

Appendix C:
**Air Quality, Greenhouse Gas Emissions, and Energy Supporting
Information**

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Appendix C: Air Quality, Greenhouse Gases, and Energy

Supporting Information

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Barber Yard Specific Plan
Construction Modeling Project Area Buildout - Apportionment

Start Year	End Year	years	Project Area	Total Units	SF - Detached	SF-Attached	Multi-family	Commercial
2024	2027	4	PA 1	219			219	-
2028	2030	3	PA 2A	66			66	-
2024	2028	5	PA 2B	35	8	27		-
2024	2028	5	PA 2C	44	32	12		-
2026	2027	2	PA 2D	17	17	0		-
2028	2028	1	PA 3	27			23	1,800
2026	2028	3	PA 4	52	52	0		-
2024	2029	6	PA 5	62	50	12		-
2026	2030	5	PA 6	75	0	42	33	5,000
2024	2026	3	PA-7	19			19	65,600
2030	2033	4	PA 8	219			219	-
2028	2030	3	PA 9	71	71	0		-
2030	2034	5	PA 10	69	69	0		-
2028	2032	5	PA 11	25	15	10		1,000
2027	2030	4	PA 12	34			34	1,800
2034	2036	3	PA 13	52	52	0		-
2040	2041	2	PA 14	32	32	0		-
2036	2038	3	PA 15	67	67	0		-
2036	2038	3	PA 16	65	65	0		-
2024	2026	3	PA 17					130,000
2024	2027	4	PA 18					4,800
2024	2024	1	ALL- SOIL					
Totals				1250	530	107	613	210000

Construction Multipliers*					
Project Area	SF - Detached	SF-Attached	Multi-family	Commercial	Demo- Earthwork
PA 1	0	0	2.19	0.00	0
PA 2A	0	0	0.66	0.00	0
PA 2B	0.16	0.54	0	0.00	0
PA 2C	0.64	0.24	0	0.00	0
PA 2D	0.34	0	0	0.00	0
PA 3	0	0.08	0.23	0.03	0
PA 4	1.04	0	0	0.00	0
PA 5	1	0.24	0	0.00	0
PA 6	0	0.84	0.33	0.08	0
PA-7	0	0	0.19	1.01	0
PA 8	0	0	2.19	0.00	0
PA 9	1.42	0	0	0.00	0
PA 10	1.38	0	0	0.00	0
PA 11	0.3	0.2	0	0.02	0
PA 12	0	0	0.34	0.03	0
PA 13	1.04	0	0	0.00	0
PA 14	0.64	0	0	0.00	0
PA 15	1.34	0	0	0.00	0
PA 16	1.3	0	0	0.00	0
PA 17	0	0	0	2.00	0
PA 18	0	0	0	0.07	0
ALL- SOIL	0	0	0	0.00	1

* Based on CalEEMod Modeling for Landuse Blocks of 50 Single Family Dwelling Units, 100 Multifamily Dwelling Units, 65,000 square feet of Commercial, and Earthwork/Demolition anticipated for initial site preparation.

Apportionment of Construction*																		
Project Area	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
PA 1	0.250	0.250	0.250	0.250														
PA 2A				0.333	0.333	0.333												
PA 2B	0.200	0.200	0.200	0.200	0.200													
PA 2C	0.200	0.200	0.200	0.200	0.200													
PA 2D			0.500	0.500														
PA 3					1.000													
PA 4			0.333	0.333	0.333													
PA 5	0.167	0.167	0.167	0.167	0.167	0.167												
PA 6			0.200	0.200	0.200	0.200	0.200											
PA-7	0.333	0.333	0.333															
PA 8							0.250	0.250	0.250	0.250								
PA 9					0.333	0.333	0.333											
PA 10							0.200	0.200	0.200	0.200								
PA 11					0.200	0.200	0.200	0.200	0.200									
PA 12				0.250	0.250	0.250	0.250											
PA 13											0.333	0.333	0.333					
PA 14																	0.500	0.500
PA 15													0.333	0.333	0.333			
PA 16													0.333	0.333	0.333			
PA 17	0.333	0.333	0.333															
PA 18	0.250	0.250	0.250	0.250														
ALL- SOIL	1.000																	

* Total emissions for each PA Construction based on SF, MF, Commercial/Retail Construction Amounts apportioned over years.

Barber Yard Specific Plan Soil Haul Calculations

Building Demolition:	4100	Square Feet	(3 Accessory Buildings; 2700 sf; 800 sf; 600 sf) CalEEMod - building waste tonnage - structural floor space relationship determined from a 1976 analysis by Murphy and Chatterjee
	1 sf	0.046 Tons	
	189	tons	
Asphalt Demolition / Removal:	6.79	Acres	
	295772.4	Square Feet	
	0.75	ft-thickness (Soil and Asphalt) removed	
	8216	Cubic Yards of Material	
	773	Asphalt Pavement Density (lbs./cy) US EPA, 2016	
	3175	Tons	
Total Demolition	3364	Tons	
Demolition Phase Duration	20	Days	

Soil Associated with Hazardous Materials Investigation

Best Case Scenario Excavation:			
Area 1 (Normal Avenue Dump)	73332	area (square feet)	
	0.5	depth (ft)	
	1358	Cubic Yards (compacted)	
	2037	Cubic Yards (excavated)	
Area 2 (West of Normal Avenue Dump)	86404	area (square feet)	
	0.5	depth (ft)	
	1600	Cubic Yards (compacted)	
	2400	Cubic Yards (excavated)	
Area 3 (South Orchard Dump at Estes)	41807	area (square feet)	
	1.25	depth (ft)	
	1936	Cubic Yards (compacted)	
	2904	Cubic Yards (excavated)	
Area 4 (Western South Orchard Dump)	127578	area (square feet)	
	0.5	depth (ft)	
	2362	Cubic Yards (compacted)	
	3543	Cubic Yards (excavated)	
Soil / Cut (Export)	10884	Cubic Yards	fluffed (1.5x)
Acres Removed	7.4	Acres	
Days required for Excavation Activities	20	Days	

Worst Case Scenario - Additional Excavation:			
Along Historical Track Spur Right of Way			Potential additional surface soil removed
Former Track Spur	Spur Length (ft)		
Track 1	820	8200	area (square feet @10' wide)
		0.5	depth (ft)
		152	Cubic Yards (compacted)
		228	Cubic Yards (excavated)
Track 2	310	3100	area (square feet @10' wide)
		0.5	depth (ft)
		57	Cubic Yards (compacted)
		86	Cubic Yards (excavated)
Track 3	1750	17500	area (square feet @10' wide)
		0.5	depth (ft)
		324	Cubic Yards (compacted)
		486	Cubic Yards (excavated)
Track 4	290	2900	area (square feet @10' wide)
		0.5	depth (ft)
		54	Cubic Yards (compacted)
		81	Cubic Yards (excavated)
Track 5	1440	14400	area (square feet @10' wide)
		0.5	depth (ft)
		267	Cubic Yards (compacted)
			Cubic Yards (excavated)
Track 6	300	3000	area (square feet @10' wide)
		0.5	depth (ft)
		56	Cubic Yards (compacted)

	83	Cubic Yards (excavated)
Track 7	2680	26800 area (square feet @10' wide) 0.5 depth (ft) 496 Cubic Yards (compacted) Cubic Yards (excavated)
Track 8	1050	10500 area (square feet @10' wide) 0.5 depth (ft) 194 Cubic Yards (compacted) Cubic Yards (excavated)
Track 9	880	8800 area (square feet @10' wide) 0.5 depth (ft) 163 Cubic Yards (compacted) 244 Cubic Yards (excavated)
Track 10	410	4100 area (square feet @10' wide) 0.5 depth (ft) 76 Cubic Yards (compacted) 114 Cubic Yards (excavated)
Track 11	470	4700 area (square feet @10' wide) 0.5 depth (ft) 87 Cubic Yards (compacted) 131 Cubic Yards (excavated)
Track 12	590	5900 area (square feet @10' wide) 0.5 depth (ft) 109 Cubic Yards (compacted) 164 Cubic Yards (excavated)
Track 13	280	2800 area (square feet @10' wide) 0.5 depth (ft) 52 Cubic Yards (compacted) 78 Cubic Yards (excavated)

Soil / Cut (Export)	112700	Square Feet	
	2087	Cubic Yards	fluffed (1.5x)
Acres of Removal	2.6	Acres	
Days required for Excavation Activities	10	Days	

Soil Cut from Off-Site Stormwater Basin	3	Acres	
	130680	Square Feet	
	3	depth (ft)	
	14520	Cubic Yards (compacted)	
	21780	Cubic Yards (excavated)	

Note: spoils are used to fill excavation from Hazardous Waste Soil Excavation, Rest is used to balance onsite nearby. No soil exported off-site.

Construction Earth-Moving Activities

Construction Schedule		
Phase Name	Phase Type	Work Days
Demolition	Demolition	20
Soil Excavation / On-site Contamination (best)	Grading	20
Soil Excavation / On-site Contamination (worst)	Grading	30

Construction Earth-Moving Activities - Best Case from Normal Avenue and Orchard Dumps (20 days)

	Modeled as	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Material Demolished Tons
Demolition	Demolition			3364
Soil Excavation / On-site Contamination (best)	Grading		10884	

Construction Earth-Moving Activities - Worst Case (includes historical track alignment quantity = 20 + 10 days)

	Modeled as	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Material Demolished Tons
Demolition	Demolition			3364
Soil Excavation / Contaminated	Grading		12971	

BYSP - Single Family Detached - Unmitigated Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Single Family Detached - Unmitigated
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
Single Family Housing	50.0	Dwelling Unit	16.2	97,500	585,643	0.00	128	0

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.26	1.06	9.04	11.3	0.02	0.36	0.15	0.51	0.33	0.04	0.37	—	2,173	2,173	0.09	0.03	0.83	2,186
2025	30.7	30.7	8.42	11.1	0.02	0.35	0.15	0.47	0.32	0.04	0.35	—	2,169	2,169	0.09	0.03	0.77	2,181
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.44	3.73	36.0	33.8	0.06	1.60	7.79	9.39	1.47	3.97	5.44	—	7,005	7,005	0.29	0.06	0.02	7,030
2025	1.17	0.98	8.45	10.8	0.02	0.32	0.15	0.47	0.29	0.04	0.33	—	2,151	2,151	0.09	0.03	0.02	2,163
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.22	1.03	9.27	10.2	0.02	0.38	0.61	0.99	0.35	0.25	0.60	—	2,030	2,030	0.08	0.03	0.24	2,041
2025	2.00	1.95	2.29	3.01	0.01	0.09	0.04	0.13	0.08	0.01	0.09	—	566	566	0.02	0.01	0.09	569
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.22	0.19	1.69	1.86	< 0.005	0.07	0.11	0.18	0.06	0.05	0.11	—	336	336	0.01	< 0.005	0.04	338
2025	0.36	0.36	0.42	0.55	< 0.005	0.02	0.01	0.02	0.01	< 0.005	0.02	—	93.7	93.7	< 0.005	< 0.005	0.01	94.2

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Appendix C

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.99	0.90	< 0.005	0.04	—	0.04	0.04	—	0.04	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.75
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

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

Off-Road Equipment	4.16	3.50	34.0	31.4	0.06	1.46	—	1.46	1.34	—	1.34	—	6,874	6,874	0.28	0.06	—	6,897
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	2.80	2.58	0.01	0.12	—	0.12	0.11	—	0.11	—	565	565	0.02	< 0.005	—	567
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.51	0.47	< 0.005	0.02	—	0.02	0.02	—	0.02	—	93.5	93.5	< 0.005	< 0.005	—	93.9
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	0.02	11.2
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.83	1.83	< 0.005	< 0.005	< 0.005	1.86
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.14	0.95	8.83	9.98	0.02	0.36	—	0.36	0.33	—	0.33	—	1,940	1,940	0.08	0.02	—	1,947
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.14	0.95	8.83	9.98	0.02	0.36	—	0.36	0.33	—	0.33	—	1,940	1,940	0.08	0.02	—	1,947
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.57	5.34	6.03	0.01	0.22	—	0.22	0.20	—	0.20	—	1,173	1,173	0.05	0.01	—	1,177
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.10	0.97	1.10	< 0.005	0.04	—	0.04	0.04	—	0.04	—	194	194	0.01	< 0.005	—	195
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.22	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	153	153	0.01	0.01	0.62	155
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.21	83.9
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.92	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.02	136
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.01	83.9
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.06	0.05	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	83.7	83.7	0.01	< 0.005	0.16	85.1
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.5	48.5	< 0.005	0.01	0.05	50.7
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.03	14.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.04	8.04	< 0.005	< 0.005	0.01	8.39
Hauling	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

3.7. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.89	8.23	9.92	0.02	0.31	—	0.31	0.29	—	0.29	—	1,940	1,940	0.08	0.02	—	1,947
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.89	8.23	9.92	0.02	0.31	—	0.31	0.29	—	0.29	—	1,940	1,940	0.08	0.02	—	1,947
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.23	0.19	1.79	2.15	< 0.005	0.07	—	0.07	0.06	—	0.06	—	421	421	0.02	< 0.005	—	423
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.39	< 0.005	0.01	—	0.01	0.01	—	0.01	—	69.8	69.8	< 0.005	< 0.005	—	70.0
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.06	1.13	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	150	150	0.01	0.01	0.57	152
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.8	78.8	< 0.005	0.01	0.20	82.4
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	0.85	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	134
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.9	78.9	< 0.005	0.01	0.01	82.4
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.5	29.5	< 0.005	< 0.005	0.05	29.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.02	17.9
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.88	4.88	< 0.005	< 0.005	0.01	4.96
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.96

Hauling	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
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3.9. Paving (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	0.94	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	125	125	0.01	< 0.005	0.47	127
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.19	6.19	< 0.005	< 0.005	0.01	6.29
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.04
Vendor	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
Hauling	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

3.11. Architectural Coating (2025) - Unmitigated

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

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

Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	30.5	30.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	1.67	1.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.31	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.9	29.9	< 0.005	< 0.005	0.11	30.4
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.51
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/15/2024	5.00	10.0	—
Grading	Grading	1/16/2024	2/26/2024	5.00	30.0	—
Building Construction	Building Construction	2/27/2024	4/21/2025	5.00	300	—
Paving	Paving	4/22/2025	5/19/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	5/20/2025	6/16/2025	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation Appendix C	Worker	17.5	10.3	LDA,LDT1,LDT2 19

Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	5.34	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.60	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	197,438	65,813	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.55

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.55	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
--------	---------------

Characteristics: Project Details	Single Family Residential Build
Characteristics: Utility Information	defaults
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Single Family Housing Defaults
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors (2024 factors for all years), Tier 4 or Level 3 VDECs for PM Exhaust
Construction: Dust From Material Movement	—
Construction: Paving	asphalt driveways

BYSP - Single Family Attached Build -unmitigated Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Single Family Attached Build -unmitigated
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
Condo/Townhouse	50.0	Dwelling Unit	3.13	53,000	0.00	0.00	128	0
Parking Lot	1.88	Acre	1.88	0.00	0.00	0.00	—	0

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.67	1.43	11.5	15.6	0.02	0.50	0.28	0.78	0.46	0.07	0.53	—	2,783	2,783	0.11	0.04	1.45	2,800
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.44	3.73	36.0	33.8	0.05	1.60	7.79	9.39	1.47	3.97	5.44	—	5,426	5,426	0.22	0.05	0.04	5,447
2025	18.5	18.5	6.61	9.79	0.01	0.29	0.15	0.43	0.26	0.03	0.30	—	1,497	1,497	0.07	0.02	0.02	1,504
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.29	1.09	9.29	11.6	0.02	0.41	0.54	0.95	0.37	0.22	0.60	—	2,076	2,076	0.09	0.03	0.41	2,087
2025	1.08	1.07	0.41	0.62	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	92.6	92.6	< 0.005	< 0.005	0.02	93.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.24	0.20	1.69	2.12	< 0.005	0.07	0.10	0.17	0.07	0.04	0.11	—	344	344	0.01	< 0.005	0.07	346
2025	0.20	0.20	0.08	0.11	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	< 0.005	15.4

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.99	0.90	< 0.005	0.04	—	0.04	0.04	—	0.04	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.75
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

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

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Off-Road Equipment	2.36	1.98	18.8	21.1	0.03	0.88	—	0.88	0.81	—	0.81	—	3,376	3,376	0.14	0.03	—	3,387
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.15	< 0.005	0.05	—	0.05	0.04	—	0.04	—	185	185	0.01	< 0.005	—	186
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.6	30.6	< 0.005	< 0.005	—	30.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.32	6.32	< 0.005	< 0.005	0.01	6.42
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.06
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.07	8.26	0.01	0.31	—	0.31	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.29	1.51	< 0.005	0.06	—	0.06	0.05	—	0.05	—	250	250	0.01	< 0.005	—	251
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.14	2.43	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	306	306	0.02	0.01	1.24	311
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.21	83.9
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.19	1.83	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	269	269	0.02	0.01	0.03	273
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.01	83.9
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.13	0.12	0.10	1.17	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	175	175	0.01	0.01	0.34	177
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.6	50.6	< 0.005	0.01	0.06	52.8
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.9	28.9	< 0.005	< 0.005	0.06	29.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.38	8.38	< 0.005	< 0.005	0.01	8.75
Hauling	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

3.7. Paving (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.85	0.71	6.52	8.84	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.05	0.04	0.36	0.48	< 0.005	0.02	—	0.02	0.01	—	0.01	—	74.0	74.0	< 0.005	< 0.005	—	74.3
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.09	0.95	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	146	146	0.01	0.01	0.02	148
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.26	8.26	< 0.005	< 0.005	0.01	8.39
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
Vendor	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
Hauling	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

3.9. Architectural Coating (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	18.3	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	1.00	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22

Architect ural Coating	0.18	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.01	53.5
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.50
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name		Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation		Site Preparation	1/2/2024	1/15/2024	5.00	10.0	—
Grading	Appendix C	Grading	1/16/2024	2/12/2024	5.00	20.0	— 35

Building Construction	Building Construction	2/13/2024	12/30/2024	5.00	230	—
Paving	Paving	1/1/2025	1/28/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	1/29/2025	2/25/2025	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	36.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	5.34	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.20	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
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5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	107,325	35,775	0.00	0.00	4,901

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.88

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	0.00	100%

Appendix C

Parking Lot	1.88	100%
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5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Single Family Attached Residential Build
Characteristics: Utility Information	defaults
Land Use	65,000 sq ft commercial/retail on 5 acres
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	SF Attached Build on 5 acres
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	—
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP - Multifamily Residential Build - Unmitigated Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Multifamily Residential Build - Unmitigated
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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	100	Dwelling Unit	2.63	96,000	0.00	0.00	256	0
Parking Lot	2.37	Acre	2.37	0.00	0.00	0.00	—	0 42

