	16,268.86
<b>Total</b>	<b>4673</b>	<b>512</b>	<b>512</b>	<b>448</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>163</b>	<b>5</b>	<b>21</b>	<b>6,367</b>	

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Weekday Trips															
Apartments Mid Rise	186	20	20	18	0	0	0	0	0	0	6	0	1	254	872.56
Congregate Care (Assisted Living)	298	33	33	29	0	0	0	0	0	0	10	0	1	406	1,396.36
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	798	87	87	77	1	1	1	1	1	1	28	1	4	1,087	3,739.86
Medical Office Building	854	94	94	82	1	1	1	1	1	1	30	1	4	1,164	4,004.88
<b>Total</b>	<b>2196</b>	<b>234</b>	<b>234</b>	<b>205</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>75</b>	<b>2</b>	<b>10</b>	<b>2,911</b>	

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Weekday Trips															
Apartments Mid Rise	155	17	17	15	0	0	0	0	0	0	5	0	1	212	728.76
Congregate Care (Assisted Living)	321	35	35	31	0	0	0	0	0	0	11	0	1	437	1,502.87
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	930	102	102	89	1	1	1	1	1	1	32	1	4	1,267	4,358.24
Medical Office Building	142	16	16	14	0	0	0	0	0	0	5	0	1	193	664.88
<b>Total</b>	<b>1548</b>	<b>170</b>	<b>170</b>	<b>148</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>54</b>	<b>2</b>	<b>7</b>	<b>2,109</b>	

Gallons of Fuel	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
Gasoline														
Apartments Mid Rise	7,075	920	947	1,008	15	11	11	11	32	36	237	8	144	10,442
Congregate Care (Assisted Living)	9,997	1,300	1,339	1,424	21	15	13	0	45	51	335	12	203	14,755
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Turnover (Sit Down Restaurant)	27,733	3,606	3,714	3,950	59	43	35	0	126	141	930	32	564	40,932
Medical Office Building	96,582	12,820	13,201	14,043	209	152	125	1	447	500	3,305	113	2,004	145,501
<b>Total</b>	<b>143,386</b>	<b>18,646</b>	<b>19,200</b>	<b>20,425</b>	<b>303</b>	<b>220</b>	<b>182</b>	<b>1</b>	<b>651</b>	<b>728</b>	<b>4,807</b>	<b>165</b>	<b>2,915</b>	<b>211,629</b> Total Gallons

Diesel	LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
Gasoline														
Apartments Mid Rise	47	0	5	20	6	10	22	40	15	0	0	20	30	216
Congregate Care (Assisted Living)	66	1	8	29	8	14	31	57	22	0	0	29	42	305
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Turnover (Sit Down Restaurant)	151	1	18	66	19	31	70	130	50	1	0	65	96	700
Medical Office Building	651	5	75	283	83	133	303	560	214	3	0	281	414	3,006
<b>Total</b>	<b>915</b>	<b>7</b>	<b>106</b>	<b>397</b>	<b>117</b>	<b>188</b>	<b>425</b>	<b>788</b>	<b>302</b>	<b>4</b>	<b>0</b>	<b>395</b>	<b>582</b>	<b>4,226</b> Total Gallons

**215,856** Total Gallons

**31** Average MPC

# Utilities

	<b>Natural Gas Use</b>	<b>Electricity Use</b>
Land Use	kBTU/yr	kWh/yr
Apartments Mid Rise	952,480	419,906
Congregate Care (Assisted Living)	952,476	419,904
Enclosed Parking with Elevator	0	2,257,940
High Turnover (Sit Down Restaurant)	2,081,700	513,630
Medical Office Building	1,556,810	2,067,190
	0	
<b>Total</b>	<b>5,543,466</b>	<b>5,678,570</b>

