

**Appendix B:  
Air Quality, GHG, and Energy Supporting Information**

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# City of Colton Housing Element Rezone Custom Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	City of Colton Housing Element Rezone
Operational Year	2039
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	14.2
Location	34.068651, -117.304047
County	San Bernardino-South Coast
City	Colton
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6818
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	1,774	Dwelling Unit	22.6	1,703,040	0.00	—	5,872	—

Apartments High Rise	618	Dwelling Unit	9.10	593,280	0.00	—	2,046	—
Single Family Housing	5.00	Dwelling Unit	0.90	9,750	58,564	—	17.0	—
General Office Building	943	1000sqft	21.6	943,000	0.00	—	—	—
City Park	17.8	Acre	17.8	0.00	17.8	17.8	—	—
Parking Lot	17.8	Acre	17.8	0.00	0.00	—	—	—

## 2. Emissions Summary

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	54.2	49.5	40.4	459	1.36	0.63	144	145	0.59	36.5	37.1	—	139,750	139,750	4.77	5.88	91.2	141,714
Area	790	721	51.3	1,397	3.12	171	—	171	168	—	168	22,453	43,433	65,885	67.0	0.82	—	67,803
Energy	1.55	0.77	13.7	8.69	0.08	1.07	—	1.07	1.07	—	1.07	—	56,883	56,883	3.97	0.33	—	57,082
Water	—	—	—	—	—	—	—	—	—	—	—	513	2,663	3,176	52.7	1.27	—	4,872
Waste	—	—	—	—	—	—	—	—	—	—	—	1,429	0.00	1,429	143	0.00	—	5,001
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8
Total	846	771	105	1,864	4.56	173	144	317	170	36.5	206	24,395	242,729	267,123	271	8.31	110	276,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	52.3	47.6	43.3	384	1.27	0.63	144	145	0.59	36.5	37.1	—	130,914	130,914	4.93	6.06	2.37	132,846
Area	770	702	49.7	1,219	3.11	171	—	171	168	—	168	22,453	42,900	65,353	66.9	0.81	—	67,269
Energy	1.55	0.77	13.7	8.69	0.08	1.07	—	1.07	1.07	—	1.07	—	56,883	56,883	3.97	0.33	—	57,082
Water	—	—	—	—	—	—	—	—	—	—	—	513	2,663	3,176	52.7	1.27	—	4,872

Waste	—	—	—	—	—	—	—	—	—	—	—	1,429	0.00	1,429	143	0.00	—	5,001
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8
Total	824	750	107	1,612	4.47	173	144	317	170	36.5	206	24,395	233,360	257,755	271	8.48	21.2	267,089
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.9	40.8	38.0	345	1.12	0.55	124	124	0.51	31.5	32.0	—	114,934	114,934	4.28	5.30	34.2	116,656
Area	137	132	4.50	205	0.22	11.8	—	11.8	11.6	—	11.6	1,538	3,303	4,841	4.60	0.06	—	4,973
Energy	1.55	0.77	13.7	8.69	0.08	1.07	—	1.07	1.07	—	1.07	—	56,883	56,883	3.97	0.33	—	57,082
Water	—	—	—	—	—	—	—	—	—	—	—	513	2,663	3,176	52.7	1.27	—	4,872
Waste	—	—	—	—	—	—	—	—	—	—	—	1,429	0.00	1,429	143	0.00	—	5,001
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8
Total	184	173	56.2	559	1.42	13.4	124	137	13.2	31.5	44.6	3,480	177,783	181,263	208	6.96	53.0	188,603
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.20	7.45	6.94	63.0	0.20	0.10	22.6	22.7	0.09	5.74	5.84	—	19,029	19,029	0.71	0.88	5.67	19,314
Area	25.0	24.0	0.82	37.4	0.04	2.16	—	2.16	2.11	—	2.11	255	547	801	0.76	0.01	—	823
Energy	0.28	0.14	2.49	1.59	0.02	0.20	—	0.20	0.20	—	0.20	—	9,418	9,418	0.66	0.06	—	9,451
Water	—	—	—	—	—	—	—	—	—	—	—	84.9	441	526	8.73	0.21	—	807
Waste	—	—	—	—	—	—	—	—	—	—	—	237	0.00	237	23.7	0.00	—	828
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.11	3.11
Total	33.5	31.6	10.3	102	0.26	2.45	22.6	25.1	2.40	5.74	8.14	576	29,434	30,010	34.5	1.15	8.78	31,225