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.91	1.65	11.8	18.1	0.02	0.50	0.56	1.06	0.46	0.13	0.59	—	3,169	3,169	0.13	0.07	2.89	3,195
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	37.5	37.3	36.0	38.7	0.06	1.60	7.79	9.39	1.47	3.97	5.44	—	6,584	6,584	0.28	0.10	0.09	6,620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.13	2.93	8.76	12.2	0.02	0.37	0.53	0.90	0.34	0.17	0.51	—	2,198	2,198	0.09	0.04	0.82	2,214
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.57	0.53	1.60	2.23	< 0.005	0.07	0.10	0.16	0.06	0.03	0.09	—	364	364	0.02	0.01	0.14	367

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

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

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Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.49	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.87
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	1.98	18.8	21.1	0.03	0.88	—	0.88	0.81	—	0.81	—	3,376	3,376	0.14	0.03	—	3,387

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	—	74.0	74.0	< 0.005	< 0.005	—	74.2
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114

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Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.43
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406

Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.91	0.76	7.07	8.26	0.01	0.31	—	0.31	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.17	0.14	1.29	1.51	< 0.005	0.06	—	0.06	0.05	—	0.05	—	250	250	0.01	< 0.005	—	251
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.44	0.28	4.87	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	611	611	0.03	0.02	2.48	621
Vendor	0.01	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.41	168
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.36	0.37	3.67	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	538	538	0.04	0.02	0.06	546
Vendor	0.01	0.01	0.29	0.12	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	161	161	< 0.005	0.02	0.01	168
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.21	2.35	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	349	349	0.02	0.01	0.67	355
Vendor	0.01	0.01	0.18	0.07	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.11	106

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Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.43	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	57.8	57.8	< 0.005	< 0.005	0.11	58.7
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.8	16.8	< 0.005	< 0.005	0.02	17.5
Hauling	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

3.7. Paving (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	6.87	8.89	0.01	0.33	—	0.33	0.30	—	0.30	—	1,351	1,351	0.05	0.01	—	1,355
Paving	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.34	0.44	< 0.005	0.02	—	0.02	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—49	—

Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.02	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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
Hauling	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

3.9. Architectural Coating (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	35.8	35.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	1.76	1.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.32	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.73	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.46	5.46	< 0.005	< 0.005	0.01	5.55
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.90	0.90	< 0.005	< 0.005	< 0.005	0.92
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/8/2024	5.00	5.00	—
Grading	Grading	1/9/2024	1/18/2024	5.00	8.00	—
Building Construction	Building Construction	1/18/2024	12/4/2024	5.00	230	—
Paving	Paving	12/5/2024	12/30/2024	5.00	18.0	—

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Architectural Coating	Architectural Coating	12/5/2024	12/30/2024	5.00	18.0	—
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5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

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5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	72.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	10.7	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	14.4	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	194,400	64,800	0.00	0.00	6,192

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	7.50	0.00	—
Grading	0.00	0.00	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	0.55	100%
Parking Lot	2.37	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Multifamily Residential Build
Characteristics: Utility Information	defaults
Land Use	100 Multi-family Residential Units, Balance Parking (Asphalt)
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Multi-family
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	—
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP - Commercial Build - Unmitigated Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Commercial Build - Unmitigated
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
Strip Mall	65.0	1000sqft	1.50	65,000	0.00	0.00	256	0
Parking Lot	3.50	Acre	3.50	0.00	0.00	0.00	—	0

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.58	1.34	11.6	14.6	0.02	0.50	0.19	0.69	0.46	0.05	0.51	—	2,734	2,734	0.11	0.05	1.13	2,753
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	22.0	21.8	36.0	36.1	0.06	1.60	7.79	9.39	1.47	3.97	5.44	—	6,201	6,201	0.26	0.08	0.04	6,232
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.19	2.00	8.60	10.5	0.02	0.37	0.30	0.67	0.34	0.11	0.46	—	1,946	1,946	0.08	0.03	0.33	1,958
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.40	0.37	1.57	1.92	< 0.005	0.07	0.05	0.12	0.06	0.02	0.08	—	322	322	0.01	0.01	0.05	324

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

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

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Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.49	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.87
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	1.98	18.8	21.1	0.03	0.88	—	0.88	0.81	—	0.81	—	3,376	3,376	0.14	0.03	—	3,387

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	—	74.0	74.0	< 0.005	< 0.005	—	74.2
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114

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Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.43
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406

Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.07	8.26	0.01	0.31	—	0.31	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.29	1.51	< 0.005	0.06	—	0.06	0.05	—	0.05	—	250	250	0.01	< 0.005	—	251
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.08	1.41	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	177	177	0.01	0.01	0.72	179
Vendor	0.01	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.41	167
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.06	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	155	155	0.01	0.01	0.02	158
Vendor	0.01	0.01	0.29	0.12	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.01	167
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.68	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.19	102
Vendor	0.01	0.01	0.18	0.07	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.11	105

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Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.02	17.4
Hauling	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

3.7. Paving (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	6.87	8.89	0.01	0.33	—	0.33	0.30	—	0.30	—	1,351	1,351	0.05	0.01	—	1,355
Paving	0.51	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.34	0.44	< 0.005	0.02	—	0.02	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—66	—

Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.02	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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
Hauling	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

3.9. Architectural Coating (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	20.3	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	1.00	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	0.18	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	< 0.005	31.5
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	< 0.005	1.60
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/8/2024	5.00	5.00	—
Grading	Grading	1/9/2024	1/18/2024	5.00	8.00	—
Building Construction	Building Construction	1/18/2024	12/4/2024	5.00	230	—
Paving	Paving	12/5/2024	12/30/2024	5.00	18.0	—

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Architectural Coating	Architectural Coating	12/5/2024	12/30/2024	5.00	18.0	—
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5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

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5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.8	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	10.7	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.16	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	0.00	0.00	97,500	32,500	9,148

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	7.50	0.00	—
Grading	0.00	0.00	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	3.50

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Strip Mall	0.00	100%
Parking Lot	3.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Multifamily Residential Build
Characteristics: Utility Information	defaults
Land Use	65,000 sq ft commercial/retail on 5 acres
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Commercial Build
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors , Tier 4 of Equivalent for PM Exhaust
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP Demolition and Earthwork - Unmitigated Criteria Pollutants Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP Demolition and Earthwork - Unmitigated Criteria Pollutants
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2024	4.74	3.91	61.1	35.3	0.21	1.89	9.79	11.7	1.78	3.12	4.89
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2024	0.59	0.49	6.65	4.55	0.02	0.22	0.97	1.20	0.21	0.29	0.49
Annual	—	—	—	—	—	—	—	—	—	—	—
2024	0.11	0.09	1.21	0.83	< 0.005	0.04	0.18	0.22	0.04	0.05	0.09

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.41	2.86	26.6	28.5	0.04	1.18	—	1.18	1.09	—	1.09
Demolition	—	—	—	—	—	—	2.35	2.35	—	0.36	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.46	1.56	< 0.005	0.06	—	0.06	0.06	—	0.06
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	Appendix C	—	—	—	—	—	—	—	—	—	77—

Off-Road Equipment	0.03	0.03	0.27	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	4.07	0.80	0.02	0.06	0.78	0.84	0.06	0.21	0.27
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.22	0.04	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	4.16	3.50	34.0	31.4	0.06	1.46	—	1.46	1.34	—	1.34
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	2.80	2.58	0.01	0.12	—	0.12	0.11	—	0.11
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.51	0.47	< 0.005	0.02	—	0.02	0.02	—	0.02
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.48	0.33	27.0	2.95	0.15	0.43	6.06	6.50	0.43	1.66	2.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.03	2.17	0.24	0.01	0.04	0.49	0.52	0.04	0.13	0.17

Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.40	0.04	< 0.005	0.01	0.09	0.10	0.01	0.02	0.03

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Grading	Grading	2/15/2024	3/27/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	158	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	10.3	LDA,LDT1,LDT2
Demolition	Vendor	—	4.50	HHDT,MHDT
Demolition	Hauling	42.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	54.1	121	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,364	—
Grading Appendix C	0.00	12,971	90.0	0.00	— 81

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%
Parking Lot	6.80	100%
Industrial Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Demolition and Soil Import - Export
Characteristics: Utility Information	Chico CCA
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.

Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Demolition and Grading/Soil Excavation
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors, with Tier 4 or Equivalent (Tier 3 with Level 3 VDECS) for PM exhaust control
Construction: Dust From Material Movement	—
Construction: Trips and VMT	Haul of arsenic impacted soil to Potrero Hills Landfill in Suisun City (130 miles one-way, 116 within Sacramento Valley Air Basin). Haul of lead impacted soils to Disposal facility in Arlington, OR (521 miles one-way, 121 within Sacramento Valley Air Basin). Worst-case haul modeled.

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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP Demolition and Earthwork - Unmitigated GHG
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
City Park	3.00	Acre	3.00	0.00	0.00	0.00	—	Stormwater Basin
Parking Lot	6.80	Acre	6.80	296,208	0.00	0.00	—	Asphalt Areas to be Removed

Appendix C

Industrial Park	0.00	1000sqft	7.40	0.00	0.00	0.00	—	Contaminated Soil Areas
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—
2024	—	105,118	105,118	0.92	15.6	5.77	109,797
Average Daily	—	—	—	—	—	—	—
2024	—	9,067	9,067	0.09	1.31	8.07	9,468
Annual	—	—	—	—	—	—	—
2024	—	1,501	1,501	0.01	0.22	1.34	1,568

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	4,677	4,677	0.19	0.04	—	4,694
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Appendix C

Off-Road Equipment	—	256	256	0.01	< 0.005	—	257
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	42.4	42.4	< 0.005	< 0.005	—	42.6
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	112	112	0.01	< 0.005	0.01	114
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	3,007	3,007	0.02	0.48	0.17	3,150
Average Daily	—	—	—	—	—	—	—
Worker	—	6.32	6.32	< 0.005	< 0.005	0.01	6.42
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	165	165	< 0.005	0.03	0.16	173
Annual	—	—	—	—	—	—	—
Worker	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.06
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	27.3	27.3	< 0.005	< 0.005	0.03	28.6

3.3. Grading (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Off-Road Equipment	—	6,874	6,874	0.28	0.06	—	6,897
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	565	565	0.02	< 0.005	—	567
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	93.5	93.5	< 0.005	< 0.005	—	93.9
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	131	131	0.01	0.01	0.02	133
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	98,114	98,114	0.63	15.5	5.75	102,767
Average Daily	—	—	—	—	—	—	—
Worker	—	11.1	11.1	< 0.005	< 0.005	0.02	11.2
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	8,064	8,064	0.05	1.28	7.88	8,454
Annual	—	—	—	—	—	—	—
Worker	—	1.83	1.83	< 0.005	< 0.005	< 0.005	1.86
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	1,335	1,335	0.01	0.21	1.31	1,400

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Grading	Grading	2/15/2024	3/27/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	158	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition Appendix C	Worker	15.0	10.3	LDA,LDT1,LDT2 90

Demolition	Vendor	—	4.50	HHDT,MHDT
Demolition	Hauling	42.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	54.1	521	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,364	—
Grading	0.00	12,971	90.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area Appendix C	2	61%	61%

Water Demolished Area	2	36%	36%
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8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Demolition and Soil Import - Export
Characteristics: Utility Information	Chico CCA
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Demolition and Grading/Soil Excavation
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors, with Tier 4 or Equivalent (Tier 3 with Level 3 VDECS) for PM exhaust control
Construction: Dust From Material Movement	—
Construction: Trips and VMT	Haul of arsenic impacted soil to Potrero Hills Landfill in Suisun City (130 miles one-way). Haul of lead impacted soils to Disposal facility in Arlington, OR (521 miles one-way). Worst-case haul modeled.

Calendar Year 2024, Statewide Average -Tier 3 and Tier 4- Average Annual Offroad Equipment Emission Factors (grams per horsepower-hour)

Off-Road Equipment Type	HP Bin	Low HP	High HP	TOG	ROG	NOx	CO	SOx	PM10	PM2.5	CO2
Air Compressor	50	25	50	0.292	0.245	3.780	3.945	0.005	0.127	0.117	577.46
Air Compressor	75	50	75	0.220	0.185	2.600	3.376	0.005	0.048	0.044	519.43
Air Compressor	100	75	100	0.143	0.120	1.583	3.470	0.005	0.115	0.106	519.43
Air Compressor	175	100	175	0.117	0.099	0.937	2.919	0.005	0.036	0.033	519.43
Air Compressor	300	175	300	0.121	0.102	0.852	1.001	0.005	0.032	0.029	519.43
Air Compressor	600	300	600	0.131	0.110	0.926	0.988	0.005	0.036	0.033	519.43
Bore/Drill Rigs	75	50	75	0.300	0.252	2.907	3.384	0.005	0.066	0.060	575.17
Bore/Drill Rigs	100	75	100	0.209	0.175	1.930	3.329	0.005	0.143	0.131	573.87
Bore/Drill Rigs	175	100	175	0.201	0.169	1.155	2.965	0.005	0.053	0.049	513.08
Bore/Drill Rigs	300	175	300	0.217	0.182	1.217	1.026	0.005	0.049	0.045	511.89
Bore/Drill Rigs	600	300	600	0.205	0.172	1.096	0.982	0.005	0.049	0.045	507.34
Concrete/Industrial Saws	50	25	50	0.251	0.208	2.543	2.930	0.005	0.041	0.038	426.12
Cranes	175	100	175	0.158	0.133	1.091	3.131	0.006	0.046	0.042	654.61
Cranes	300	175	300	0.133	0.112	0.848	1.094	0.005	0.031	0.029	552.78
Cranes	600	300	600	0.130	0.109	0.840	1.012	0.005	0.034	0.031	531.10
Crawler Tractors	100	75	100	0.144	0.121	1.520	3.294	0.006	0.109	0.100	610.44
Crawler Tractors	175	100	175	0.169	0.142	1.004	2.940	0.005	0.042	0.038	518.79
Crawler Tractors	300	175	300	0.156	0.131	0.730	1.020	0.005	0.030	0.028	518.24
Crawler Tractors	600	300	600	0.163	0.137	0.844	0.976	0.005	0.037	0.034	505.69
Excavators	50	25	50	0.392	0.330	3.330	3.955	0.005	0.096	0.089	571.71
Excavators	75	50	75	0.298	0.250	2.899	3.386	0.005	0.045	0.041	572.84
Excavators	100	75	100	0.169	0.142	1.765	3.342	0.005	0.128	0.118	574.69
Excavators	175	100	175	0.197	0.166	1.044	3.052	0.005	0.041	0.038	514.33
Excavators	300	175	300	0.195	0.164	0.905	1.036	0.005	0.037	0.034	514.12
Excavators	600	300	600	0.184	0.155	0.736	0.999	0.005	0.034	0.031	512.84
Forklifts	50	25	50	0.258	0.217	3.035	3.279	0.005	0.063	0.058	571.45
Forklifts	75	50	75	0.231	0.194	2.835	3.249	0.005	0.027	0.025	574.77
Forklifts	100	75	100	0.134	0.113	1.572	3.216	0.006	0.107	0.099	596.44
Forklifts	175	100	175	0.163	0.137	1.035	2.906	0.005	0.039	0.036	514.43
Forklifts	300	175	300	0.131	0.110	0.584	1.039	0.005	0.023	0.021	531.78
Generator	50	25	50	0.576	0.484	3.556	5.835	0.005	0.089	0.082	577.46
Generator	75	50	75	0.354	0.298	2.742	3.796	0.005	0.048	0.044	519.43
Generator	100	75	100	0.204	0.172	1.572	3.835	0.005	0.129	0.119	519.43
Generator	175	100	175	0.214	0.180	1.096	3.333	0.005	0.054	0.050	519.43
Generator	300	175	300	0.232	0.195	1.110	1.148	0.005	0.048	0.044	519.43
Generator	600	300	600	0.209	0.176	0.854	1.080	0.005	0.040	0.037	519.43
Graders	175	100	175	0.140	0.117	0.711	2.883	0.006	0.033	0.030	583.68
Graders	300	175	300	0.154	0.130	0.882	1.008	0.005	0.034	0.031	520.10
Graders	600	300	600	0.158	0.132	0.822	0.971	0.005	0.038	0.035	514.25
Non-Rental Other	50	25	50	0.233	0.196	3.254	3.555	0.005	0.077	0.071	577.46
Non-Rental Other	75	50	75	0.177	0.149	2.559	3.242	0.005	0.049	0.045	519.43
Non-Rental Other	100	75	100	0.118	0.099	1.619	3.292	0.005	0.110	0.101	519.43
Non-Rental Other	175	100	175	0.112	0.094	1.017	2.884	0.005	0.039	0.036	519.43
Non-Rental Other	300	175	300	0.125	0.105	0.930	1.002	0.005	0.034	0.031	519.43
Non-Rental Other	600	300	600	0.118	0.099	0.755	0.979	0.005	0.031	0.029	519.43
Off-Highway Tractors	50	25	50	0.442	0.371	3.655	4.342	0.006	0.111	0.102	593.35
Off-Highway Tractors	75	50	75	0.332	0.279	2.907	3.505	0.006	0.071	0.065	601.75
Off-Highway Tractors	100	75	100	0.227	0.191	1.948	3.438	0.005	0.144	0.133	573.71
Off-Highway Tractors	175	100	175	0.239	0.201	1.183	3.173	0.005	0.054	0.049	513.42
Off-Highway Tractors	300	175	300	0.211	0.177	0.873	1.059	0.005	0.038	0.035	510.76
Off-Highway Tractors	600	300	600	0.212	0.178	0.781	1.010	0.005	0.038	0.035	503.99
Off-Highway Trucks	175	100	175	0.244	0.205	1.395	3.013	0.005	0.080	0.073	513.85
Off-Highway Trucks	300	175	300	0.196	0.165	0.831	1.038	0.005	0.037	0.034	512.16
Off-Highway Trucks	600	300	600	0.204	0.171	0.759	1.015	0.005	0.036	0.033	511.00
Pavers	50	25	50	0.310	0.260	3.229	3.606	0.006	0.067	0.062	586.38
Pavers	75	50	75	0.264	0.221	2.871	3.318	0.006	0.054	0.050	582.69
Pavers	100	75	100	0.206	0.173	2.000	3.267	0.005	0.145	0.133	578.11
Pavers	175	100	175	0.170	0.143	0.921	2.994	0.005	0.037	0.034	514.51
Pavers	300	175	300	0.193	0.162	1.012	1.019	0.005	0.040	0.037	514.16
Pavers	600	300	600	0.191	0.161	0.981	0.978	0.005	0.044	0.041	510.39
Paving Equipment	50	25	50	0.346	0.291	3.280	3.758	0.006	0.087	0.080	583.29
Paving Equipment	75	50	75	0.262	0.220	2.873	3.287	0.005	0.056	0.051	571.45
Paving Equipment	100	75	100	0.182	0.153	1.749	3.361	0.006	0.120	0.111	628.35
Paving Equipment	175	100	175	0.196	0.165	1.118	3.017	0.005	0.049	0.045	515.87
Paving Equipment	300	175	300	0.192	0.161	1.031	1.029	0.005	0.042	0.038	516.22

Calendar Year 2024, Statewide Average -Tier 3 and Tier 4- Average Annual Offroad Equipment Emission Factors (grams per horsepower-hour)