# Offroad Construction Equipment Energy Use

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitA	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate		Total Fuel Consumption (gal/construction period)
		mount							(gal/hour)	Fuel Type	
Demolition	Concrete/Industrial Saws	0	8	81	0.73	100	66	2023	4.7	Gasoline	0
Demolition	Excavators	1	12	158	0.38	175	66	2023	2.9	Diesel	868
Demolition	Off-Highway Trucks	1	12	402	0.38	300	66	2023	4.1	Diesel	1,247
Demolition	Rubber Tired Dozers	0	8	247	0.4	300	66	2023	4.5	Diesel	0
Demolition	Tractors/Loaders/Backhoes	2	12	97	0.37	100	66	2023	1.6	Diesel	933
Site Preparation	Excavators	1	12	158	0.38	175	26	2023	2.9	Diesel	342
Site Preparation	Graders	0	8	187	0.41	175	26	2023	3.2	Diesel	0
Site Preparation	Off-Highway Trucks	1	12	402	0.38	300	26	2023	4.1	Diesel	491
Site Preparation	Rubber Tired Dozers	0	7	247	0.4	300	26	2023	4.5	Diesel	0
Site Preparation	Tractors/Loaders/Backhoes	2	12	97	0.37	100	26	2023	1.6	Diesel	368
Grading	Bore/Drill Rigs	2	12	221	0.5	100	108	2023	2.2	Diesel	2,825
Grading	Cranes	2	12	231	0.29	300	108	2023	3.3	Diesel	2,464
Grading	Excavators	1	12	158	0.38	175	108	2023	2.9	Diesel	1,421
Grading	Generator Sets	1	12	84	0.74	100	108	2023	5.2	Gasoline	4,982
Grading	Graders	0	8	187	0.41	175	108	2023	3.2	Diesel	0
Grading	Plate Compactors	1	12	8	0.43	25	108	2023	0.3	Gasoline	174
Grading	Rubber Tired Dozers	0	8	247	0.4	300	108	2023	4.5	Diesel	0
Grading	Tractors/Loaders/Backhoes	2	12	97	0.37	100	108	2023	1.6	Diesel	1,527
Building Construction	Air Compressors	2	12	78	0.48	100	640	2023	1.3	Diesel	9,763
Building Construction	Cranes	1	12	231	0.29	300	640	2023	3.3	Diesel	7,300
Building Construction	Excavators	1	12	158	0.38	175	640	2023	2.9	Diesel	8,422
Building Construction	Forklifts	0	6	89	0.2	100	640	2023	2.0	Diesel	0
Building Construction	Generator Sets	1	12	84	0.74	100	640	2023	5.2	Gasoline	29,522
Building Construction	Pumps	3	12	84	0.74	100	640	2023	1.3	Diesel	22,860
Building Construction	Skid Steer Loaders	2	12	65	0.37	50	640	2023	0.9	Diesel	5,264
Building Construction	Tractors/Loaders/Backhoes	1	12	97	0.37	100	640	2023	1.6	Diesel	4,525
Building Construction	Welders	3	12	46	0.45	50	640	2023	2.4	Gasoline	24,994
Architectural Coating	Air Compressors	2	12	78	0.48	100	53	2023	1.3	Diesel	808
									<b>Total</b>	<b>Gasoline</b>	<b>59,671</b>
									<b>Total</b>	<b>Diesel</b>	<b>71,430</b>

## Onroad Construction Energy Use

Year **2023**

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	31.7	50.0		6,635,002	62,493	150,700	6,697,495
LDT1	27.2	22.9		758,468	361	7,123	758,828
LDT2	25.5	36.7		2,285,150	15,595	28,810	2,300,745
LHDT1	10.7	21.9		174,910	125,545		300,455
LHDT2	9.3	19.8		30,103	50,003		80,106
MCY	36.4			305,045			305,045
MDV	20.7	28.1		1,589,863	36,128	16,377	1,625,991
MH	5.2	10.7		34,680	13,123		47,802
MHDT	5.1	11.2		25,624	122,124		147,749
HHDT	4.3	7.1		75	109,819		109,894
OBUS	5.1	8.7		5,955	4,287		10,242
SBUS	9.2	7.7		2,784	6,672		9,455
UBUS	5.1	5.9		958	13	16	971

### Input

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	10	0	600	14.7	6.9	5
Site Preparation	10	0	60	14.7	6.9	5
Grading	23	0	26400	14.7	6.9	5
Building Construction	150	6	0	14.7	6.9	5
Architectural Coating	30	0	0	14.7	6.9	5

### Adjusted

Demolition	660	0	600	14.7	6.9	5
Site Preparation	260	0	60	14.7	6.9	5
Grading	2484	0	26400	14.7	6.9	5
Building Construction	96000	3840	0	14.7	6.9	5
Architectural Coating	1590	0	0	14.7	6.9	5