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	24.1	22.0	17.9	204	0.60	0.28	63.9	64.2	0.26	16.2	16.5	—	62,041	62,041	2.12	2.61	40.5	62,913
Apartments High Rise	6.99	6.38	5.20	59.1	0.18	0.08	18.5	18.6	0.08	4.71	4.78	—	17,998	17,998	0.61	0.76	11.8	18,251
Single Family Housing	0.12	0.11	0.09	1.01	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	307	307	0.01	0.01	0.20	311
General Office Building	22.9	20.9	17.1	194	0.58	0.27	60.9	61.2	0.25	15.5	15.7	—	59,154	59,154	2.02	2.49	38.6	59,985
City Park	0.10	0.09	0.07	0.82	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	251	251	0.01	0.01	0.16	255
Parking Lot	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	0.00
Total	54.2	49.5	40.4	459	1.36	0.63	144	145	0.59	36.5	37.1	—	139,750	139,750	4.77	5.88	91.2	141,714
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	23.2	21.1	19.2	171	0.57	0.28	63.9	64.2	0.26	16.2	16.5	—	58,118	58,118	2.19	2.69	1.05	58,976
Apartments High Rise	6.74	6.13	5.58	49.5	0.16	0.08	18.5	18.6	0.08	4.71	4.78	—	16,860	16,860	0.64	0.78	0.30	17,109
Single Family Housing	0.11	0.10	0.10	0.84	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	287	287	0.01	0.01	0.01	292
General Office Building	22.1	20.1	18.3	163	0.54	0.27	60.9	61.2	0.25	15.5	15.7	—	55,414	55,414	2.09	2.57	1.00	56,231

City Park	0.09	0.09	0.08	0.69	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	235	235	0.01	0.01	< 0.005	239
Parking Lot	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	0.00
Total	52.3	47.6	43.3	384	1.27	0.63	144	145	0.59	36.5	37.1	—	130,914	130,914	4.93	6.06	2.37	132,846
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.99	3.62	3.37	30.6	0.10	0.05	11.0	11.0	0.05	2.79	2.83	—	9,243	9,243	0.34	0.43	2.75	9,381
Apartments High Rise	1.16	1.06	0.99	8.95	0.03	0.01	3.21	3.23	0.01	0.82	0.83	—	2,701	2,701	0.10	0.12	0.80	2,742
Single Family Housing	0.02	0.02	0.02	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	47.0	47.0	< 0.005	< 0.005	0.01	47.7
General Office Building	3.02	2.75	2.56	23.2	0.08	0.04	8.34	8.38	0.03	2.12	2.15	—	7,017	7,017	0.26	0.32	2.09	7,122
City Park	0.01	0.01	0.01	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	20.7	20.7	< 0.005	< 0.005	0.01	21.0
Parking Lot	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	0.00
Total	8.20	7.45	6.94	63.0	0.20	0.10	22.6	22.7	0.09	5.74	5.84	—	19,029	19,029	0.71	0.88	5.67	19,314

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	11,160	11,160	0.69	0.08	—	11,202
Apartment High Rise	—	—	—	—	—	—	—	—	—	—	—	—	3,888	3,888	0.24	0.03	—	3,902
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	< 0.005	< 0.005	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23,986	23,986	1.49	0.18	—	24,077
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	990	990	0.06	0.01	—	994
Total	—	—	—	—	—	—	—	—	—	—	—	—	40,079	40,079	2.49	0.30	—	40,231
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	11,160	11,160	0.69	0.08	—	11,202
Apartment High Rise	—	—	—	—	—	—	—	—	—	—	—	—	3,888	3,888	0.24	0.03	—	3,902
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	< 0.005	< 0.005	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	23,986	23,986	1.49	0.18	—	24,077
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	990	990	0.06	0.01	—	994