Off-Road Equipment Type	HP Bin	Low HP	High HP	TOG	ROG	NOx	CO	SOx	PM10	PM2.5	CO2
Paving Equipment	600	300	600	0.180	0.152	0.762	0.996	0.005	0.038	0.035	512.17
Pump	50	25	50	0.242	0.204	3.039	3.614	0.005	0.066	0.061	577.46
Pump	75	50	75	0.181	0.152	2.565	3.255	0.005	0.049	0.046	519.43
Pump	100	75	100	0.125	0.105	1.760	3.286	0.005	0.115	0.106	519.43
Pump	175	100	175	0.119	0.100	1.189	2.890	0.005	0.047	0.044	519.43
Pump	300	175	300	0.110	0.093	0.745	0.990	0.005	0.028	0.026	519.43
Pump	600	300	600	0.117	0.099	1.044	0.963	0.005	0.042	0.039	519.43
Rollers	50	25	50	0.327	0.275	3.267	3.694	0.006	0.081	0.074	595.99
Rollers	75	50	75	0.253	0.213	2.855	3.297	0.005	0.035	0.032	576.19
Rollers	100	75	100	0.158	0.132	1.626	3.296	0.006	0.116	0.107	603.46
Rollers	175	100	175	0.181	0.152	1.027	2.976	0.005	0.043	0.040	515.91
Rollers	300	175	300	0.146	0.123	0.604	1.125	0.005	0.025	0.023	536.01
Rollers	600	300	600	0.159	0.134	0.743	0.990	0.005	0.033	0.031	501.40
Rubber Tired Dozers	100	75	100	0.140	0.118	1.325	3.371	0.006	0.102	0.094	623.94
Rubber Tired Dozers	175	100	175	0.175	0.147	0.869	2.984	0.005	0.035	0.032	517.00
Rubber Tired Dozers	300	175	300	0.154	0.129	0.425	1.073	0.005	0.021	0.019	517.15
Rubber Tired Dozers	600	300	600	0.137	0.115	0.588	0.970	0.004	0.027	0.024	448.31
Rubber Tired Loaders	50	25	50	0.408	0.343	3.381	4.163	0.006	0.095	0.087	620.99
Rubber Tired Loaders	75	50	75	0.305	0.256	2.900	3.446	0.006	0.050	0.046	592.87
Rubber Tired Loaders	100	75	100	0.179	0.151	1.677	3.363	0.006	0.127	0.117	591.81
Rubber Tired Loaders	175	100	175	0.209	0.176	1.108	3.021	0.005	0.050	0.046	516.46
Rubber Tired Loaders	300	175	300	0.194	0.163	0.793	1.054	0.005	0.033	0.031	514.16
Rubber Tired Loaders	600	300	600	0.191	0.160	0.752	1.007	0.005	0.036	0.033	510.16
Scrapers	300	175	300	0.142	0.119	0.866	1.203	0.005	0.031	0.029	554.41
Scrapers	600	300	600	0.111	0.093	0.519	1.035	0.005	0.021	0.019	481.00
Signal Boards	50	25	50	0.260	0.215	2.728	3.110	0.006	0.042	0.038	459.43
Skid Steer Loaders	50	25	50	0.329	0.277	3.226	3.676	0.006	0.080	0.073	587.32
Skid Steer Loaders	75	50	75	0.278	0.234	2.880	3.342	0.005	0.043	0.039	573.01
Skid Steer Loaders	100	75	100	0.174	0.146	1.876	3.300	0.005	0.136	0.125	572.40
Skid Steer Loaders	175	100	175	0.169	0.142	0.900	3.030	0.005	0.027	0.025	514.66
Skid Steer Loaders	300	175	300	0.190	0.160	0.810	1.027	0.005	0.035	0.032	514.03
Surfacing Equipment	50	25	50	0.346	0.290	3.437	4.132	0.007	0.078	0.072	724.17
Surfacing Equipment	75	50	75	0.316	0.266	2.900	3.661	0.006	0.046	0.043	666.11
Surfacing Equipment	100	75	100	0.235	0.197	1.828	3.785	0.007	0.133	0.123	772.90
Surfacing Equipment	175	100	175	0.230	0.193	1.349	3.022	0.005	0.070	0.065	517.54
Surfacing Equipment	300	175	300	0.205	0.172	1.049	1.124	0.005	0.044	0.041	527.56
Surfacing Equipment	600	300	600	0.192	0.161	0.862	1.009	0.005	0.041	0.037	513.06
Tractors/Loaders/Backhoes	50	25	50	0.347	0.292	3.340	3.862	0.006	0.083	0.076	616.87
Tractors/Loaders/Backhoes	75	50	75	0.277	0.233	2.877	3.373	0.006	0.040	0.037	586.36
Tractors/Loaders/Backhoes	100	75	100	0.172	0.145	1.733	3.293	0.005	0.127	0.117	577.30
Tractors/Loaders/Backhoes	175	100	175	0.196	0.164	1.089	3.031	0.005	0.043	0.040	516.20
Tractors/Loaders/Backhoes	300	175	300	0.183	0.154	0.798	1.033	0.005	0.033	0.030	515.03
Tractors/Loaders/Backhoes	600	300	600	0.176	0.148	0.716	0.991	0.005	0.034	0.031	512.02
Trenchers	50	25	50	0.282	0.237	3.188	3.434	0.006	0.071	0.066	584.46
Trenchers	75	50	75	0.233	0.196	2.822	3.333	0.006	0.040	0.037	616.32
Trenchers	100	75	100	0.118	0.099	1.198	3.232	0.006	0.094	0.087	594.79
Trenchers	175	100	175	0.153	0.128	0.913	2.884	0.005	0.039	0.036	522.57
Trenchers	300	175	300	0.140	0.118	0.601	1.014	0.005	0.025	0.023	518.90
Trenchers	600	300	600	0.197	0.165	1.313	0.966	0.005	0.057	0.052	503.16

Source: California Air Resources Board (CARB). 2023. OFFROAD2021 (v1.0.5) Emissions Inventory Available: <https://arb.ca.gov/emfac/offroad/> Accessed: December 2023.

BYSP - Single Family Detached Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Single Family Detached
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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
Single Family Housing	50.0	Dwelling Unit	16.2	97,500	585,643	0.00	128	0
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.94	0.80	6.26	9.86	0.02	0.11	0.15	0.26	0.11	0.04	0.14	—	2,247	2,247	0.09	0.03	0.83	2,260
2025	0.92	30.6	6.20	10.4	0.02	0.11	0.15	0.26	0.10	0.04	0.14	—	2,243	2,243	0.09	0.03	0.77	2,255
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.79	1.51	9.09	20.7	0.06	0.13	7.79	7.89	0.13	3.97	4.07	—	6,539	6,539	0.29	0.06	0.02	6,564
2025	0.90	0.76	6.23	9.48	0.02	0.11	0.15	0.26	0.10	0.04	0.14	—	2,225	2,225	0.09	0.03	0.02	2,237
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.75	0.63	4.77	7.93	0.02	0.08	0.61	0.69	0.08	0.25	0.33	—	2,022	2,022	0.08	0.03	0.24	2,032
2025	0.24	1.88	1.73	2.68	0.01	0.03	0.04	0.07	0.03	0.01	0.04	—	592	592	0.02	0.01	0.09	595
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.12	0.87	1.45	< 0.005	0.01	0.11	0.13	0.01	0.05	0.06	—	335	335	0.01	< 0.005	0.04	336
2025	0.04	0.34	0.32	0.49	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.01	—	98.0	98.0	< 0.005	< 0.005	0.01	98.5

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	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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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.21	8.36	14.8	0.04	0.10	—	0.10	0.10	—	0.10	—	4,748	4,748	0.21	0.04	—	4,766
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.23	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	130	130	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.5	21.5	< 0.005	< 0.005	—	21.6
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.75
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.69	1.42	9.00	19.9	0.06	0.13	—	0.13	0.13	—	0.13	—	6,408	6,408	0.28	0.06	—	6,431

Appendix C

100

Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.74	1.63	< 0.005	0.01	—	0.01	0.01	—	0.01	—	527	527	0.02	< 0.005	—	529
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	87.2	87.2	< 0.005	< 0.005	—	87.5
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	0.02	11.2
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.83	1.83	< 0.005	< 0.005	< 0.005	1.86
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.68	6.05	8.59	0.02	0.11	—	0.11	0.10	—	0.10	—	2,014	2,014	0.08	0.02	—	2,021
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.68	6.05	8.59	0.02	0.11	—	0.11	0.10	—	0.10	—	2,014	2,014	0.08	0.02	—	2,021
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.49	0.41	3.66	5.19	0.01	0.07	—	0.07	0.06	—	0.06	—	1,218	1,218	0.05	0.01	—	1,222
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.67	0.95	< 0.005	0.01	—	0.01	0.01	—	0.01	—	202	202	0.01	< 0.005	—	202
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.07	1.22	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	153	153	0.01	0.01	0.62	155
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.21	83.9
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.92	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.02	136
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.01	83.9
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	83.7	83.7	0.01	< 0.005	0.16	85.1
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.5	48.5	< 0.005	0.01	0.05	50.7
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.03	14.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.04	8.04	< 0.005	< 0.005	0.01	8.39
Hauling	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

Appendix C

3.7. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.01	8.58	0.02	0.10	—	0.10	0.10	—	0.10	—	2,014	2,014	0.08	0.02	—	2,021
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.01	8.58	0.02	0.10	—	0.10	0.10	—	0.10	—	2,014	2,014	0.08	0.02	—	2,021
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.15	1.31	1.86	< 0.005	0.02	—	0.02	0.02	—	0.02	—	438	438	0.02	< 0.005	—	439
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.4	72.4	< 0.005	< 0.005	—	72.7
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.06	1.13	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	150	150	0.01	0.01	0.57	152
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.8	78.8	< 0.005	0.01	0.20	82.4
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	0.85	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	134
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.9	78.9	< 0.005	0.01	0.01	82.4
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.5	29.5	< 0.005	< 0.005	0.05	29.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.02	17.9
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.88	4.88	< 0.005	< 0.005	0.01	4.96
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.96
Hauling	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

3.9. Paving (2025) - Unmitigated

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

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

Off-Road Equipment	0.61	0.51	5.95	9.50	0.02	0.06	—	0.06	0.06	—	0.06	—	1,691	1,691	0.06	0.01	—	1,697
Paving	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.33	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	92.7	92.7	< 0.005	< 0.005	—	93.0
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	0.94	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	125	125	0.01	< 0.005	0.47	127
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.19	6.19	< 0.005	< 0.005	0.01	6.29
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.04
Vendor	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
Hauling	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

3.11. Architectural Coating (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.89	0.93	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	136
Architect ural Coatings	—	30.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.43	7.43	< 0.005	< 0.005	—	7.46
Architect ural Coatings	—	1.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.23	1.23	< 0.005	< 0.005	—	1.23
Architectural Coatings	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.9	29.9	< 0.005	< 0.005	0.11	30.4
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.51
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/15/2024	5.00	10.0	—
Grading	Grading	1/16/2024	2/26/2024	5.00	30.0	—
Building Construction	Building Construction	2/27/2024	4/21/2025	5.00	300	—
Paving	Paving	4/22/2025	5/19/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	5/20/2025	6/16/2025	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45

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Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	5.34	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.60	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	197,438	65,813	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.55

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
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Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.55	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Single Family Residential Build
Characteristics: Utility Information	defaults
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes

Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Single Family Housing Defaults
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors (2024 factors for all years), Tier 4 or Level 3 VDECs for PM Exhaust
Construction: Dust From Material Movement	—
Construction: Paving	asphalt driveways

BYSP - Single Family Attached Build Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Single Family Attached Build
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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
Condo/Townhouse	50.0	Dwelling Unit	3.13	53,000	0.00	0.00	128	0

Parking Lot	1.88	Acre	1.88	0.00	0.00	0.00	—	0
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.17	1.00	7.69	13.9	0.03	0.12	0.28	0.40	0.11	0.07	0.18	—	2,918	2,918	0.11	0.04	1.45	2,935
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.54	1.30	8.46	15.6	0.04	0.12	7.79	7.89	0.11	3.97	4.07	—	4,879	4,879	0.22	0.05	0.04	4,899
2025	0.76	18.4	6.48	9.32	0.01	0.07	0.15	0.22	0.12	0.03	0.16	—	1,594	1,594	0.07	0.02	0.02	1,601
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.82	0.70	5.45	9.63	0.02	0.08	0.54	0.63	0.08	0.22	0.30	—	2,140	2,140	0.09	0.03	0.41	2,152
2025	0.05	1.06	0.40	0.58	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	98.0	98.0	< 0.005	< 0.005	0.02	98.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.15	0.13	0.99	1.76	< 0.005	0.02	0.10	0.11	0.01	0.04	0.06	—	354	354	0.01	< 0.005	0.07	356
2025	0.01	0.19	0.07	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	< 0.005	16.3

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R ¹¹⁷	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.21	8.37	14.8	0.04	0.10	—	0.10	0.10	—	0.10	—	4,748	4,748	0.21	0.04	—	4,766
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.23	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	130	130	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.5	21.5	< 0.005	< 0.005	—	21.6
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	118

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.75
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	6.24	14.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,279	3,279	0.14	0.03	—	3,291

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Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.34	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	180	180	0.01	< 0.005	—	180
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.8	29.8	< 0.005	< 0.005	—	29.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114
Vendor	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
Hauling	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

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Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.32	6.32	< 0.005	< 0.005	0.01	6.42
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.06
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.59	0.49	4.67	7.17	0.02	0.08	—	0.08	0.07	—	0.07	—	1,595	1,595	0.06	0.01	—	1,601
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	264	264	0.01	< 0.005	—	265
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.14	2.43	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	306	306	0.02	0.01	1.24	311
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.21	83.9
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.19	1.83	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	269	269	0.02	0.01	0.03	273
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.01	83.9
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.10	1.17	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	175	175	0.01	0.01	0.34	177
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.6	50.6	< 0.005	0.01	0.06	52.8
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.9	28.9	< 0.005	< 0.005	0.06	29.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.38	8.38	< 0.005	< 0.005	0.01	8.75
Hauling	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

3.7. Paving (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	6.39	8.37	0.01	0.07	—	0.07	0.12	—	0.12	—	1,448	1,448	0.05	0.01	—	1,453
Paving	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.35	0.46	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	79.3	79.3	< 0.005	< 0.005	—	79.6
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.1	13.1	< 0.005	< 0.005	—	13.2
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.09	0.95	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	146	146	0.01	0.01	0.02	148
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.26	8.26	< 0.005	< 0.005	0.01	8.39
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
Vendor	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
Hauling	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

3.9. Architectural Coating (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.89	0.93	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	136
Architect ural Coatings	—	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.43	7.43	< 0.005	< 0.005	—	7.46
Architectural Coatings	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.23	1.23	< 0.005	< 0.005	—	1.23
Architectural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.01	53.5
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	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

Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.50
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/15/2024	5.00	10.0	—
Grading	Grading	1/16/2024	2/12/2024	5.00	20.0	—
Building Construction	Building Construction	2/13/2024	12/30/2024	5.00	230	—
Paving	Paving	1/1/2025	1/28/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	1/29/2025	2/25/2025	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	36.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	5.34	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.20	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	107,325	35,775	0.00	0.00	4,901

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.88

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	0.00	100%
Parking Lot	1.88	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Single Family Attached Residential Build
Characteristics: Utility Information	defaults
Land Use	65,000 sq ft commercial/retail on 5 acres
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	SF Attached Build on 5 acres
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD2021 Factors , Tier 4 or Level 3 VDECS for PM Exhaust Control
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP - Multifamily Residential Build Custom Report

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5.8. Construction Electricity Consumption and Emissions Factors

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Multifamily Residential Build
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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	100	Dwelling Unit	2.63	96,000	0.00	0.00	256	0

Parking Lot	2.37	Acre	2.37	0.00	0.00	0.00	—	0
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.41	1.23	7.97	16.4	0.03	0.12	0.56	0.69	0.12	0.13	0.25	—	3,303	3,303	0.13	0.07	2.89	3,329
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.43	36.9	14.4	30.2	0.06	0.19	7.79	7.89	0.18	3.97	4.07	—	6,622	6,622	0.28	0.10	0.09	6,658
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.94	2.59	5.64	10.7	0.02	0.08	0.53	0.61	0.08	0.17	0.25	—	2,280	2,280	0.09	0.04	0.82	2,297
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.17	0.47	1.03	1.95	< 0.005	0.02	0.10	0.11	0.01	0.03	0.05	—	378	378	0.02	0.01	0.14	380

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.21	8.36	14.8	0.04	0.10	—	0.10	0.10	—	0.10	—	4,748	4,748	0.21	0.04	—	4,766
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.11	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	65.0	65.0	< 0.005	< 0.005	—	65.3
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.8	10.8	< 0.005	< 0.005	—	10.8
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.87
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	6.24	14.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,279	3,279	0.14	0.03	—	3,291

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Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.9	71.9	< 0.005	< 0.005	—	72.1
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.9	11.9	< 0.005	< 0.005	—	11.9
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114
Vendor	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
Hauling	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.43
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.59	0.49	4.67	7.17	0.02	0.08	—	0.08	0.07	—	0.07	—	1,595	1,595	0.06	0.01	—	1,601
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	264	264	0.01	< 0.005	—	265
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.44	0.28	4.87	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	611	611	0.03	0.02	2.48	621
Vendor	0.01	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.41	168
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.36	0.37	3.67	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	538	538	0.04	0.02	0.06	546
Vendor	0.01	0.01	0.29	0.12	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	161	161	< 0.005	0.02	0.01	168
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.21	2.35	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	349	349	0.02	0.01	0.67	355
Vendor	0.01	0.01	0.18	0.07	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.11	106
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.43	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	57.8	57.8	< 0.005	< 0.005	0.11	58.7
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.8	16.8	< 0.005	< 0.005	0.02	17.5
Hauling	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

3.7. Paving (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	5.44	8.43	0.01	0.07	—	0.07	0.07	—	0.07	—	1,496	1,496	0.05	0.01	—	1,501
Paving	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.27	0.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	73.8	73.8	< 0.005	< 0.005	—	74.0
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.02	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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
Hauling	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

3.9. Architectural Coating (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.89	0.93	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	136
Architect ural Coatings	—	35.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.69	6.69	< 0.005	< 0.005	—	6.71
Architectural Coatings	—	1.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.11
Architectural Coatings	—	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.73	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.46	5.46	< 0.005	< 0.005	0.01	5.55
Vendor	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

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Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.90	0.90	< 0.005	< 0.005	< 0.005	0.92
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/8/2024	5.00	5.00	—
Grading	Grading	1/9/2024	1/18/2024	5.00	8.00	—
Building Construction	Building Construction	1/18/2024	12/4/2024	5.00	230	—
Paving	Paving	12/5/2024	12/30/2024	5.00	18.0	—
Architectural Coating	Architectural Coating	12/5/2024	12/30/2024	5.00	18.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Appendix C Vendor	—	4.50	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	72.0	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	10.7	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	14.4	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	194,400	64,800	0.00	0.00	6,192

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	7.50	0.00	—
Grading	0.00	0.00	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	0.55	100%
Parking Lot	2.37	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