### Total

Gasoline Consumption			Diesel Consumption		
Worker	Vendor	Haul	Worker	Vendor	Haul
377	0	0	2	0	420
149	0	0	1	0	42
1,420	0	21	7	0	18,475
54,880	1,253	0	261	21	0
909	0	0	4	0	0
0	0	0	0	0	0
<b>57,735</b>	<b>1,253</b>	<b>22</b>	<b>274</b>	<b>21</b>	<b>18,937</b>

## Energy Use Summary

<b>Construction Phase (gallons/construction period)</b>		<b>Gasoline</b>	<b>Diesel</b>		
Construction Vehicles		59,671	71,430		
Worker Trips		57,016	271		
Vendor Trips		1,253	21		
Haul Trucks		17	14,969		
<b>Total</b>		<b>117,958</b>	<b>86,691</b>		
<b>Operations Phase (gallons/year)</b>		<b>Gasoline</b>	<b>Diesel</b>	<b>Natural Gas (kBTU/yr)</b>	<b>Electricity (kWh/yr)</b>
Apartments Mid Rise		8,766	181	952,487	419,904
Condo/Townhouse High Rise		27,288	564	2,078,920	1,068,120
Congregate Care (Assisted Living)		12,653	261	952,476	419,904
Enclosed Parking with Elevator		0	0	0	2,257,940
High Turnover (Sit Down Restaurant)		29,039	600	513,600	1,351,860
	0	0	0	0	0
<b>All Land Uses</b>		<b>77,747</b>	<b>1,606</b>	<b>4,497,483</b>	<b>5,517,728</b>

## Operations Onroad Energy Use

Year **2026**

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	34.4	53.9		6,890,013	71,374	232,749	6,961,387
LDT1	29.3	24.3		820,893	277	13,403	821,171
LDT2	28.2	39.6		2,406,087	19,279	50,413	2,425,365
LHDT1	11.1	22.9		173,057	143,072		316,129
LHDT2	9.6	20.7		30,381	57,538		87,918
MCY	36.2			330,653			330,653
MDV	22.8	30.5		1,623,219	43,701	32,680	1,666,920
MH	5.5	11.1		33,697	14,107		47,804
MHDT	5.4	11.7		26,201	137,838		164,039
HHDT	4.6	7.5		74	116,234		116,307
OBUS	5.4	9.2		5,959	4,901		10,860
SBUS	9.5	8.0		3,247	6,784		10,032
UBUS	5.5	5.7		975	6	16	981

Trips/Day	Trips/day	Trips/day	Trips/day	Total	VMT/day	VMT/day	VMT/day	Trip Length
Land Use	Weekday	Saturday	Sunday	Weekly	Weekday	Saturday	Sunday	
Apartments Mid Rise	275.28	248.31	207.39	733	612	2,900	2,900	2.95
Condo/Townhouse High Rise	857	774	644	5703.15	2,528	1,900	2,900	2.95
Congregate Care (Assisted Living)	360	406	437	2844.5	1,063	1,197	1,289	2.95
Enclosed Parking with Elevator								
High Turnover (Sit Down Restaurant)	996	1,087	1,267	7336.05	2,939	3,207	3,737	2.95
<b>Total</b>	<b>2,489</b>	<b>2,516</b>	<b>2,555</b>					

Fleet Mix	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	MCY	SBUS	MH	Total
Apartments Mid Rise	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Condo/Townhouse High Rise	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Congregate Care (Assisted Living)	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
Enclosed Parking with Elevator	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	100.0%
High Turnover (Sit Down Restaurant)	0.733946	0.080432	0.080432	0.070378	0.000905	0.000905	0.000905	0.000905	0.000938	0.000594	0.025612	0.000712	0.003336	0.0%

Vehicle Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise	202	22	22	19	0	0	0	0	0	0	7	0	1	275	812.08
Condo/Townhouse High Rise	629	69	69	60	1	1	1	1	1	1	22	1	3	857	2,528.00
Congregate Care (Assisted Living)	264	29	29	25	0	0	0	0	0	0	9	0	1	360	1,063.00
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	731	80	80	70	1	1	1	1	1	1	26	1	3	996	2,939.35
<b>Total</b>	<b>1827</b>	<b>200</b>	<b>200</b>	<b>175</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>64</b>	<b>2</b>	<b>8</b>	<b>2,489</b>	