Total	—	—	—	—	—	—	—	—	—	—	—	—	40,079	40,079	2.49	0.30	—	40,231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,848	1,848	0.11	0.01	—	1,855
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	644	644	0.04	< 0.005	—	646
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	9.18	9.18	< 0.005	< 0.005	—	9.22
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	3,971	3,971	0.25	0.03	—	3,986
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	164	164	0.01	< 0.005	—	165
Total	—	—	—	—	—	—	—	—	—	—	—	—	6,636	6,636	0.41	0.05	—	6,661

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.58	0.29	4.94	2.10	0.03	0.40	—	0.40	0.40	—	0.40	—	6,275	6,275	0.56	0.01	—	6,292
Apartments High Rise	0.20	0.10	1.72	0.73	0.01	0.14	—	0.14	0.14	—	0.14	—	2,186	2,186	0.19	< 0.005	—	2,192

Single Family Housing	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.1	50.1	< 0.005	< 0.005	—	50.3
General Office Building	0.76	0.38	6.95	5.84	0.04	0.53	—	0.53	0.53	—	0.53	—	8,293	8,293	0.73	0.02	—	8,316
City Park	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
Parking Lot	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
Total	1.55	0.77	13.7	8.69	0.08	1.07	—	1.07	1.07	—	1.07	—	16,804	16,804	1.49	0.03	—	16,851
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.58	0.29	4.94	2.10	0.03	0.40	—	0.40	0.40	—	0.40	—	6,275	6,275	0.56	0.01	—	6,292
Apartments High Rise	0.20	0.10	1.72	0.73	0.01	0.14	—	0.14	0.14	—	0.14	—	2,186	2,186	0.19	< 0.005	—	2,192
Single Family Housing	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.1	50.1	< 0.005	< 0.005	—	50.3
General Office Building	0.76	0.38	6.95	5.84	0.04	0.53	—	0.53	0.53	—	0.53	—	8,293	8,293	0.73	0.02	—	8,316
City Park	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
Parking Lot	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
Total	1.55	0.77	13.7	8.69	0.08	1.07	—	1.07	1.07	—	1.07	—	16,804	16,804	1.49	0.03	—	16,851
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,039	1,039	0.09	< 0.005	—	1,042

Apartme High Rise	0.04	0.02	0.31	0.13	< 0.005	0.03	—	0.03	0.03	—	0.03	—	362	362	0.03	< 0.005	—	363
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.30	8.30	< 0.005	< 0.005	—	8.32
General Office Building	0.14	0.07	1.27	1.07	0.01	0.10	—	0.10	0.10	—	0.10	—	1,373	1,373	0.12	< 0.005	—	1,377
City Park	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
Parking Lot	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
Total	0.28	0.14	2.49	1.59	0.02	0.20	—	0.20	0.20	—	0.20	—	2,782	2,782	0.25	0.01	—	2,790

### 4.3. Area Emissions by Source

#### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	694	626	49.7	1,219	3.11	171	—	171	168	—	168	22,453	42,900	65,353	66.9	0.81	—	67,269
Consum er Product s	69.6	69.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	6.41	6.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	19.8	18.5	1.60	178	0.01	0.13	—	0.13	0.10	—	0.10	—	532	532	0.02	< 0.005	—	534
Total	790	721	51.3	1,397	3.12	171	—	171	168	—	168	22,453	43,433	65,885	67.0	0.82	—	67,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	694	626	49.7	1,219	3.11	171	—	171	168	—	168	22,453	42,900	65,353	66.9	0.81	—	67,269
Consumer Products	69.6	69.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	6.41	6.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	770	702	49.7	1,219	3.11	171	—	171	168	—	168	22,453	42,900	65,353	66.9	0.81	—	67,269
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	8.68	7.83	0.62	15.2	0.04	2.14	—	2.14	2.10	—	2.10	255	486	741	0.76	0.01	—	763
Consumer Products	12.7	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.17	1.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.47	2.32	0.20	22.2	< 0.005	0.02	—	0.02	0.01	—	0.01	—	60.4	60.4	< 0.005	< 0.005	—	60.6
Total	25.0	24.0	0.82	37.4	0.04	2.16	—	2.16	2.11	—	2.11	255	547	801	0.76	0.01	—	823