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Characteristics: Project Details	Multifamily Residential Build
Characteristics: Utility Information	defaults
Land Use	100 Multi-family Residential Units, Balance Parking (Asphalt)
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Multi-family
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ EMFAC2021 Factors Unmitigated, Tier 4 or Equivalent for PM Exhaust
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP - Commercial Build Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Commercial Build
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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
Strip Mall	65.0	1000sqft	1.50	65,000	0.00	0.00	256	0

Parking Lot	3.50	Acre	3.50	0.00	0.00	0.00	—	0
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.08	0.92	7.77	12.9	0.03	0.12	0.19	0.31	0.12	0.05	0.16	—	2,868	2,868	0.11	0.05	1.13	2,887
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.14	21.5	14.1	27.6	0.06	0.19	7.79	7.89	0.18	3.97	4.07	—	6,239	6,239	0.26	0.08	0.04	6,269
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.75	1.66	5.48	8.99	0.02	0.08	0.30	0.38	0.08	0.11	0.19	—	2,028	2,028	0.08	0.03	0.33	2,040
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.30	1.00	1.64	< 0.005	0.02	0.05	0.07	0.01	0.02	0.04	—	336	336	0.01	0.01	0.05	338

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.21	8.36	14.8	0.04	0.10	—	0.10	0.10	—	0.10	—	4,748	4,748	0.21	0.04	—	4,766
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.11	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	65.0	65.0	< 0.005	< 0.005	—	65.3
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.8	10.8	< 0.005	< 0.005	—	10.8
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.02	133
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.87
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	6.24	14.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,279	3,279	0.14	0.03	—	3,291

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Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.9	71.9	< 0.005	< 0.005	—	72.1
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.9	11.9	< 0.005	< 0.005	—	11.9
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	114
Vendor	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
Hauling	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

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Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.43
Vendor	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
Hauling	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

3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93	0.78	7.42	11.4	0.03	0.12	—	0.12	0.11	—	0.11	—	2,532	2,532	0.10	0.02	—	2,540
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.59	0.49	4.67	7.17	0.02	0.08	—	0.08	0.07	—	0.07	—	1,595	1,595	0.06	0.01	—	1,601
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	264	264	0.01	< 0.005	—	265
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.08	1.41	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	177	177	0.01	0.01	0.72	179
Vendor	0.01	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.41	167
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.06	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	155	155	0.01	0.01	0.02	158
Vendor	0.01	0.01	0.29	0.12	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	160	160	< 0.005	0.02	0.01	167
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.68	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.19	102
Vendor	0.01	0.01	0.18	0.07	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.11	105
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.02	17.4
Hauling	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

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3.7. Paving (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	5.44	8.43	0.01	0.05	—	0.05	0.05	—	0.05	—	1,496	1,496	0.05	0.01	—	1,501
Paving	—	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.27	0.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	73.8	73.8	< 0.005	< 0.005	—	74.0
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.02	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	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
Hauling	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

3.9. Architectural Coating (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.89	0.93	< 0.005	0.03	—	0.03	0.03	—	0.03	—	136	136	0.01	< 0.005	—	136
Architect ural Coatings	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.69	6.69	< 0.005	< 0.005	—	6.71
Architectural Coatings	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.11
Architectural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	< 0.005	31.5
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	< 0.005	1.60
Vendor	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

Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Vendor	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
Hauling	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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/8/2024	5.00	5.00	—
Grading	Grading	1/9/2024	1/18/2024	5.00	8.00	—
Building Construction	Building Construction	1/18/2024	12/4/2024	5.00	230	—
Paving	Paving	12/5/2024	12/30/2024	5.00	18.0	—
Architectural Coating	Architectural Coating	12/5/2024	12/30/2024	5.00	18.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT

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Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.8	10.3	LDA,LDT1,LDT2
Building Construction	Vendor	10.7	4.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.3	LDA,LDT1,LDT2
Paving	Vendor	—	4.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.16	10.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
Architectural Coating	0.00	0.00	97,500	32,500	9,148

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	7.50	0.00	—
Grading	0.00	0.00	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	3.50

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Strip Mall	0.00	100%
Parking Lot	3.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

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Characteristics: Project Details	Multifamily Residential Build
Characteristics: Utility Information	defaults
Land Use	65,000 sq ft commercial/retail on 5 acres
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Commercial Build
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors , Tier 4 of Equivalent for PM Exhaust
Construction: Dust From Material Movement	—
Construction: Paving	asphalt parking

BYSP Demolition and Earthwork - Criteria Pollutants Custom Report

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5.8. Construction Electricity Consumption and Emissions Factors

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP Demolition and Earthwork - Criteria Pollutants
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
City Park	3.00	Acre	3.00	0.00	0.00	0.00	—	Stormwater Basin
Parking Lot	6.80	Acre	6.80	296,208	0.00	0.00	—	Asphalt Areas to be Removed

Industrial Park	0.00	1000sqft	7.40	0.00	0.00	0.00	—	Contaminated Soil Areas
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2024	2.27	1.84	36.1	23.7	0.21	0.56	9.79	10.4	0.56	3.12	3.68
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2024	0.28	0.23	3.55	2.91	0.02	0.05	0.97	1.03	0.05	0.29	0.34
Annual	—	—	—	—	—	—	—	—	—	—	—
2024	0.05	0.04	0.65	0.53	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.21	7.44	16.0	0.04	0.10	—	0.10	0.10	—	0.10
Demolition	—	—	—	—	—	—	2.35	2.35	—	0.36	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.41	0.87	< 0.005	0.01	—	0.01	0.01	—	0.01
Demolition	—	—	—	—	—	—	0.13	0.13	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.76	0.00	0.00	0.11	0.11	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	4.07	0.80	0.02	0.06	0.78	0.84	0.06	0.21	0.27
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.22	0.04	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.69	1.42	9.00	19.9	0.06	0.13	—	0.13	0.13	—	0.13
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.74	1.63	< 0.005	0.01	—	0.01	0.01	—	0.01
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

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Worker	0.10	0.09	0.09	0.89	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.48	0.33	27.0	2.95	0.15	0.43	6.06	6.50	0.43	1.66	2.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.03	2.17	0.24	0.01	0.04	0.49	0.52	0.04	0.13	0.17
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.40	0.04	< 0.005	0.01	0.09	0.10	0.01	0.02	0.03

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Grading	Grading	2/15/2024	3/27/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	158	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38

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Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	10.3	LDA,LDT1,LDT2
Demolition	Vendor	—	4.50	HHDT,MHDT
Demolition	Hauling	42.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	54.1	121	HHDT
Grading	Onsite truck	—	—	HHDT

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,364	—
Grading	0.00	12,971	90.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%
Parking Lot	6.80	100%
Industrial Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Demolition and Soil Import - Export
Characteristics: Utility Information	Chico CCA
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.

Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Demolition and Grading/Soil Excavation
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors, with Tier 4 or Equivalent (Tier 3 with Level 3 VDECS) for PM exhaust control
Construction: Dust From Material Movement	—
Construction: Trips and VMT	Haul of lead impacted soils to Disposal facility in Arlington, OR (521 miles one-way, 121 within Sacramento Valley Air Basin). Worst-case haul modeled.

BYSP Demolition and Earthwork - GHG Custom Report

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5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP Demolition and Earthwork - GHG
Construction Start Date	1/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

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
City Park	3.00	Acre	3.00	0.00	0.00	0.00	—	Stormwater Basin
Parking Lot	6.80	Acre	6.80	296,208	0.00	0.00	—	Asphalt Areas to be Removed

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Industrial Park	0.00	1000sqft	7.40	0.00	0.00	0.00	—	Contaminated Soil Areas
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2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

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

Year	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—
2024	—	104,652	104,652	0.92	15.6	5.77	109,331
Average Daily	—	—	—	—	—	—	—
2024	—	8,999	8,999	0.09	1.31	8.07	9,400
Annual	—	—	—	—	—	—	—
2024	—	1,490	1,490	0.01	0.22	1.34	1,556

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	4,136	4,136	0.19	0.04	—	4,152
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

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Off-Road Equipment	—	227	227	0.01	< 0.005	—	228
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	37.5	37.5	< 0.005	< 0.005	—	37.7
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	112	112	0.01	< 0.005	0.01	114
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	3,007	3,007	0.02	0.48	0.17	3,150
Average Daily	—	—	—	—	—	—	—
Worker	—	6.32	6.32	< 0.005	< 0.005	0.01	6.42
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	165	165	< 0.005	0.03	0.16	173
Annual	—	—	—	—	—	—	—
Worker	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.06
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	27.3	27.3	< 0.005	< 0.005	0.03	28.6

3.3. Grading (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

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Off-Road Equipment	—	6,408	6,408	0.28	0.06	—	6,431
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	527	527	0.02	< 0.005	—	529
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	87.2	87.2	< 0.005	< 0.005	—	87.5
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	131	131	0.01	0.01	0.02	133
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	98,114	98,114	0.63	15.5	5.75	102,767
Average Daily	—	—	—	—	—	—	—
Worker	—	11.1	11.1	< 0.005	< 0.005	0.02	11.2
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	8,064	8,064	0.05	1.28	7.88	8,454
Annual	—	—	—	—	—	—	—
Worker	—	1.83	1.83	< 0.005	< 0.005	< 0.005	1.86
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	1,335	1,335	0.01	0.21	1.31	1,400

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/30/2024	5.00	20.0	—
Grading	Grading	2/15/2024	3/27/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	158	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	158	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition Appendix C	Worker	15.0	10.3	LDA,LDT1,LDT2 181

Demolition	Vendor	—	4.50	HHDT,MHDT
Demolition	Hauling	42.0	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	10.3	LDA,LDT1,LDT2
Grading	Vendor	—	4.50	HHDT,MHDT
Grading	Hauling	54.1	521	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	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)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,364	—
Grading	0.00	12,971	90.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area Appendix C	2	61%	61%

Water Demolished Area	2	36%	36%
-----------------------	---	-----	-----

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Demolition and Soil Import - Export
Characteristics: Utility Information	Chico CCA
Land Use	City Park = Off-Site Stormwater Basin Parking = Asphalt Removal Areas Industrial Park - Contaminated Soil Removal Areas
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	None
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition.
Operations: Consumer Products	City of Chico, Mike Sawley Upated Consumer Product EF
Construction: Construction Phases	Demolition and Grading/Soil Excavation
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ OFFROAD 2021 Factors, with Tier 4 or Equivalent (Tier 3 with Level 3 VDECS) for PM exhaust control
Construction: Dust From Material Movement	—
Construction: Trips and VMT	Haul of arsenic impacted soil to Potrero Hills Landfill in Suisun City (130 miles one-way). Haul of lead impacted soils to Disposal facility in Arlington, OR (521 miles one-way).Worst-case haul modeled.

Barber Yard Specific Plan - Fleet Mix Adjustment

Location		FHWA Vehicle Classification													Total Volume
		1	2	3	4	5	6	7	8	9	10	11	12	13	
Park Ave, Between 12th St & 13th St	Total	466	34,943	8,867	21	4,839	244	0	97	117	124	19	7	79	49,823
	Percent	0.9%	70.1%	17.8%	0.0%	9.7%	0.5%	0.0%	0.2%	0.2%	0.2%	0.0%	0.0%	0.2%	100%
W 16th St, Between Park Ave & Oakdale St	Total	91	3,328	754	1	231	19	0	2	2	0	0	0	0	4,428
	Percent	2.1%	75.2%	17.0%	0.0%	5.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Ivy St, Between 10th St & 11th St	Total	341	11,050	1,220	3	177	25	0	0	0	0	1	0	0	12,817
	Percent	2.7%	86.2%	9.5%	0.0%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Rio Linda Ave, North of Cohasset Rd	Total	94	9,845	2,116	2	1,021	36	0	4	7	1	0	0	0	13,126
	Percent	0.7%	75.0%	16.1%	0.0%	7.8%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
East Rd, Between Pillsbury Rd & Cohasset Rd	Total	268	32,403	9,904	7	5,254	183	0	70	73	39	8	0	11	48,220
	Percent	0.6%	67.2%	20.5%	0.0%	10.9%	0.4%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	100%
Average	Percent	1.4%	74.742%	16.201%	0.024%	6.997%	0.354%	0.000%	0.083%	0.097%	0.067%	0.013%	0.003%	0.036%	100.0%

Default fleet mix was adjusted to reflect the relative proportions of vehicle classes that were tallied in the May 2022 traffic counts on neighborhood streets used for the TIS (omit Park Avenue and E 20th Street mixes, as those streets carry different kinds of traffic)

CROSS-REFERENCE	FHWA Vehicle Classification												
	1	2	3	4	5	6	7	8	9	10	11	12	13
EMFAC2007 Vehicle Category Assignments	MCY	LDA	LDA	OBUS	LHDT1	HHDT	HHDT	HHDT	HHDT	HHDT	HHDT	HHDT	HHDT
		LDT1	LDT1	SBUS	LHDT2								
		LDT2	LDT2	UBUS	MHDT								
		MDV	MDV										

FHWA Vehicle Classification
Class 1 - Motorcycles
Class 2 - Passenger Cars
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles
Class 4 - Buses
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks
Class 6 - Three-Axle Single-Unit Trucks
Class 7 - Four or More Axle Single-Unit Trucks
Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 9 - Five-Axle Single-Trailer Trucks
Class 10 - Six or More Axle Single-Trailer Trucks
Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 12 - Six-Axle Multi-Trailer Trucks
Class 13 - Seven or More Axle Multi-Trailer Trucks

EMFAC2007 Vehicle Classification
LDA - Passenger Car
LDT1 - Light-Duty Trucks (<3,750 lbs)
LDT2 - Light-Duty Trucks (3,751-5,750 lbs)
MDV - Medium-Duty Trucks (5,751 - 8,500 lbs)
LHDT1 - Light-Heavy-Duty (5,801 - 10,000 lbs)
LHDT2 - Light-Heavy-Duty (10,001 - 14,000 lbs)
MHDT - Medium-Heavy-Duty (14,001 - 33,000 lbs)
HHDT - Heavy-Heavy-Duty (33,001 - 60,000 lbs)
OBUS - Other Bus
UBUS - Urban Bus
MCY - Motorcycles
SBUS - School Bus
MH - Motor Homes

CALEEMOD/EMFAC DEFAULTS													
Year	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
2028	1.62%	44.24%	4.65%	22.28%	4.83%	1.09%	2.97%	16.41%	0.46%	1.23%	0.09%	0.11%	0.03%
2030	1.69%	45.56%	4.21%	22.53%	4.36%	1.02%	2.85%	15.88%	0.41%	1.26%	0.08%	0.10%	0.03%
2034	1.76%	47.87%	3.54%	22.83%	3.60%	0.89%	2.64%	15.06%	0.32%	1.28%	0.08%	0.10%	0.03%
2042	1.84%	50.58%	2.83%	23.15%	2.65%	0.71%	2.39%	14.16%	0.21%	1.30%	0.07%	0.09%	0.03%
2045	1.87%	51.08%	2.71%	23.23%	2.45%	0.67%	2.30%	14.00%	0.19%	1.32%	0.07%	0.09%	0.03%

BYSP - Operational 2028 Custom Report

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5.14.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2028
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	-2.00
Precipitation (days)	—
Location	39.7146, -121.831359
County	Butte
City	—
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	User Defined
App Version	2022.1.1.22

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
Single Family Housing	117	Dwelling Unit	13.4	228,150	292,743	0.00	277	2.37 Residents/Household

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Condo/Townhouse	56.0	Dwelling Unit	3.50	59,360	306,662	0.00	133	2.37 Residents/Household
Apartments Mid Rise	260	Dwelling Unit	14.9	249,600	97,093	0.00	615	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	36.0	1000sqft	0.00	36,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	19.6	1000sqft	0.00	19,650	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	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	29.8	28.7	16.4	134	0.24	0.25	22.9	23.1	0.23	5.81	6.05	—	23,841	23,841	1.48	1.40	80.7	24,376
Area	3.83	20.8	0.31	33.4	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	102	102	< 0.005	< 0.005	—	102
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	855	855	0.00	0.00	—	855
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	22.9	94.1	7.31	0.17	—	329
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	33.6	49.5	16.7	168	0.24	0.28	22.9	23.2	0.25	5.81	6.07	816	24,821	25,638	83.3	1.57	116	28,304
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Mobile	27.1	25.8	19.1	130	0.22	0.25	22.9	23.1	0.23	5.81	6.05	—	21,785	21,785	1.91	1.54	2.09	22,294
Area	0.00	17.2	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
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	855	855	0.00	0.00	—	855
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	22.9	94.1	7.31	0.17	—	329
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	27.1	43.0	19.1	130	0.22	0.25	22.9	23.1	0.23	5.81	6.05	816	22,663	23,480	83.7	1.71	37.6	26,121
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.0	25.1	17.7	123	0.22	0.25	22.9	23.1	0.24	5.81	6.05	—	22,251	22,251	1.81	1.55	34.9	22,794
Area	0.94	18.1	0.08	8.24	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	25.1	25.1	< 0.005	< 0.005	—	25.2
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	855	855	0.00	0.00	—	855
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	22.9	94.1	7.31	0.17	—	329
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	28.0	43.3	17.8	131	0.22	0.26	22.9	23.1	0.24	5.81	6.06	816	23,154	23,970	83.6	1.73	70.4	26,646
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.93	4.59	3.23	22.4	0.04	0.05	4.18	4.22	0.04	1.06	1.10	—	3,684	3,684	0.30	0.26	5.77	3,774
Area	0.17	3.31	0.01	1.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.16	4.16	< 0.005	< 0.005	—	4.18
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	142	142	0.00	0.00	—	142
Water	—	—	—	—	—	—	—	—	—	—	—	11.8	3.79	15.6	1.21	0.03	—	54.4
Waste	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	432
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.88	5.88
Total	5.10	7.90	3.25	23.9	0.04	0.05	4.18	4.22	0.04	1.06	1.11	135	3,833	3,969	13.8	0.29	11.7	4,411