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise	182	20	20	17	0	0	0	0	0	0	6	0	1	248	732.51
Condo/Townhouse High Rise	568	62	62	54	1	1	1	1	1	1	20	1	3	774	2,283.92
Congregate Care (Assisted Living)	298	33	33	29	0	0	0	0	0	0	10	0	1	406	1,197.46
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	798	87	87	77	1	1	1	1	1	1	28	1	4	1,087	3,207.15
<b>Total</b>	<b>1846</b>	<b>202</b>	<b>202</b>	<b>177</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>64</b>	<b>2</b>	<b>8</b>	<b>2,516</b>	

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise	152	17	17	15	0	0	0	0	0	0	5	0	1	207	611.80
Condo/Townhouse High Rise	473	52	52	45	1	1	1	1	1	1	16	0	2	644	1,900.36
Congregate Care (Assisted Living)	321	35	35	31	0	0	0	0	0	0	11	0	1	437	1,288.80
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
High Turnover (Sit Down Restaurant)	930	102	102	89	1	1	1	1	1	1	32	1	4	1,267	3,737.44
<b>Total</b>	<b>1876</b>	<b>206</b>	<b>206</b>	<b>180</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>65</b>	<b>2</b>	<b>9</b>	<b>2,555</b>	

Gallons of Fuel	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
Gasoline	5,939	772	795	846	13	9	9	9	27	30	199	7	121	8,766
Apartments Mid Rise	18,489	2,404	2,476	2,634	39	28	24	0	84	94	620	21	376	27,288
Condo/Townhouse High Rise	8,573	1,115	1,148	1,221	18	13	11	0	39	43	287	10	174	12,653
Congregate Care (Assisted Living)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enclosed Parking with Elevator	19,675	2,559	2,635	2,803	42	30	25	0	89	100	660	23	400	29,039
High Turnover (Sit Down Restaurant)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>52,676</b>	<b>6,850</b>	<b>7,054</b>	<b>7,503</b>	<b>111</b>	<b>81</b>	<b>67</b>	<b>0</b>	<b>239</b>	<b>267</b>	<b>1,766</b>	<b>61</b>	<b>1,071</b>	<b>77,747</b> Total Gallons

Diesel	LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHDT	OBUS	UBUS	MCY	SBUS	MH	Total
Apartments Mid Rise	39	0	5	17	5	18	34	13	0	0	0	17	25	181
Condo/Townhouse High Rise	122	1	14	53	16	25	57	105	40	1	0	53	78	564
Congregate Care (Assisted Living)	57	0	7	25	7	12	26	49	19	0	0	24	36	261
Enclosed Parking with Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Turnover (Sit Down Restaurant)	130	1	15	56	17	27	60	112	43	1	0	56	83	600
<b>Total</b>	<b>348</b>	<b>3</b>	<b>40</b>	<b>151</b>	<b>44</b>	<b>71</b>	<b>162</b>	<b>299</b>	<b>115</b>	<b>2</b>	<b>0</b>	<b>150</b>	<b>221</b>	<b>1,606</b> Total Gallons

**79,353** Total Gallons

**34** Average MPC

# Utilities

	<b>Natural Gas Use</b>	<b>Electricity Use</b>
Land Use	kBTU/yr	kWh/yr
Apartments Mid Rise	952,487	419,904
Condo/Townhouse High Rise	2,078,920	1,068,120
Congregate Care (Assisted Living)	952,476	419,904
Enclosed Parking with Elevator	0	2,257,940
High Turnover (Sit Down Restaurant)	513,600	1,351,860
	0	
<b>Total</b>	<b>4,497,483</b>	<b>5,517,728</b>