#### 4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	142	734	875	14.6	0.35	—	1,344
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	49.4	256	305	5.08	0.12	—	468
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.40	11.0	11.4	0.04	< 0.005	—	12.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	321	1,663	1,984	33.0	0.79	—	3,047
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	513	2,663	3,176	52.7	1.27	—	4,872
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	142	734	875	14.6	0.35	—	1,344
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	49.4	256	305	5.08	0.12	—	468

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.40	11.0	11.4	0.04	< 0.005	—	12.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	321	1,663	1,984	33.0	0.79	—	3,047
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	513	2,663	3,176	52.7	1.27	—	4,872
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	23.5	121	145	2.41	0.06	—	223
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	8.17	42.3	50.5	0.84	0.02	—	77.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.07	1.81	1.88	0.01	< 0.005	—	2.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	53.2	275	328	5.47	0.13	—	504
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	84.9	441	526	8.73	0.21	—	807

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	707	0.00	707	70.7	0.00	—	2,474
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	246	0.00	246	24.6	0.00	—	862
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.68	0.00	2.68	0.27	0.00	—	9.36
General Office Building	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.2	0.00	—	1,654
City Park	—	—	—	—	—	—	—	—	—	—	—	0.83	0.00	0.83	0.08	0.00	—	2.89
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,429	0.00	1,429	143	0.00	—	5,001
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	707	0.00	707	70.7	0.00	—	2,474
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	246	0.00	246	24.6	0.00	—	862
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.68	0.00	2.68	0.27	0.00	—	9.36

General Office Building	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.2	0.00	—	1,654
City Park	—	—	—	—	—	—	—	—	—	—	—	0.83	0.00	0.83	0.08	0.00	—	2.89
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,429	0.00	1,429	143	0.00	—	5,001
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	117	0.00	117	11.7	0.00	—	410
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.08	0.00	—	143
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.44	0.00	0.44	0.04	0.00	—	1.55
General Office Building	—	—	—	—	—	—	—	—	—	—	—	78.3	0.00	78.3	7.82	0.00	—	274
City Park	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.48
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	237	0.00	237	23.7	0.00	—	828

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2	12.2
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.29	2.29
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2	12.2
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.25	4.25
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.29	2.29
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.70	0.70
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38	0.38
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.11	3.11

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	9,651	8,710	7,256	3,348,552	90,187	81,400	67,806	31,292,981
Apartments High Rise	2,750	2,800	2,219	978,652	25,700	26,162	20,734	9,145,722
Single Family Housing	47.2	47.7	42.8	17,022	441	446	400	159,075
General Office Building	9,185	2,084	660	2,537,701	85,994	19,512	6,180	23,759,557

City Park	13.9	34.9	39.0	7,472	130	327	365	69,953
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	89
Gas Fireplaces	1508
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	177
Conventional Wood Stoves	0
Catalytic Wood Stoves	89
Non-Catalytic Wood Stoves	89
Pellet Wood Stoves	0
Apartments High Rise	—
Wood Fireplaces	31
Gas Fireplaces	525
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	62
Conventional Wood Stoves	0
Catalytic Wood Stoves	31
Non-Catalytic Wood Stoves	31
Pellet Wood Stoves	0

Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	4
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
4669791.75	1,556,597	1,414,500	471,500	46,522

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

#### Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	7,656,872	532	0.0330	0.0040	19,579,956
Apartments High Rise	2,667,388	532	0.0330	0.0040	6,820,977

Single Family Housing	38,048	532	0.0330	0.0040	156,449
General Office Building	16,457,130	532	0.0330	0.0040	25,875,936
City Park	0.00	532	0.0330	0.0040	0.00
Parking Lot	679,222	532	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	73,942,404	0.00
Apartments High Rise	25,758,966	0.00
Single Family Housing	208,406	1,149,484
General Office Building	167,602,924	0.00
City Park	0.00	635
Parking Lot	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	1,312	—
Apartments High Rise	457	—
Single Family Housing	4.96	—
General Office Building	877	—
City Park	1.53	—
Parking Lot	0.00	—

## 5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

8. User Changes to Default Data

Screen	Justification
Land Use	Based on project description

Construction: Construction Phases	—
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