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	3.05	2.93	1.64	13.4	0.02	0.02	2.25	2.28	0.02	0.57	0.60	—	2,355	2,355	0.15	0.14	7.96	2,408
Condo/Townhouse	1.21	1.16	0.72	5.96	0.01	0.01	1.08	1.09	0.01	0.27	0.28	—	1,114	1,114	0.06	0.06	3.81	1,138
Apartments Mid Rise	5.19	4.96	3.24	26.9	0.05	0.05	5.01	5.06	0.05	1.27	1.32	—	5,147	5,147	0.27	0.28	17.7	5,253
Health Club	9.40	9.00	5.77	47.7	0.09	0.09	8.79	8.88	0.09	2.23	2.32	—	9,048	9,048	0.48	0.49	31.0	9,238
Strip Mall	4.99	4.82	2.41	19.6	0.03	0.03	2.99	3.02	0.03	0.76	0.79	—	3,173	3,173	0.24	0.21	10.6	3,251
High Turnover (Sit Down Restaurant)	5.97	5.78	2.57	20.6	0.03	0.03	2.76	2.80	0.03	0.70	0.73	—	3,004	3,004	0.28	0.22	9.75	3,087
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	29.8	28.7	16.4	134	0.24	0.25	22.9	23.1	0.23	5.81	6.05	—	23,841	23,841	1.48	1.40	80.7	24,376
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	2.77	2.64	1.91	13.1	0.02	0.02	2.25	2.28	0.02	0.57	0.60	—	2,152	2,152	0.19	0.15	0.21	2,204
Condo/Townhouse	1.10	1.04	0.84	5.58	0.01	0.01	1.08	1.09	0.01	0.27	0.28	—	1,017	1,017	0.08	0.07	0.10	1,039
Apartments Mid Rise	4.73	4.47	3.79	24.7	0.05	0.05	5.01	5.06	0.05	1.27	1.32	—	4,696	4,696	0.34	0.30	0.46	4,796
Health Club	8.57	8.11	6.74	44.2	0.08	0.09	8.79	8.88	0.09	2.23	2.32	—	8,258	8,258	0.61	0.54	0.80	8,436
Strip Mall	4.53	4.32	2.82	20.1	0.03	0.03	2.99	3.02	0.03	0.76	0.79	—	2,905	2,905	0.31	0.23	0.27	2,981
High Turnover (Sit Down Restaurant)	5.41	5.18	3.00	22.4	0.03	0.03	2.76	2.80	0.03	0.70	0.73	—	2,757	2,757	0.37	0.25	0.25	2,839
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	27.1	25.8	19.1	130	0.22	0.25	22.9	23.1	0.23	5.81	6.05	—	21,785	21,785	1.91	1.54	2.09	22,294
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.51	0.47	0.32	2.26	< 0.005	< 0.005	0.41	0.42	< 0.005	0.10	0.11	—	365	365	0.03	0.03	0.57	374
Condo/Townhouse	0.20	0.19	0.14	0.98	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	172	172	0.01	0.01	0.27	176
Apartments Mid Rise	0.86	0.80	0.64	4.35	0.01	0.01	0.91	0.92	0.01	0.23	0.24	—	794	794	0.05	0.05	1.26	812
Health Club	1.56	1.45	1.14	7.77	0.02	0.02	1.60	1.62	0.02	0.41	0.42	—	1,397	1,397	0.10	0.09	2.22	1,428
Strip Mall	0.82	0.77	0.48	3.38	0.01	0.01	0.55	0.55	0.01	0.14	0.14	—	491	491	0.05	0.04	0.75	504

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High Turnover (Sit Down Restaurnart)	0.98	0.92	0.51	3.69	0.01	0.01	0.50	0.51	0.01	0.13	0.13	—	466	466	0.06	0.04	0.70	480
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	4.93	4.59	3.23	22.4	0.04	0.05	4.18	4.22	0.04	1.06	1.10	—	3,684	3,684	0.30	0.26	5.77	3,774

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	158	158	0.00	0.00	—	158
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	43.6	43.6	0.00	0.00	—	43.6
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	192	192	0.00	0.00	—	192
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	57.2	57.2	0.00	0.00	—	57.2

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	137	137	0.00	0.00	—	137
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	855	855	0.00	0.00	—	855
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	158	158	0.00	0.00	—	158
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	43.6	43.6	0.00	0.00	—	43.6
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	192	192	0.00	0.00	—	192
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	57.2	57.2	0.00	0.00	—	57.2
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	137	137	0.00	0.00	—	137
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	855	855	0.00	0.00	—	855

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	26.1	26.1	0.00	0.00	—	26.1
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	7.21	7.21	0.00	0.00	—	7.21
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.00	0.00	—	31.8
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	39.0	39.0	0.00	0.00	—	39.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	9.46	9.46	0.00	0.00	—	9.46
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	22.8	22.8	0.00	0.00	—	22.8
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	5.17	5.17	0.00	0.00	—	5.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	142	142	0.00	0.00	—	142

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
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Condo/T	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurant)	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
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
Movie Theater (No Matinee)	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	0.00	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/T ownhous e	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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

High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/Townhouse	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
Apartments Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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

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	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
Consumer Products	—	16.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.83	3.59	0.31	33.4	< 0.005	0.03	—	0.03	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Total	3.83	20.8	0.31	33.4	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	102	102	< 0.005	< 0.005	—	102
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	16.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	17.2	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	—	2.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipme nt	0.17	0.16	0.01	1.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.16	4.16	< 0.005	< 0.005	—	4.18
Total	0.17	3.31	0.01	1.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.16	4.16	< 0.005	< 0.005	—	4.18

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.23	2.79	10.0	0.74	0.02	—	33.8
Condo/T ownhouse	—	—	—	—	—	—	—	—	—	—	—	3.46	1.89	5.35	0.35	0.01	—	16.7
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.1	4.35	20.4	1.65	0.04	—	73.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.11	1.28	6.39	0.52	0.01	—	23.2

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	11.4	2.87	14.3	1.17	0.03	—	51.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	71.3	22.9	94.1	7.31	0.17	—	329
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.23	2.79	10.0	0.74	0.02	—	33.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.46	1.89	5.35	0.35	0.01	—	16.7
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.1	4.35	20.4	1.65	0.04	—	73.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.11	1.28	6.39	0.52	0.01	—	23.2
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	11.4	2.87	14.3	1.17	0.03	—	51.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	71.3	22.9	94.1	7.31	0.17	—	329

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.20	0.46	1.66	0.12	< 0.005	—	5.59
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.57	0.31	0.89	0.06	< 0.005	—	2.77
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.66	0.72	3.38	0.27	0.01	—	12.1
Health Club	—	—	—	—	—	—	—	—	—	—	—	2.44	0.64	3.08	0.25	0.01	—	11.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.85	0.21	1.06	0.09	< 0.005	—	3.84
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.89	0.47	2.37	0.19	< 0.005	—	8.59
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.41	0.41	0.00	0.00	—	0.41
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	2.19	0.55	2.74	0.22	0.01	—	9.95
Total	—	—	—	—	—	—	—	—	—	—	—	11.8	3.79	15.6	1.21	0.03	—	54.4

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.07	0.00	—	72.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	95.7	0.00	95.7	9.57	0.00	—	335
Health Club	—	—	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	126	0.00	126	12.6	0.00	—	441
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.07	0.00	—	72.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	95.7	0.00	95.7	9.57	0.00	—	335
Health Club	—	Appendix C	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.3
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	126	0.00	126	12.6	0.00	—	441
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4.89	0.00	4.89	0.49	0.00	—	17.1
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	3.43	0.00	3.43	0.34	0.00	—	12.0
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	15.9	0.00	15.9	1.58	0.00	—	55.5
Health Club	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.37	0.00	3.37	0.34	0.00	—	11.8
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.0
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	8.75	0.00	8.75	0.87	0.00	—	30.6
Total	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	432

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.63	1.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.79	1.79
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.22
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.7	30.7
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.63	1.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.79	1.79
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.22
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.7	30.7
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.30	0.30
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.09	5.09
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.88	5.88

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
Single Family Housing	1,033	1,033	1,033	377,085	3,189	3,189	3,189	1,164,062
Condo/Townhouse	400	400	400	146,105	1,526	1,526	1,526	557,099
Apartments Mid Rise	1,698	1,698	1,698	619,697	7,083	7,083	7,083	2,585,376
Health Club	3,094	3,094	3,094	1,129,310	12,431	12,431	12,431	4,537,346
Strip Mall	1,726	1,726	1,726	629,932	4,229	4,229	4,229	1,543,762
High Turnover (Sit Down Restaurant)	2,106	2,106	2,106	768,865	3,909	3,909	3,909	1,426,966
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movie Theater (No Matinee)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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)
1087647.75	362,549	304,275	101,425	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	90.0

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)
Single Family Housing	1,026,604	56.0	0.0000	0.0000	0.00
Condo/Townhouse	284,034	56.0	0.0000	0.0000	0.00
Apartments Mid Rise	1,253,485	56.0	0.0000	0.0000	0.00
Health Club	1,537,193	56.0	0.0000	0.0000	0.00
Strip Mall	372,619	56.0	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	896,073	56.0	0.0000	0.0000	0.00
City Park	0.00	56.0	0.0000	0.0000	0.00
Movie Theater (No Matinee)	203,382	56.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	3,771,706	3,938,078
Condo/Townhouse	1,805,261	4,125,321
Apartments Mid Rise	8,381,568	1,306,128
Health Club	7,688,609	798,265
Strip Mall	2,666,611	0.00
High Turnover (Sit Down Restaurant)	5,964,437	0.00
City Park	0.00	10,068,317
Movie Theater (No Matinee)	6,907,545	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	54.8	—
Condo/Townhouse	38.4	—
Apartments Mid Rise	178	—
Health Club	741	—
Strip Mall	37.8	—
High Turnover (Sit Down Restaurant)	234	—
City Park	1.14	—
Movie Theater (No Matinee)	98.0	—

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
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
Movie Theater (No Matinee)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Movie Theater (No Matinee)	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Movie Theater (No Matinee)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2028 Operations
Characteristics: Utility Information	PG&E Base Plan for 2022 Values
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restauant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Consumer Products	—
Operations: Architectural Coatings	No
Operations: Energy Use	No Natural Gas - PDF
Operations: Vehicle EF	ACC2 Off-Model Revisions for LDV Only
Operations: Landscape Equipment	50% ZEE as per SORE Modeling Projections

BYSP - Operational 2028 Natural Gas Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2028 Natural Gas
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	-2.00
Precipitation (days)	—
Location	39.7146, -121.831359
County	Butte
City	—
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Single Family Housing	117	Dwelling Unit	13.4	228,150	292,743	0.00	277	2.37 Residents/Household

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Condo/Townhouse	56.0	Dwelling Unit	3.50	59,360	306,662	0.00	133	2.37 Residents/Household
Apartments Mid Rise	260	Dwelling Unit	14.9	249,600	97,093	0.00	615	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	36.0	1000sqft	0.00	36,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	19.6	1000sqft	0.00	19,650	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	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	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
Area	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972
Energy	0.45	0.23	4.02	2.70	0.02	0.31	—	0.31	0.31	—	0.31	—	8,036	8,036	0.94	0.07	—	8,080
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	83.3	155	7.32	0.18	—	390
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	1.10	0.55	9.51	5.04	0.06	0.76	0.00	0.76	0.76	0.00	0.76	816	15,084	15,900	82.9	0.26	35.5	18,084
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	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
Area	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972
Energy	0.45	0.23	4.02	2.70	0.02	0.31	—	0.31	0.31	—	0.31	—	8,036	8,036	0.94	0.07	—	8,080
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	83.3	155	7.32	0.18	—	390
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	1.10	0.55	9.51	5.04	0.06	0.76	0.00	0.76	0.76	0.00	0.76	816	15,084	15,900	82.9	0.26	35.5	18,084
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.26	0.13	2.25	0.96	0.01	0.18	—	0.18	0.18	—	0.18	0.00	2,862	2,862	0.05	0.01	—	2,865
Energy	0.45	0.23	4.02	2.70	0.02	0.31	—	0.31	0.31	—	0.31	—	8,036	8,036	0.94	0.07	—	8,080
Water	—	—	—	—	—	—	—	—	—	—	—	71.3	83.3	155	7.32	0.18	—	390
Waste	—	—	—	—	—	—	—	—	—	—	—	745	0.00	745	74.5	0.00	—	2,607
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.5	35.5
Total	0.72	0.36	6.28	3.66	0.04	0.50	0.00	0.50	0.50	0.00	0.50	816	10,981	11,798	82.8	0.25	35.5	13,978
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	474	474	0.01	< 0.005	—	474
Energy	0.08	0.04	0.73	0.49	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,330	1,330	0.16	0.01	—	1,338
Water	—	—	—	—	—	—	—	—	—	—	—	11.8	13.8	25.6	1.21	0.03	—	64.5
Waste	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	432
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.88	5.88
Total	0.13	0.07	1.15	0.67	0.01	0.09	0.00	0.09	0.09	0.00	0.09	135	1,818	1,953	13.7	0.04	5.88	2,314

4. Operations Emissions Details

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.06	0.03	0.50	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	634	634	0.06	< 0.005	—	635
Condo/Townhouse	0.03	0.02	0.28	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	354	354	0.03	< 0.005	—	355
Apartments Mid Rise	0.10	0.05	0.85	0.36	0.01	0.07	—	0.07	0.07	—	0.07	—	1,073	1,073	0.09	< 0.005	—	1,076
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.09	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
High Turnover (Sit Down Restaurant)	0.08	0.04	0.68	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	814	814	0.07	< 0.005	—	816
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.45	0.23	4.02	2.70	0.02	0.31	—	0.31	0.31	—	0.31	—	4,921	4,921	0.44	0.01	—	4,935
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Single Family Housing	0.06	0.03	0.50	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	634	634	0.06	< 0.005	—	635
Condo/Townhouse	0.03	0.02	0.28	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	354	354	0.03	< 0.005	—	355
Apartments Mid Rise	0.10	0.05	0.85	0.36	0.01	0.07	—	0.07	0.07	—	0.07	—	1,073	1,073	0.09	< 0.005	—	1,076
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.09	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
High Turnover (Sit Down Restaurant)	0.08	0.04	0.68	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	814	814	0.07	< 0.005	—	816
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.45	0.23	4.02	2.70	0.02	0.31	—	0.31	0.31	—	0.31	—	4,921	4,921	0.44	0.01	—	4,935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	105	105	0.01	< 0.005	—	105
Condo/Townhouse	0.01	< 0.005	0.05	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.6	58.6	0.01	< 0.005	—	58.8
Apartments Mid Rise	0.02	0.01	0.15	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.02	< 0.005	—	178
Health Club	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.03	< 0.005	—	284
Strip Mall	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.5	18.5	< 0.005	< 0.005	—	18.6

High Turnover (Sit Down Restaurant)	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	135	135	0.01	< 0.005	—	135
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
Movie Theater (No Matinee)	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.4	37.4	< 0.005	< 0.005	—	37.5
Total	0.08	0.04	0.73	0.49	< 0.005	0.06	—	0.06	0.06	—	0.06	—	815	815	0.07	< 0.005	—	817

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	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972

Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.64	0.32	5.49	2.33	0.04	0.44	—	0.44	0.44	—	0.44	0.00	6,965	6,965	0.13	0.01	—	6,972
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	474	474	0.01	< 0.005	—	474
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	474	474	0.01	< 0.005	—	474

5. Activity Data

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	73
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces Appendix C	44

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	35
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	21
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	163
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	98
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
Single Family Housing	1,026,604	204	0.0330	0.0040	1,977,418
Condo/Townhouse	284,034	204	0.0330	0.0040	1,104,299
Apartments Mid Rise	1,253,485	204	0.0330	0.0040	3,346,883
Health Club	1,537,193	204	0.0330	0.0040	5,331,813
Strip Mall	372,619	204	0.0330	0.0040	348,817
High Turnover (Sit Down Restaurant)	896,073	204	0.0330	0.0040	2,540,524
City Park	0.00	204	0.0330	0.0040	0.00
Movie Theater (No Matinee)	203,382	204	0.0330	0.0040	705,440

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2028 Operations
Characteristics: Utility Information	—
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restauant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Hearths	No Woodstoves; 1/2 of woodstoves --> Natural Gas, 1/2 of woodstoves --> No Fireplace Corresponds to 62.5% of Units with Fire places and 37.5% Without
Operations: Consumer Products	Zeroed out to Isolate Area Source Emissions from Hearths
Operations: Architectural Coatings	Zeroed out to isolate NG

Operations: Energy Use	—
Operations: Vehicle EF	ACC2 Off-Model Revisions for LDV Only
Operations: Landscape Equipment	Zeroed out to isolate NG

BYSP - Operational 2030 Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2030
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	210
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	User Defined
App Version	2022.1.1.22

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
Single Family Housing	212	Dwelling Unit	24.5	413,400	533,461	0.00	503	2.37 Residents/Household

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Condo/Townhouse	93.0	Dwelling Unit	8.00	98,580	69,537	0.00	219	2.37 Residents/Household
Apartments Mid Rise	357	Dwelling Unit	18.9	342,720	123,461	0.00	846	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	31.0	29.8	17.2	140	0.26	0.26	28.1	28.4	0.25	7.14	7.39	—	26,431	26,431	1.53	1.55	78.9	27,012
Area	5.06	29.5	0.43	46.8	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	138	138	0.01	< 0.005	—	138
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,112	1,112	0.00	0.00	—	1,112
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	27.1	115	9.00	0.21	—	404
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	36.1	59.3	17.6	187	0.27	0.30	28.1	28.4	0.27	7.14	7.41	929	27,708	28,637	94.6	1.77	122	31,651
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	28.7	26.8	20.0	139	0.24	0.26	28.1	28.4	0.25	7.14	7.39	—	24,183	24,183	1.97	1.71	2.05	24,743
Area	0.00	24.8	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
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,112	1,112	0.00	0.00	—	1,112
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	27.1	115	9.00	0.21	—	404
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	28.7	51.6	20.0	139	0.24	0.26	28.1	28.4	0.25	7.14	7.39	929	25,322	26,251	95.0	1.92	44.8	29,244
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	28.2	27.5	18.6	128	0.25	0.26	27.4	27.7	0.25	6.97	7.21	—	24,691	24,691	2.06	1.85	34.1	25,329
Area	1.00	25.7	0.08	9.24	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	27.2	27.2	< 0.005	< 0.005	—	27.3
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,112	1,112	0.00	0.00	—	1,112
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	27.1	115	9.00	0.21	—	404
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	29.1	53.2	18.6	137	0.25	0.27	27.4	27.7	0.25	6.97	7.22	929	25,857	26,786	95.1	2.07	76.8	29,857
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.14	5.02	3.39	23.4	0.04	0.05	5.01	5.05	0.05	1.27	1.32	—	4,088	4,088	0.34	0.31	5.64	4,193
Area	0.18	4.69	0.02	1.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.51	4.51	< 0.005	< 0.005	—	4.52
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	184	184	0.00	0.00	—	184
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	4.49	19.0	1.49	0.04	—	66.8
Waste	—	—	—	—	—	—	—	—	—	—	—	139	0.00	139	13.9	0.00	—	487
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.08	7.08
Total	5.32	9.71	3.40	25.1	0.05	0.05	5.01	5.06	0.05	1.27	1.32	154	4,281	4,435	15.7	0.34	12.7	4,943