# Offroad Construction Equipment Energy Use

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitA	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate		Total Fuel Consumption (gal/construction period)
		mount							(gal/hour)	Fuel Type	
Demolition	Concrete/Industrial Saws	0	8	81	0.73	100	66	2023	4.7	Gasoline	0
Demolition	Excavators	1	12	158	0.38	175	66	2023	2.9	Diesel	868
Demolition	Off-Highway Trucks	1	12	402	0.38	300	66	2023	4.1	Diesel	1,247
Demolition	Rubber Tired Dozers	0	8	247	0.4	300	66	2023	4.5	Diesel	0
Demolition	Tractors/Loaders/Backhoes	2	12	97	0.37	100	66	2023	1.6	Diesel	933
Site Preparation	Excavators	1	12	158	0.38	175	26	2023	2.9	Diesel	342
Site Preparation	Graders	0	8	187	0.41	175	26	2023	3.2	Diesel	0
Site Preparation	Off-Highway Trucks	1	12	402	0.38	300	26	2023	4.1	Diesel	491
Site Preparation	Rubber Tired Dozers	0	7	247	0.4	300	26	2023	4.5	Diesel	0
Site Preparation	Tractors/Loaders/Backhoes	2	12	97	0.37	100	26	2023	1.6	Diesel	368
Grading	Bore/Drill Rigs	2	12	221	0.5	100	108	2023	2.2	Diesel	2,825
Grading	Cranes	2	12	231	0.29	300	108	2023	3.3	Diesel	2,464
Grading	Excavators	1	12	158	0.38	175	108	2023	2.9	Diesel	1,421
Grading	Generator Sets	1	12	84	0.74	100	108	2023	5.2	Gasoline	4,982
Grading	Graders	0	8	187	0.41	175	108	2023	3.2	Diesel	0
Grading	Plate Compactors	1	12	8	0.43	25	108	2023	0.3	Gasoline	174
Grading	Rubber Tired Dozers	0	8	247	0.4	300	108	2023	4.5	Diesel	0
Grading	Tractors/Loaders/Backhoes	2	12	97	0.37	100	108	2023	1.6	Diesel	1,527
Building Construction	Air Compressors	2	12	78	0.48	100	640	2023	1.3	Diesel	9,763
Building Construction	Cranes	1	12	231	0.29	300	640	2023	3.3	Diesel	7,300
Building Construction	Excavators	1	12	158	0.38	175	640	2023	2.9	Diesel	8,422
Building Construction	Forklifts	0	6	89	0.2	100	640	2023	2.0	Diesel	0
Building Construction	Generator Sets	1	12	84	0.74	100	640	2023	5.2	Gasoline	29,522
Building Construction	Pumps	3	12	84	0.74	100	640	2023	1.3	Diesel	22,860
Building Construction	Skid Steer Loaders	2	12	65	0.37	50	640	2023	0.9	Diesel	5,264
Building Construction	Tractors/Loaders/Backhoes	1	12	97	0.37	100	640	2023	1.6	Diesel	4,525
Building Construction	Welders	3	12	46	0.45	50	640	2023	2.4	Gasoline	24,994
Architectural Coating	Air Compressors	2	12	78	0.48	100	53	2023	1.3	Diesel	808
									<b>Total</b>	<b>Gasoline</b>	<b>59,671</b>
									<b>Total</b>	<b>Diesel</b>	<b>71,430</b>

## Onroad Construction Energy Use

Year 2023

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	31.7	50.0		6,635,002	62,493	150,700	6,697,495
LDT1	27.2	22.9		758,468	361	7,123	758,828
LDT2	25.5	36.7		2,285,150	15,595	28,810	2,300,745
LHDT1	10.7	21.9		174,910	125,545		300,455
LHDT2	9.3	19.8		30,103	50,003		80,106
MCY	36.4			305,045			305,045
MDV	20.7	28.1		1,589,863	36,128	16,377	1,625,991
MH	5.2	10.7		34,680	13,123		47,802
MHDT	5.1	11.2		25,624	122,124		147,749
HHDT	4.3	7.1		75	109,819		109,894
OBUS	5.1	8.7		5,955	4,287		10,242
SBUS	9.2	7.7		2,784	6,672		9,455
UBUS	5.1	5.9		958	13	16	971

### Input

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	13	0	300	14.7	6.9	5
Site Preparation	8	0	60	14.7	6.9	5
Grading	10	0	21030	14.7	6.9	5
Building Construction	150	6	0	14.7	6.9	5
Architectural Coating	30	0	0	14.7	6.9	5

### Adjusted

Demolition	858	0	300	14.7	6.9	5
Site Preparation	208	0	60	14.7	6.9	5
Grading	1080	0	21030	14.7	6.9	5
Building Construction	96000	3840	0	14.7	6.9	5
Architectural Coating	1590	0	0	14.7	6.9	5

### Total

Gasoline Consumption			Diesel Consumption		
Worker	Vendor	Haul	Worker	Vendor	Haul
490	0	0	2	0	210
119	0	0	1	0	42
617	0	17	3	0	14,717
54,880	1,253	0	261	21	0
909	0	0	4	0	0
0	0	0	0	0	0
<b>57,016</b>	<b>1,253</b>	<b>17</b>	<b>271</b>	<b>21</b>	<b>14,969</b>