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	4.69	4.51	2.54	20.7	0.04	0.04	4.09	4.13	0.04	1.04	1.07	—	3,853	3,853	0.23	0.23	11.5	3,939
Condo/Townhouse	1.70	1.63	1.02	8.42	0.02	0.02	1.80	1.81	0.02	0.46	0.47	—	1,672	1,672	0.09	0.09	5.04	1,707
Apartments Mid Rise	6.05	5.79	3.80	31.4	0.06	0.06	6.89	6.95	0.06	1.75	1.81	—	6,387	6,387	0.31	0.34	19.3	6,517
Health Club	7.99	7.65	4.92	40.6	0.08	0.08	8.81	8.89	0.08	2.24	2.31	—	8,179	8,179	0.41	0.45	24.7	8,347
Strip Mall	4.70	4.54	2.30	18.5	0.03	0.03	3.33	3.36	0.03	0.85	0.88	—	3,187	3,187	0.22	0.21	9.34	3,264
High Turnover (Sit Down Restaurant)	5.87	5.69	2.57	20.3	0.03	0.03	3.21	3.25	0.03	0.82	0.85	—	3,152	3,152	0.27	0.23	9.02	3,238
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	31.0	29.8	17.2	140	0.26	0.26	28.1	28.4	0.25	7.14	7.39	—	26,431	26,431	1.53	1.55	78.9	27,012
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Single Family Housing	4.33	4.06	2.95	20.7	0.04	0.04	4.09	4.13	0.04	1.04	1.07	—	3,526	3,526	0.30	0.25	0.30	3,609
Condo/Townhouse	1.58	1.47	1.19	8.08	0.02	0.02	1.80	1.81	0.02	0.46	0.47	—	1,529	1,529	0.11	0.10	0.13	1,562
Apartments Mid Rise	5.60	5.23	4.42	29.6	0.06	0.06	6.89	6.95	0.06	1.75	1.81	—	5,837	5,837	0.39	0.38	0.50	5,959
Health Club	7.40	6.90	5.73	38.6	0.07	0.08	8.81	8.89	0.08	2.24	2.31	—	7,475	7,475	0.52	0.49	0.64	7,634
Strip Mall	4.34	4.08	2.68	19.3	0.03	0.03	3.33	3.36	0.03	0.85	0.88	—	2,921	2,921	0.29	0.23	0.24	2,997
High Turnover (Sit Down Restaurant)	5.41	5.10	2.99	22.4	0.03	0.03	3.21	3.25	0.03	0.82	0.85	—	2,896	2,896	0.36	0.26	0.23	2,982
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	28.7	26.8	20.0	139	0.24	0.26	28.1	28.4	0.25	7.14	7.39	—	24,183	24,183	1.97	1.71	2.05	24,743
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.78	0.76	0.50	3.48	0.01	0.01	0.73	0.74	0.01	0.18	0.19	—	596	596	0.05	0.05	0.82	612
Condo/Townhouse	0.28	0.28	0.20	1.38	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	—	258	258	0.02	0.02	0.36	265
Apartments Mid Rise	1.00	0.98	0.75	5.09	0.01	0.01	1.23	1.24	0.01	0.31	0.32	—	987	987	0.07	0.07	1.38	1,010
Health Club	1.33	1.30	0.97	6.62	0.01	0.01	1.57	1.58	0.01	0.40	0.41	—	1,264	1,264	0.09	0.09	1.77	1,294
Strip Mall	0.78	0.76	0.45	3.19	0.01	0.01	0.59	0.60	0.01	0.15	0.16	—	494	494	0.05	0.04	0.67	508

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High Turnover (Sit Down Restaurnart)	0.97	0.95	0.51	3.63	0.01	0.01	0.57	0.58	0.01	0.15	0.15	—	489	489	0.06	0.05	0.64	505
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	5.14	5.02	3.39	23.4	0.04	0.05	5.01	5.05	0.05	1.27	1.32	—	4,088	4,088	0.34	0.31	5.64	4,193

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.00	0.00	—	285
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	72.4	72.4	0.00	0.00	—	72.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	264	264	0.00	0.00	—	264
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.5	63.5	0.00	0.00	—	63.5

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,112	1,112	0.00	0.00	—	1,112
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.00	0.00	—	285
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	72.4	72.4	0.00	0.00	—	72.4
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	264	264	0.00	0.00	—	264
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.5	63.5	0.00	0.00	—	63.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,112	1,112	0.00	0.00	—	1,112

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	47.3	47.3	0.00	0.00	—	47.3
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	12.0	12.0	0.00	0.00	—	12.0
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	43.7	43.7	0.00	0.00	—	43.7
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	39.0	39.0	0.00	0.00	—	39.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	26.4	26.4	0.00	0.00	—	26.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	5.17	5.17	0.00	0.00	—	5.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	184	184	0.00	0.00	—	184

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
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Condo/T	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurant)	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
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
Movie Theater (No Matinee)	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	0.00	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/T ownhous e	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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

High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/Townhouse	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
Apartments Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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

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	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
Consumer Products	—	23.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	5.06	4.75	0.43	46.8	< 0.005	0.03	—	0.03	0.03	—	0.03	—	138	138	0.01	< 0.005	—	138
Total	5.06	29.5	0.43	46.8	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	138	138	0.01	< 0.005	—	138
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	23.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	24.8	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	—	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	0.18	0.17	0.02	1.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51	4.51	< 0.005	< 0.005	—	4.52
Total	0.18	4.69	0.02	1.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.51	4.51	< 0.005	< 0.005	—	4.52

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.1	5.06	18.2	1.34	0.03	—	61.2
Condo/T ownhouse	—	—	—	—	—	—	—	—	—	—	—	5.74	1.67	7.42	0.59	0.01	—	26.3
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.1	5.94	28.0	2.26	0.05	—	101
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	1.42	7.10	0.58	0.01	—	25.8

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	3.33	16.6	1.36	0.03	—	60.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	87.8	27.1	115	9.00	0.21	—	404
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.1	5.06	18.2	1.34	0.03	—	61.2
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.74	1.67	7.42	0.59	0.01	—	26.3
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.1	5.94	28.0	2.26	0.05	—	101
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	1.42	7.10	0.58	0.01	—	25.8
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	3.33	16.6	1.36	0.03	—	60.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	87.8	27.1	115	9.00	0.21	—	404

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.17	0.84	3.01	0.22	0.01	—	10.1
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	0.95	0.28	1.23	0.10	< 0.005	—	4.36
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	3.65	0.98	4.63	0.37	0.01	—	16.6
Health Club	—	—	—	—	—	—	—	—	—	—	—	2.44	0.64	3.08	0.25	0.01	—	11.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	0.24	1.18	0.10	< 0.005	—	4.27
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.20	0.55	2.75	0.23	0.01	—	9.97
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.41	0.41	0.00	0.00	—	0.41
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	2.19	0.55	2.74	0.22	0.01	—	9.95
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	4.49	19.0	1.49	0.04	—	66.8

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.6	0.00	53.6	5.36	0.00	—	188
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.41	0.00	—	119
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	461
Health Club	—	—	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.6	0.00	53.6	5.36	0.00	—	188
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.41	0.00	—	119
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	461
Health Club	—	Appendix C	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.87	0.00	8.87	0.89	0.00	—	31.0
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.64	0.00	5.64	0.56	0.00	—	19.7
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	21.8	0.00	21.8	2.18	0.00	—	76.3
Health Club	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.75	0.00	3.75	0.37	0.00	—	13.1
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	8.75	0.00	8.75	0.87	0.00	—	30.6
Total	—	—	—	—	—	—	—	—	—	—	—	139	0.00	139	13.9	0.00	—	487

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.96	2.96
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.45	2.45
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.96	2.96
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.45	2.45
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.49	0.49
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.41	0.41
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.90	5.90
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.08	7.08

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
Single Family Housing	1,872	1,872	1,872	683,265	5,779	5,779	5,779	2,109,240
Condo/Townhouse	665	665	665	242,707	2,535	2,535	2,535	925,441
Apartments Mid Rise	2,331	2,331	2,331	850,892	9,726	9,726	9,726	3,549,920
Health Club	3,094	3,094	3,094	1,129,310	12,431	12,431	12,431	4,537,346
Strip Mall	1,918	1,918	1,918	699,924	4,699	4,699	4,699	1,715,291
High Turnover (Sit Down Restaurant)	2,444	2,444	2,444	892,118	4,536	4,536	4,536	1,655,716
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movie Theater (No Matinee)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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)
1730767.5	576,923	315,000	105,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	72.0

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)
Single Family Housing	1,860,171	56.0	0.0000	0.0000	0.00
Condo/Townhouse	471,699	56.0	0.0000	0.0000	0.00
Apartments Mid Rise	1,721,131	56.0	0.0000	0.0000	0.00
Health Club	1,537,193	56.0	0.0000	0.0000	0.00
Strip Mall	414,021	56.0	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	1,039,718	56.0	0.0000	0.0000	0.00
City Park	0.00	56.0	0.0000	0.0000	0.00
Movie Theater (No Matinee)	203,382	56.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	6,834,202	7,176,298
Condo/Townhouse	2,998,022	935,435
Apartments Mid Rise	11,508,538	1,660,839
Health Club	7,688,609	798,265
Strip Mall	2,962,901	0.00
High Turnover (Sit Down Restaurant)	6,920,569	0.00
City Park	0.00	10,068,317
Movie Theater (No Matinee)	6,907,545	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	99.5	—
Condo/Townhouse	63.3	—
Apartments Mid Rise	244	—
Health Club	741	—
Strip Mall	42.0	—
High Turnover (Sit Down Restaurant)	271	—
City Park	1.14	—
Movie Theater (No Matinee)	98.0	—

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
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
Movie Theater (No Matinee)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Movie Theater (No Matinee)	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Movie Theater (No Matinee)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2030 Operations
Characteristics: Utility Information	PG&E Base Plan 2022 Power Content Label
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restauant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Vehicle EF	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Resident Home-Based Trip length to match 11.5 VMT per resident.
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Consumer Products	—
Operations: Landscape Equipment	60% ZEE as per SORE Modeling Projections
Operations: Energy Use	No Natural Gas - PDF

BYSP - Operational 2030 Natural Gas Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2030 Natural Gas
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	210
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Single Family Housing	212	Dwelling Unit	24.5	413,400	533,461	0.00	503	2.37 Residents/Household

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Condo/Townhouse	93.0	Dwelling Unit	8.00	98,580	69,537	0.00	219	2.37 Residents/Household
Apartments Mid Rise	357	Dwelling Unit	18.9	342,720	123,461	0.00	846	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	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
Area	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659
Energy	0.57	0.29	5.05	3.19	0.03	0.40	—	0.40	0.40	—	0.40	—	10,263	10,263	1.21	0.09	—	10,320
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	98.8	187	9.02	0.22	—	476
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	1.55	0.78	13.4	6.76	0.08	1.07	0.00	1.07	1.07	0.00	1.07	929	21,009	21,938	94.5	0.33	42.7	24,440
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	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
Area	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659
Energy	0.57	0.29	5.05	3.19	0.03	0.40	—	0.40	0.40	—	0.40	—	10,263	10,263	1.21	0.09	—	10,320
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	98.8	187	9.02	0.22	—	476
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	1.55	0.78	13.4	6.76	0.08	1.07	0.00	1.07	1.07	0.00	1.07	929	21,009	21,938	94.5	0.33	42.7	24,440
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.40	0.20	3.45	1.47	0.02	0.28	—	0.28	0.28	—	0.28	0.00	4,376	4,376	0.08	0.01	—	4,380
Energy	0.57	0.29	5.05	3.19	0.03	0.40	—	0.40	0.40	—	0.40	—	10,263	10,263	1.21	0.09	—	10,320
Water	—	—	—	—	—	—	—	—	—	—	—	87.8	98.8	187	9.02	0.22	—	476
Waste	—	—	—	—	—	—	—	—	—	—	—	841	0.00	841	84.1	0.00	—	2,943
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7
Total	0.98	0.49	8.49	4.66	0.05	0.67	0.00	0.67	0.67	0.00	0.67	929	14,737	15,666	94.4	0.32	42.7	18,162
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.07	0.04	0.63	0.27	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	724	724	0.01	< 0.005	—	725
Energy	0.10	0.05	0.92	0.58	0.01	0.07	—	0.07	0.07	—	0.07	—	1,699	1,699	0.20	0.02	—	1,709
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	16.4	30.9	1.49	0.04	—	78.9
Waste	—	—	—	—	—	—	—	—	—	—	—	139	0.00	139	13.9	0.00	—	487
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.08	7.08
Total	0.18	0.09	1.55	0.85	0.01	0.12	0.00	0.12	0.12	0.00	0.12	154	2,440	2,594	15.6	0.05	7.08	3,007

4. Operations Emissions Details

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.11	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,148	1,148	0.10	< 0.005	—	1,151
Condo/Townhouse	0.05	0.03	0.46	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	—	588	588	0.05	< 0.005	—	589
Apartments Mid Rise	0.14	0.07	1.16	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,473	1,473	0.13	< 0.005	—	1,477
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.57	0.29	5.05	3.19	0.03	0.40	—	0.40	0.40	—	0.40	—	6,213	6,213	0.55	0.01	—	6,230
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	0.11	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,148	1,148	0.10	< 0.005	—	1,151
Condo/Townhouse	0.05	0.03	0.46	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	—	588	588	0.05	< 0.005	—	589
Apartments Mid Rise	0.14	0.07	1.16	0.49	0.01	0.09	—	0.09	0.09	—	0.09	—	1,473	1,473	0.13	< 0.005	—	1,477
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.57	0.29	5.05	3.19	0.03	0.40	—	0.40	0.40	—	0.40	—	6,213	6,213	0.55	0.01	—	6,230
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	190	190	0.02	< 0.005	—	191
Condo/Townhouse	0.01	< 0.005	0.08	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	97.3	97.3	0.01	< 0.005	—	97.6
Apartments Mid Rise	0.02	0.01	0.21	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02	—	244	244	0.02	< 0.005	—	245
Health Club	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.03	< 0.005	—	284
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.6	20.6	< 0.005	< 0.005	—	20.6

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High Turnover (Sit Down Restaurant)	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	156	156	0.01	< 0.005	—	157
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
Movie Theater (No Matinee)	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.4	37.4	< 0.005	< 0.005	—	37.5
Total	0.10	0.05	0.92	0.58	0.01	0.07	—	0.07	0.07	—	0.07	—	1,029	1,029	0.09	< 0.005	—	1,031

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	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659

Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.98	0.49	8.39	3.57	0.05	0.68	—	0.68	0.68	—	0.68	0.00	10,648	10,648	0.20	0.02	—	10,659
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.04	0.63	0.27	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	724	724	0.01	< 0.005	—	725
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.07	0.04	0.63	0.27	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	724	724	0.01	< 0.005	—	725

5. Activity Data

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	133
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces Appendix C	80

Conventional Wood Stoves	0
Catalytic Wood Stoves	19
Non-Catalytic Wood Stoves	19
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	58
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	35
Conventional Wood Stoves	0
Catalytic Wood Stoves	8
Non-Catalytic Wood Stoves	8
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	223
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	134
Conventional Wood Stoves	0
Catalytic Wood Stoves	32
Non-Catalytic Wood Stoves	32
Pellet Wood Stoves	0

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)
Single Family Housing	1,860,171	204	0.0330	0.0040	3,583,014
Condo/Townhouse	471,699	204	0.0330	0.0040	1,833,926
Apartments Mid Rise	1,721,131	204	0.0330	0.0040	4,595,528
Health Club	1,537,193	204	0.0330	0.0040	5,331,813
Strip Mall	414,021	204	0.0330	0.0040	387,574
High Turnover (Sit Down Restaurant)	1,039,718	204	0.0330	0.0040	2,947,783
City Park	0.00	204	0.0330	0.0040	0.00
Movie Theater (No Matinee)	203,382	204	0.0330	0.0040	705,440

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2030 Operations
Characteristics: Utility Information	Butte Choice Energy CCA with 5% residential opt-out and 15% commercial opt-out to PG&E based on RPS Goals.
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restaurant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Vehicle EF	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Resident Home-Based Trip length to match 11.5 VMT per resident.

Operations: Hearths	No Wood fireplaces--> 1/2 Wood fireplaces --> NG and half --> No fireplaces Corresponds to 62.5% of DU with gas fireplaces
Operations: Consumer Products	Isolate NG usage in area sources
Operations: Landscape Equipment	Zeroed out to Isolate NG
Operations: Energy Use	No Natural Gas - PDF
Operations: Architectural Coatings	isolate NG emissions in area sources

BYSP - Operational 2034 Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2034
Operational Year	2034
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	User Defined
App Version	2022.1.1.22

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
Single Family Housing	300	Dwelling Unit	36.5	585,000	794,588	0.00	711	2.37 Residents/Household

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Condo/Townhouse	107	Dwelling Unit	9.10	113,420	79,462	1.00	254	2.37 Residents/Household
Apartments Mid Rise	613	Dwelling Unit	26.9	588,480	175,873	0.00	1,453	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	27.1	26.1	15.3	123	0.25	0.23	34.9	35.1	0.22	8.85	9.07	—	25,603	25,603	1.33	1.54	58.5	26,152
Area	6.91	41.2	0.61	67.3	< 0.005	0.04	—	0.04	0.03	—	0.03	0.00	192	192	0.01	< 0.005	—	193
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,431	1,431	0.00	0.00	—	1,431
Water	—	—	—	—	—	—	—	—	—	—	—	110	33.7	144	11.3	0.27	—	505
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	34.0	67.3	15.9	190	0.26	0.27	34.9	35.2	0.25	8.85	9.10	1,073	27,259	28,333	109	1.81	104	31,697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	25.8	23.7	17.6	121	0.23	0.23	34.9	35.1	0.22	8.85	9.07	—	23,503	23,503	1.68	1.67	1.52	24,045
Area	0.00	34.7	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
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,431	1,431	0.00	0.00	—	1,431
Water	—	—	—	—	—	—	—	—	—	—	—	110	33.7	144	11.3	0.27	—	505
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	25.8	58.4	17.6	121	0.23	0.23	34.9	35.1	0.22	8.85	9.07	1,073	24,968	26,041	109	1.94	47.4	29,397
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	24.8	23.7	16.5	113	0.24	0.23	34.0	34.3	0.22	8.63	8.85	—	23,973	23,973	2.02	2.03	25.2	24,655
Area	0.85	35.5	0.08	8.30	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	23.7	23.7	< 0.005	< 0.005	—	23.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,431	1,431	0.00	0.00	—	1,431
Water	—	—	—	—	—	—	—	—	—	—	—	110	33.7	144	11.3	0.27	—	505
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	25.7	59.3	16.6	121	0.24	0.24	34.0	34.3	0.22	8.63	8.86	1,073	25,461	26,534	110	2.30	71.1	30,030
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.53	4.33	3.01	20.5	0.04	0.04	6.21	6.25	0.04	1.58	1.62	—	3,969	3,969	0.34	0.34	4.18	4,082
Area	0.16	6.49	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.92	3.92	< 0.005	< 0.005	—	3.94
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	237	237	0.00	0.00	—	237
Water	—	—	—	—	—	—	—	—	—	—	—	18.2	5.59	23.8	1.87	0.04	—	83.6
Waste	—	—	—	—	—	—	—	—	—	—	—	159	0.00	159	15.9	0.00	—	558
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.59	7.59
Total	4.69	10.8	3.02	22.0	0.04	0.04	6.21	6.25	0.04	1.58	1.62	178	4,215	4,393	18.1	0.38	11.8	4,972

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	4.79	4.61	2.62	20.9	0.04	0.04	5.77	5.81	0.04	1.46	1.50	—	4,252	4,252	0.23	0.26	9.66	4,346
Condo/Townhouse	1.42	1.36	0.85	6.92	0.01	0.01	2.06	2.07	0.01	0.52	0.53	—	1,498	1,498	0.07	0.09	3.45	1,529
Apartments Mid Rise	7.51	7.19	4.69	38.5	0.08	0.08	11.8	11.9	0.07	2.99	3.06	—	8,541	8,541	0.38	0.48	19.7	8,712
Health Club	5.78	5.53	3.54	29.0	0.06	0.06	8.77	8.83	0.05	2.22	2.28	—	6,369	6,369	0.29	0.36	14.7	6,498
Strip Mall	3.39	3.27	1.69	13.2	0.02	0.02	3.32	3.34	0.02	0.84	0.86	—	2,484	2,484	0.16	0.17	5.55	2,543
High Turnover (Sit Down Restaurant)	4.22	4.10	1.90	14.4	0.02	0.02	3.20	3.22	0.02	0.81	0.83	—	2,458	2,458	0.19	0.19	5.36	2,523
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	27.1	26.1	15.3	123	0.25	0.23	34.9	35.1	0.22	8.85	9.07	—	25,603	25,603	1.33	1.54	58.5	26,152
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	4.56	4.19	3.02	20.8	0.04	0.04	5.77	5.81	0.04	1.46	1.50	—	3,906	3,906	0.29	0.29	0.25	3,998
Condo/Townhouse	1.35	1.24	0.98	6.63	0.01	0.01	2.06	2.07	0.01	0.52	0.53	—	1,374	1,374	0.09	0.09	0.09	1,404
Apartments Mid Rise	7.16	6.55	5.42	36.3	0.08	0.08	11.8	11.9	0.07	2.99	3.06	—	7,831	7,831	0.48	0.52	0.51	7,998
Health Club	5.51	5.04	4.09	27.5	0.06	0.06	8.77	8.83	0.05	2.22	2.28	—	5,841	5,841	0.37	0.39	0.38	5,967
Strip Mall	3.22	2.97	1.95	13.7	0.02	0.02	3.32	3.34	0.02	0.84	0.86	—	2,285	2,285	0.20	0.18	0.14	2,345
High Turnover (Sit Down Restaurant)	4.01	3.71	2.19	15.8	0.02	0.02	3.20	3.22	0.02	0.81	0.83	—	2,266	2,266	0.25	0.20	0.14	2,333
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	25.8	23.7	17.6	121	0.23	0.23	34.9	35.1	0.22	8.85	9.07	—	23,503	23,503	1.68	1.67	1.52	24,045
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.80	0.77	0.51	3.52	0.01	0.01	1.03	1.03	0.01	0.26	0.27	—	659	659	0.06	0.06	0.69	679
Condo/Townhouse	0.24	0.23	0.17	1.14	< 0.005	< 0.005	0.37	0.37	< 0.005	0.09	0.10	—	232	232	0.02	0.02	0.25	238
Apartments Mid Rise	1.26	1.20	0.92	6.28	0.01	0.01	2.10	2.11	0.01	0.53	0.55	—	1,323	1,323	0.10	0.10	1.41	1,357
Health Club	0.97	0.92	0.70	4.75	0.01	0.01	1.56	1.57	0.01	0.40	0.41	—	987	987	0.07	0.08	1.05	1,013
Strip Mall	0.56	0.54	0.33	2.27	< 0.005	< 0.005	0.59	0.59	< 0.005	0.15	0.15	—	386	386	0.04	0.04	0.40	398

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High Turnover (Sit Down Restaurant)	0.70	0.68	0.37	2.58	< 0.005	< 0.005	0.57	0.57	< 0.005	0.14	0.15	—	382	382	0.05	0.04	0.38	396
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	4.53	4.33	3.01	20.5	0.04	0.04	6.21	6.25	0.04	1.58	1.62	—	3,969	3,969	0.34	0.34	4.18	4,082

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	404	404	0.00	0.00	—	404
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	83.3	83.3	0.00	0.00	—	83.3
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	453	453	0.00	0.00	—	453
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.5	63.5	0.00	0.00	—	63.5

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,431	1,431	0.00	0.00	—	1,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	404	404	0.00	0.00	—	404
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	83.3	83.3	0.00	0.00	—	83.3
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	453	453	0.00	0.00	—	453
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	236	236	0.00	0.00	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.5	63.5	0.00	0.00	—	63.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	31.2	31.2	0.00	0.00	—	31.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,431	1,431	0.00	0.00	—	1,431

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	66.9	66.9	0.00	0.00	—	66.9
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8	0.00	0.00	—	13.8
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	75.1	75.1	0.00	0.00	—	75.1
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	39.0	39.0	0.00	0.00	—	39.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	26.4	26.4	0.00	0.00	—	26.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	5.17	5.17	0.00	0.00	—	5.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	237	237	0.00	0.00	—	237

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
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Condo/T	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurant)	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
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
Movie Theater (No Matinee)	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	0.00	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/T ownhous e	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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

High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/Townhouse	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
Apartments Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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

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	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
Consumer Products	—	32.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	6.91	6.50	0.61	67.3	< 0.005	0.04	—	0.04	0.03	—	0.03	—	192	192	0.01	< 0.005	—	193
Total	6.91	41.2	0.61	67.3	< 0.005	0.04	—	0.04	0.03	—	0.03	0.00	192	192	0.01	< 0.005	—	193
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	32.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	34.7	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	—	5.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	0.16	0.15	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.92	3.92	< 0.005	< 0.005	—	3.94
Total	0.16	6.49	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.92	3.92	< 0.005	< 0.005	—	3.94

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	18.5	7.29	25.8	1.90	0.05	—	86.8
Condo/T ownhouse	—	—	—	—	—	—	—	—	—	—	—	6.61	1.92	8.53	0.68	0.02	—	30.3
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.9	10.1	47.9	3.88	0.09	—	173
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	1.42	7.10	0.58	0.01	—	25.8

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	3.33	16.6	1.36	0.03	—	60.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	110	33.7	144	11.3	0.27	—	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	18.5	7.29	25.8	1.90	0.05	—	86.8
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.61	1.92	8.53	0.68	0.02	—	30.3
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.9	10.1	47.9	3.88	0.09	—	173
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	3.89	18.6	1.51	0.04	—	67.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	1.42	7.10	0.58	0.01	—	25.8
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	3.33	16.6	1.36	0.03	—	60.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.49	2.49	0.00	0.00	—	2.49
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	3.32	16.6	1.36	0.03	—	60.1
Total	—	—	—	—	—	—	—	—	—	—	—	110	33.7	144	11.3	0.27	—	505

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.07	1.21	4.28	0.31	0.01	—	14.4
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.09	0.32	1.41	0.11	< 0.005	—	5.01
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	6.27	1.67	7.94	0.64	0.02	—	28.6
Health Club	—	—	—	—	—	—	—	—	—	—	—	2.44	0.64	3.08	0.25	0.01	—	11.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	0.24	1.18	0.10	< 0.005	—	4.27
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.20	0.55	2.75	0.23	0.01	—	9.97
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.41	0.41	0.00	0.00	—	0.41
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	2.19	0.55	2.74	0.22	0.01	—	9.95
Total	—	—	—	—	—	—	—	—	—	—	—	18.2	5.59	23.8	1.87	0.04	—	83.6

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	75.8	0.00	75.8	7.57	0.00	—	265
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.5	0.00	39.5	3.95	0.00	—	138
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	0.00	226	22.6	0.00	—	791
Health Club	—	—	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	75.8	0.00	75.8	7.57	0.00	—	265
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.5	0.00	39.5	3.95	0.00	—	138
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	0.00	226	22.6	0.00	—	791
Health Club	—	Appendix C	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.5	0.00	12.5	1.25	0.00	—	43.9
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	6.55	0.00	6.55	0.65	0.00	—	22.9
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.5	0.00	37.5	3.74	0.00	—	131
Health Club	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.75	0.00	3.75	0.37	0.00	—	13.1
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	8.75	0.00	8.75	0.87	0.00	—	30.6
Total	—	—	—	—	—	—	—	—	—	—	—	159	0.00	159	15.9	0.00	—	558

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.19	4.19
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.21	4.21
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.19	4.19
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.21	4.21
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.70	0.70
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.90	5.90
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.59	7.59

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
Single Family Housing	2,649	2,649	2,649	966,885	8,177	8,177	8,177	2,984,774
Condo/Townhouse	765	765	765	279,165	2,916	2,916	2,916	1,064,457
Apartments Mid Rise	4,003	4,003	4,003	1,461,055	16,700	16,700	16,700	6,095,521
Health Club	3,094	3,094	3,094	1,129,310	12,431	12,431	12,431	4,537,346
Strip Mall	1,918	1,918	1,918	699,924	4,699	4,699	4,699	1,715,291
High Turnover (Sit Down Restaurant)	2,444	2,444	2,444	892,029	4,535	4,535	4,535	1,655,448
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movie Theater (No Matinee)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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)
2605972.5	868,658	315,000	105,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	45.0

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)
Single Family Housing	2,632,318	56.0	0.0000	0.0000	0.00
Condo/Townhouse	542,708	56.0	0.0000	0.0000	0.00
Apartments Mid Rise	2,955,331	56.0	0.0000	0.0000	0.00
Health Club	1,537,193	56.0	0.0000	0.0000	0.00
Strip Mall	414,021	56.0	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	1,039,718	56.0	0.0000	0.0000	0.00
City Park	0.00	56.0	0.0000	0.0000	0.00
Movie Theater (No Matinee)	203,382	56.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	9,671,040	10,689,066
Condo/Townhouse	3,449,338	1,068,961
Apartments Mid Rise	19,761,158	2,365,903
Health Club	7,688,609	798,265
Strip Mall	2,962,901	0.00
High Turnover (Sit Down Restaurant)	6,920,569	0.00
City Park	0.00	10,068,317
Movie Theater (No Matinee)	6,907,545	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	141	—
Condo/Townhouse	73.4	—
Apartments Mid Rise	420	—
Health Club	741	—
Strip Mall	42.0	—
High Turnover (Sit Down Restaurant)	271	—
City Park	1.14	—
Movie Theater (No Matinee)	98.0	—

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
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
Movie Theater (No Matinee)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Movie Theater (No Matinee)	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Movie Theater (No Matinee)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2034 Operations
Characteristics: Utility Information	PG&E 2022 Base Plan - Power Content Value
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restaurant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Vehicle EF	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Resident Home-Based Trip length to match 11.5 VMT per resident.
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Consumer Products	—
Operations: Landscape Equipment	Landscaping Equipment ZEE of 75% based on SORE Modeling Projections
Operations: Energy Use	No Natural Gas - PDF

BYSP - Operational 2034 Natural Gas Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2034 Natural Gas
Operational Year	2034
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	252
EDFZ	3
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Single Family Housing	300	Dwelling Unit	36.5	585,000	794,588	0.00	711	2.37 Residents/Household

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Condo/Townhouse	107	Dwelling Unit	9.10	113,420	79,462	1.00	254	2.37 Residents/Household
Apartments Mid Rise	613	Dwelling Unit	26.9	588,480	175,873	0.00	1,453	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	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
Area	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449
Energy	0.72	0.36	6.32	3.73	0.04	0.50	—	0.50	0.50	—	0.50	—	13,045	13,045	1.54	0.12	—	13,118
Water	—	—	—	—	—	—	—	—	—	—	—	110	123	233	11.3	0.27	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	2.24	1.12	19.3	9.24	0.12	1.55	0.00	1.55	1.55	0.00	1.55	1,073	29,600	30,673	109	0.42	45.8	33,578
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	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
Area	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449
Energy	0.72	0.36	6.32	3.73	0.04	0.50	—	0.50	0.50	—	0.50	—	13,045	13,045	1.54	0.12	—	13,118
Water	—	—	—	—	—	—	—	—	—	—	—	110	123	233	11.3	0.27	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	2.24	1.12	19.3	9.24	0.12	1.55	0.00	1.55	1.55	0.00	1.55	1,073	29,600	30,673	109	0.42	45.8	33,578
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.62	0.31	5.32	2.26	0.03	0.43	—	0.43	0.43	—	0.43	0.00	6,753	6,753	0.13	0.01	—	6,760
Energy	0.72	0.36	6.32	3.73	0.04	0.50	—	0.50	0.50	—	0.50	—	13,045	13,045	1.54	0.12	—	13,118
Water	—	—	—	—	—	—	—	—	—	—	—	110	123	233	11.3	0.27	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	963	0.00	963	96.3	0.00	—	3,370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8
Total	1.34	0.67	11.6	6.00	0.07	0.93	0.00	0.93	0.93	0.00	0.93	1,073	19,921	20,994	109	0.40	45.8	23,889
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.11	0.06	0.97	0.41	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,118	1,118	0.02	< 0.005	—	1,119
Energy	0.13	0.07	1.15	0.68	0.01	0.09	—	0.09	0.09	—	0.09	—	2,160	2,160	0.25	0.02	—	2,172
Water	—	—	—	—	—	—	—	—	—	—	—	18.2	20.4	38.5	1.87	0.04	—	98.6
Waste	—	—	—	—	—	—	—	—	—	—	—	159	0.00	159	15.9	0.00	—	558
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.59	7.59
Total	0.25	0.12	2.12	1.09	0.01	0.17	0.00	0.17	0.17	0.00	0.17	178	3,298	3,476	18.1	0.07	7.59	3,955

4. Operations Emissions Details

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.15	0.07	1.28	0.54	0.01	0.10	—	0.10	0.10	—	0.10	—	1,625	1,625	0.14	< 0.005	—	1,629
Condo/Townhouse	0.06	0.03	0.53	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	676	676	0.06	< 0.005	—	678
Apartments Mid Rise	0.23	0.12	1.99	0.85	0.01	0.16	—	0.16	0.16	—	0.16	—	2,529	2,529	0.22	< 0.005	—	2,536
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.72	0.36	6.32	3.73	0.04	0.50	—	0.50	0.50	—	0.50	—	7,834	7,834	0.69	0.01	—	7,856
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	0.15	0.07	1.28	0.54	0.01	0.10	—	0.10	0.10	—	0.10	—	1,625	1,625	0.14	< 0.005	—	1,629
Condo/Townhouse	0.06	0.03	0.53	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	676	676	0.06	< 0.005	—	678
Apartments Mid Rise	0.23	0.12	1.99	0.85	0.01	0.16	—	0.16	0.16	—	0.16	—	2,529	2,529	0.22	< 0.005	—	2,536
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.72	0.36	6.32	3.73	0.04	0.50	—	0.50	0.50	—	0.50	—	7,834	7,834	0.69	0.01	—	7,856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.01	0.23	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	269	269	0.02	< 0.005	—	270
Condo/Townhouse	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Apartments Mid Rise	0.04	0.02	0.36	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	419	419	0.04	< 0.005	—	420
Health Club	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.03	< 0.005	—	284
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.6	20.6	< 0.005	< 0.005	—	20.6

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High Turnover (Sit Down Restaurant)	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	156	156	0.01	< 0.005	—	157
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
Movie Theater (No Matinee)	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.4	37.4	< 0.005	< 0.005	—	37.5
Total	0.13	0.07	1.15	0.68	0.01	0.09	—	0.09	0.09	—	0.09	—	1,297	1,297	0.11	< 0.005	—	1,301

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	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449

Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.51	0.76	12.9	5.51	0.08	1.05	—	1.05	1.05	—	1.05	0.00	16,432	16,432	0.31	0.03	—	16,449
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.11	0.06	0.97	0.41	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,118	1,118	0.02	< 0.005	—	1,119
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.11	0.06	0.97	0.41	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,118	1,118	0.02	< 0.005	—	1,119

5. Activity Data

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	188
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces Appendix C	113

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	67
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	40
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	384
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	230
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
Single Family Housing	2,632,318	204	0.0330	0.0040	5,070,303
Condo/Townhouse	542,708	204	0.0330	0.0040	2,110,001
Apartments Mid Rise	2,955,331	204	0.0330	0.0040	7,890,921
Health Club	1,537,193	204	0.0330	0.0040	5,331,813
Strip Mall	414,021	204	0.0330	0.0040	387,574
High Turnover (Sit Down Restaurant)	1,039,718	204	0.0330	0.0040	2,947,783
City Park	0.00	204	0.0330	0.0040	0.00
Movie Theater (No Matinee)	203,382	204	0.0330	0.0040	705,440

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2034 Operations
Characteristics: Utility Information	Butte Choice Energy CCA with 5% residential opt-out and 15% commercial opt-out to PG&E based on RPS Goals.
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restaurant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Fleet Mix	See Notes
Operations: Vehicle EF	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Resident Home-Based Trip length to match 11.5 VMT per resident.

Operations: Hearths	No Woodstoves, Assume that 1/2 Wood Fireplaces --> No Fireplaces and 1/2 Wood Fireplaces --> NG
Operations: Consumer Products	Modeling Run for NG Emissions Only
Operations: Landscape Equipment	Zeroed out to Isolate NG
Operations: Energy Use	—
Operations: Architectural Coatings	Modeling Run for NG Emissions Only

BYSP - Operational 2042 Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2042
Operational Year	2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	210
EDFZ	3
Electric Utility	User Defined
Gas Utility	User Defined
App Version	2022.1.1.22

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
Single Family Housing	530	Dwelling Unit	73.6	1,033,500	1,602,191	0.00	1,256	2.37 Residents/Household

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Condo/Townhouse	107	Dwelling Unit	9.10	113,420	79,462	1.00	254	2.37 Residents/Household
Apartments Mid Rise	613	Dwelling Unit	26.9	588,480	175,873	0.00	1,453	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	17.5	16.8	10.1	72.4	0.16	0.13	39.1	39.2	0.12	9.89	10.0	—	16,014	16,014	0.83	1.10	20.1	16,384
Area	8.13	52.8	0.73	80.4	< 0.005	0.05	—	0.05	0.04	—	0.04	0.00	227	227	0.01	< 0.005	—	228
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	25.6	69.5	10.8	153	0.16	0.18	39.1	39.3	0.16	9.89	10.1	1,145	16,241	17,386	116	1.41	69.1	20,766
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Mobile	16.1	15.4	10.9	71.8	0.15	0.13	39.1	39.2	0.12	9.89	10.0	—	14,871	14,871	1.02	1.18	0.52	15,249
Area	0.00	45.1	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
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	16.1	60.5	10.9	71.8	0.15	0.13	39.1	39.2	0.12	9.89	10.0	1,145	14,871	16,017	116	1.48	49.6	19,404
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.1	15.4	10.2	67.6	0.15	0.13	38.1	38.3	0.13	9.65	9.77	—	15,124	15,124	0.92	1.14	8.67	15,495
Area	0.20	45.3	0.02	1.98	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.60	5.60	< 0.005	< 0.005	—	5.62
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	16.3	60.7	10.2	69.6	0.15	0.13	38.1	38.3	0.13	9.65	9.77	1,145	15,130	16,275	116	1.44	57.7	19,656
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.94	2.81	1.87	12.3	0.03	0.02	6.96	6.98	0.02	1.76	1.78	—	2,504	2,504	0.15	0.19	1.44	2,565
Area	0.04	8.27	< 0.005	0.36	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.93	0.93	< 0.005	< 0.005	—	0.93
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	20.6	0.00	20.6	2.11	0.05	—	88.2
Waste	—	—	—	—	—	—	—	—	—	—	—	169	0.00	169	16.9	0.00	—	592
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.12	8.12
Total	2.98	11.1	1.87	12.7	0.03	0.02	6.96	6.98	0.02	1.76	1.78	190	2,505	2,695	19.2	0.24	9.56	3,254

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	4.79	4.60	2.72	19.2	0.04	0.03	10.1	10.2	0.03	2.56	2.60	—	4,170	4,170	0.22	0.29	5.21	4,268
Condo/Townhouse	0.81	0.77	0.49	3.62	0.01	0.01	2.05	2.05	0.01	0.52	0.52	—	830	830	0.04	0.06	1.05	849
Apartments Mid Rise	4.29	4.09	2.67	20.2	0.05	0.04	11.7	11.8	0.04	2.96	3.00	—	4,732	4,732	0.22	0.31	6.02	4,835
Health Club	3.29	3.15	2.03	15.2	0.03	0.03	8.72	8.75	0.03	2.21	2.23	—	3,530	3,530	0.16	0.23	4.48	3,607
Strip Mall	1.91	1.84	1.02	6.82	0.01	0.01	3.30	3.31	0.01	0.83	0.85	—	1,381	1,381	0.09	0.10	1.69	1,416
High Turnover (Sit Down Restaurant)	2.37	2.30	1.18	7.44	0.01	0.01	3.18	3.19	0.01	0.81	0.82	—	1,370	1,370	0.10	0.11	1.64	1,409
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	17.5	16.8	10.1	72.4	0.16	0.13	39.1	39.2	0.12	9.89	10.0	—	16,014	16,014	0.83	1.10	20.1	16,384
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	4.42	4.22	2.93	19.2	0.04	0.03	10.1	10.2	0.03	2.56	2.60	—	3,874	3,874	0.28	0.31	0.14	3,975
Condo/Townhouse	0.75	0.71	0.53	3.50	0.01	0.01	2.05	2.05	0.01	0.52	0.52	—	771	771	0.05	0.06	0.03	789
Apartments Mid Rise	3.97	3.76	2.90	19.3	0.04	0.04	11.7	11.8	0.04	2.96	3.00	—	4,389	4,389	0.26	0.33	0.16	4,493
Health Club	3.05	2.89	2.20	14.6	0.03	0.03	8.72	8.75	0.03	2.21	2.23	—	3,274	3,274	0.20	0.25	0.12	3,353
Strip Mall	1.76	1.69	1.09	7.09	0.01	0.01	3.30	3.31	0.01	0.83	0.85	—	1,285	1,285	0.11	0.11	0.04	1,321
High Turnover (Sit Down Restaurant)	2.18	2.10	1.25	8.08	0.01	0.01	3.18	3.19	0.01	0.81	0.82	—	1,278	1,278	0.13	0.12	0.04	1,318
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	16.1	15.4	10.9	71.8	0.15	0.13	39.1	39.2	0.12	9.89	10.0	—	14,871	14,871	1.02	1.18	0.52	15,249
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.81	0.77	0.50	3.29	0.01	0.01	1.80	1.81	0.01	0.46	0.46	—	652	652	0.04	0.05	0.37	669
Condo/Townhouse	0.14	0.13	0.09	0.61	< 0.005	< 0.005	0.36	0.37	< 0.005	0.09	0.09	—	130	130	0.01	0.01	0.08	133
Apartments Mid Rise	0.72	0.69	0.50	3.36	0.01	0.01	2.08	2.09	0.01	0.53	0.53	—	739	739	0.04	0.05	0.43	756
Health Club	0.56	0.53	0.38	2.54	0.01	0.01	1.55	1.56	< 0.005	0.39	0.40	—	551	551	0.03	0.04	0.32	564
Strip Mall	0.32	0.31	0.19	1.20	< 0.005	< 0.005	0.59	0.59	< 0.005	0.15	0.15	—	216	216	0.02	0.02	0.12	222

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High Turnover (Sit Down Restaurart)	0.40	0.38	0.21	1.34	< 0.005	< 0.005	0.57	0.57	< 0.005	0.14	0.15	—	215	215	0.02	0.02	0.12	221
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	0.00	0.00	0.00
Movie Theater (No Matinee)	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	2.94	2.81	1.87	12.3	0.03	0.02	6.96	6.98	0.02	1.76	1.78	—	2,504	2,504	0.15	0.19	1.44	2,565

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
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Condo/T	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurant)	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
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
Movie Theater (No Matinee)	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	0.00	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/T ownhous e	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
Apartme nts Mid Rise	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
Health Club	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
Strip Mall	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

High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	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
Condo/Townhouse	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
Apartments Mid Rise	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
Health Club	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
Strip Mall	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
High Turnover (Sit Down Restaurart)	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
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
Movie Theater (No Matinee)	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	0.00	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

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	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
Consumer Products	—	41.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	3.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	8.13	7.66	0.73	80.4	< 0.005	0.05	—	0.05	0.04	—	0.04	—	227	227	0.01	< 0.005	—	228
Total	8.13	52.8	0.73	80.4	< 0.005	0.05	—	0.05	0.04	—	0.04	0.00	227	227	0.01	< 0.005	—	228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	—	41.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	3.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	45.1	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	—	7.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	0.04	0.03	< 0.005	0.36	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.93	0.93	< 0.005	< 0.005	—	0.93
Total	0.04	8.27	< 0.005	0.36	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.93	0.93	< 0.005	< 0.005	—	0.93

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	32.7	0.00	32.7	3.36	0.08	—	140
Condo/T ownhouse	—	—	—	—	—	—	—	—	—	—	—	6.61	0.00	6.61	0.68	0.02	—	28.4
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.9	0.00	37.9	3.88	0.09	—	162
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	0.00	14.7	1.51	0.04	—	63.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.58	0.01	—	24.4

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	0.00	13.3	1.36	0.03	—	56.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	0.00	13.2	1.36	0.03	—	56.8
Total	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	32.7	0.00	32.7	3.36	0.08	—	140
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	6.61	0.00	6.61	0.68	0.02	—	28.4
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.9	0.00	37.9	3.88	0.09	—	162
Health Club	—	—	—	—	—	—	—	—	—	—	—	14.7	0.00	14.7	1.51	0.04	—	63.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.58	0.01	—	24.4
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	13.3	0.00	13.3	1.36	0.03	—	56.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	13.2	0.00	13.2	1.36	0.03	—	56.8
Total	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.42	0.00	5.42	0.56	0.01	—	23.3
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.09	0.00	1.09	0.11	< 0.005	—	4.69
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	6.27	0.00	6.27	0.64	0.02	—	26.9
Health Club	—	—	—	—	—	—	—	—	—	—	—	2.44	0.00	2.44	0.25	0.01	—	10.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	0.00	0.94	0.10	< 0.005	—	4.03
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.20	0.00	2.20	0.23	0.01	—	9.42
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	2.19	0.00	2.19	0.22	0.01	—	9.40
Total	—	—	—	—	—	—	—	—	—	—	—	20.6	0.00	20.6	2.11	0.05	—	88.2

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	468
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.5	0.00	39.5	3.95	0.00	—	138
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	0.00	226	22.6	0.00	—	791
Health Club	—	—	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	134	0.00	134	13.4	0.00	—	468
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.5	0.00	39.5	3.95	0.00	—	138
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	0.00	226	22.6	0.00	—	791
Health Club	—	Appendix C	—	—	—	—	—	—	—	—	—	399	0.00	399	39.9	0.00	—	1,397

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	22.6	0.00	22.6	2.26	0.00	—	79.2
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
City Park	—	—	—	—	—	—	—	—	—	—	—	0.61	0.00	0.61	0.06	0.00	—	2.14
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	—	185
Total	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	22.2	0.00	22.2	2.21	0.00	—	77.5
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.55	0.00	6.55	0.65	0.00	—	22.9
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.5	0.00	37.5	3.74	0.00	—	131
Health Club	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.75	0.00	3.75	0.37	0.00	—	13.1
High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	8.75	0.00	8.75	0.87	0.00	—	30.6
Total	—	—	—	—	—	—	—	—	—	—	—	169	0.00	169	16.9	0.00	—	592

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.40	7.40
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.21	4.21
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.40	7.40
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.21	4.21
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	35.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.70	0.70
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Strip Mall	—	Appendix C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

High Turnover (Sit Down Restaurart)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.90	5.90
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.12	8.12

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
Single Family Housing	4,680	4,680	4,680	1,708,163	14,447	14,447	14,447	5,273,101
Condo/Townhouse	765	765	765	279,165	2,916	2,916	2,916	1,064,457
Apartments Mid Rise	4,003	4,003	4,003	1,461,055	16,700	16,700	16,700	6,095,521
Health Club	3,094	3,094	3,094	1,129,310	12,431	12,431	12,431	4,537,346
Strip Mall	1,918	1,918	1,918	699,924	4,699	4,699	4,699	1,715,291
High Turnover (Sit Down Restaurant)	2,444	2,444	2,444	892,118	4,536	4,536	4,536	1,655,716
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movie Theater (No Matinee)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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)
3514185	1,171,395	315,000	105,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	9.00

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)
Single Family Housing	4,650,428	0.00	0.0000	0.0000	0.00
Condo/Townhouse	542,708	0.00	0.0000	0.0000	0.00
Apartments Mid Rise	2,955,331	0.00	0.0000	0.0000	0.00
Health Club	1,537,193	0.00	0.0000	0.0000	0.00
Strip Mall	414,021	0.00	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	1,039,718	0.00	0.0000	0.0000	0.00
City Park	0.00	0.00	0.0000	0.0000	0.00
Movie Theater (No Matinee)	203,382	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	17,085,504	21,553,214
Condo/Townhouse	3,449,338	1,068,961
Apartments Mid Rise	19,761,158	2,365,903
Health Club	7,688,609	798,265
Strip Mall	2,962,901	0.00
High Turnover (Sit Down Restaurant)	6,920,569	0.00
City Park	0.00	10,068,317
Movie Theater (No Matinee)	6,907,545	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	248	—
Condo/Townhouse	73.4	—
Apartments Mid Rise	420	—
Health Club	741	—
Strip Mall	42.0	—
High Turnover (Sit Down Restaurant)	271	—
City Park	1.14	—
Movie Theater (No Matinee)	98.0	—

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
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
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
Movie Theater (No Matinee)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Movie Theater (No Matinee)	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Movie Theater (No Matinee)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2042 Operations
Characteristics: Utility Information	0 PGE Goal 2040 Carbon Free Electricity
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Hearths	No Woodstoves or Fireplaces
Operations: Landscape Equipment	95% ZEE as per SORE Modeling Projections
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	No
Operations: Fleet Mix	See Notes
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restauant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Consumer Products	—

Construction: Construction Phases	Single Family Housing Defaults
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ EMFAC2021 Factors (2024 factors for all years)
Construction: Dust From Material Movement	—
Construction: Paving	asphalt driveways
Operations: Vehicle EF	ACC2 Off-Model Revisions for LDV Only

BYSP - Operational 2042 Natural Gas Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	BYSP - Operational 2042 Natural Gas
Operational Year	2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	39.0
Location	39.7146, -121.831359
County	Butte
City	Chico
Air District	Butte County AQMD
Air Basin	Sacramento Valley
TAZ	210
EDFZ	3
Electric Utility	User Defined
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Single Family Housing	530	Dwelling Unit	73.6	1,033,500	1,602,191	0.00	1,256	2.37 Residents/Household

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Condo/Townhouse	107	Dwelling Unit	9.10	113,420	79,462	1.00	254	2.37 Residents/Household
Apartments Mid Rise	613	Dwelling Unit	26.9	588,480	175,873	0.00	1,453	2.37 Residents/Household
Health Club	130	1000sqft	11.1	130,000	72,527	0.00	—	—
Strip Mall	40.0	1000sqft	0.00	40,000	0.00	0.00	—	—
High Turnover (Sit Down Restaurant)	22.8	1000sqft	0.00	22,800	0.00	0.00	—	—
City Park	13.2	Acre	13.2	0.00	411,644	411,644	—	—
Movie Theater (No Matinee)	17.2	1000sqft	0.00	17,200	0.00	0.00	—	Events Center

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	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
Area	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152
Energy	0.84	0.42	7.30	4.15	0.05	0.58	—	0.58	0.58	—	0.58	—	9,080	9,080	0.80	0.02	—	9,105
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	2.69	1.35	23.2	10.9	0.15	1.86	0.00	1.86	1.86	0.00	1.86	1,145	29,211	30,356	116	0.36	49.1	33,411
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	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
Area	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152
Energy	0.84	0.42	7.30	4.15	0.05	0.58	—	0.58	0.58	—	0.58	—	9,080	9,080	0.80	0.02	—	9,105
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	2.69	1.35	23.2	10.9	0.15	1.86	0.00	1.86	1.86	0.00	1.86	1,145	29,211	30,356	116	0.36	49.1	33,411
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.76	0.38	6.52	2.77	0.04	0.53	—	0.53	0.53	—	0.53	0.00	8,273	8,273	0.16	0.02	—	8,282
Energy	0.84	0.42	7.30	4.15	0.05	0.58	—	0.58	0.58	—	0.58	—	9,080	9,080	0.80	0.02	—	9,105
Water	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.7	0.30	—	532
Waste	—	—	—	—	—	—	—	—	—	—	—	1,021	0.00	1,021	102	0.00	—	3,573
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1
Total	1.60	0.80	13.8	6.93	0.09	1.11	0.00	1.11	1.11	0.00	1.11	1,145	17,353	18,498	116	0.34	49.1	21,541
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.14	0.07	1.19	0.51	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,370	1,370	0.03	< 0.005	—	1,371
Energy	0.15	0.08	1.33	0.76	0.01	0.11	—	0.11	0.11	—	0.11	—	1,503	1,503	0.13	< 0.005	—	1,507
Water	—	—	—	—	—	—	—	—	—	—	—	20.6	0.00	20.6	2.11	0.05	—	88.2
Waste	—	—	—	—	—	—	—	—	—	—	—	169	0.00	169	16.9	0.00	—	592
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.12	8.12
Total	0.29	0.15	2.52	1.26	0.02	0.20	0.00	0.20	0.20	0.00	0.20	190	2,873	3,063	19.2	0.06	8.12	3,566

4. Operations Emissions Details

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.26	0.13	2.26	0.96	0.01	0.18	—	0.18	0.18	—	0.18	—	2,871	2,871	0.25	0.01	—	2,879
Condo/Townhouse	0.06	0.03	0.53	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	676	676	0.06	< 0.005	—	678
Apartments Mid Rise	0.23	0.12	1.99	0.85	0.01	0.16	—	0.16	0.16	—	0.16	—	2,529	2,529	0.22	< 0.005	—	2,536
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.84	0.42	7.30	4.15	0.05	0.58	—	0.58	0.58	—	0.58	—	9,080	9,080	0.80	0.02	—	9,105
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Appendix C																		
331																		

Single Family Housing	0.26	0.13	2.26	0.96	0.01	0.18	—	0.18	0.18	—	0.18	—	2,871	2,871	0.25	0.01	—	2,879
Condo/Townhouse	0.06	0.03	0.53	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	676	676	0.06	< 0.005	—	678
Apartments Mid Rise	0.23	0.12	1.99	0.85	0.01	0.16	—	0.16	0.16	—	0.16	—	2,529	2,529	0.22	< 0.005	—	2,536
Health Club	0.16	0.08	1.43	1.20	0.01	0.11	—	0.11	0.11	—	0.11	—	1,709	1,709	0.15	< 0.005	—	1,714
Strip Mall	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
High Turnover (Sit Down Restaurant)	0.09	0.04	0.79	0.67	< 0.005	0.06	—	0.06	0.06	—	0.06	—	945	945	0.08	< 0.005	—	947
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
Movie Theater (No Matinee)	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	226	226	0.02	< 0.005	—	227
Total	0.84	0.42	7.30	4.15	0.05	0.58	—	0.58	0.58	—	0.58	—	9,080	9,080	0.80	0.02	—	9,105
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	—	475	475	0.04	< 0.005	—	477
Condo/Townhouse	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Apartments Mid Rise	0.04	0.02	0.36	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	419	419	0.04	< 0.005	—	420
Health Club	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.03	< 0.005	—	284
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.6	20.6	< 0.005	< 0.005	—	20.6

High Turnover (Sit Down Restaurant)	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	156	156	0.01	< 0.005	—	157
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
Movie Theater (No Matinee)	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.4	37.4	< 0.005	< 0.005	—	37.5
Total	0.15	0.08	1.33	0.76	0.01	0.11	—	0.11	0.11	—	0.11	—	1,503	1,503	0.13	< 0.005	—	1,507

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	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152

Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.86	0.93	15.9	6.75	0.10	1.28	—	1.28	1.28	—	1.28	0.00	20,131	20,131	0.38	0.04	—	20,152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.14	0.07	1.19	0.51	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,370	1,370	0.03	< 0.005	—	1,371
Consumer Products	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.14	0.07	1.19	0.51	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,370	1,370	0.03	< 0.005	—	1,371

5. Activity Data

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	331
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces Appendix C	157
	334

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	67
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	40
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	384
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	230
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
Single Family Housing	4,650,428	0.00	0.0000	0.0000	8,957,535
Condo/Townhouse	542,708	0.00	0.0000	0.0000	2,110,001
Apartments Mid Rise	2,955,331	0.00	0.0000	0.0000	7,890,921
Health Club	1,537,193	0.00	0.0000	0.0000	5,331,813
Strip Mall	414,021	0.00	0.0000	0.0000	387,574
High Turnover (Sit Down Restaurant)	1,039,718	0.00	0.0000	0.0000	2,947,783
City Park	0.00	0.00	0.0000	0.0000	0.00
Movie Theater (No Matinee)	203,382	0.00	0.0000	0.0000	705,440

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	2042 Operations
Characteristics: Utility Information	Butte Choice Energy CCA with 5% residential opt-out and 15% commercial opt-out to PG&E based on RPS Goals
Land Use	2.37 Residents per DU 11.5 VMT per resident Changes per Site Plan
Operations: Hearths	No Woodstoves, Assume 1/2 Wood Fireplaces --> NG and 1/2 Wood Fireplaces ---> None Corresponds to 62.5% of Units with Fire places and 37.5% Without
Operations: Landscape Equipment	Zeroed out to Isolate NG Emissions
Operations: Energy Use	No Natural Gas - PDF
Operations: Refrigerants	SNAP Rules - Don't Report. Refrigerants have been banned.
Operations: Architectural Coatings	Model Run for NG Emissions Only
Operations: Fleet Mix	See Notes

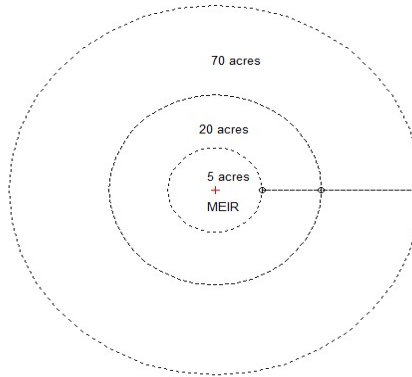
Operations: Vehicle Data	Trip Rates from Traffic Study Using ITE Trip Generation Manual, 11th Edition. Retail Trips - 40% pass-by ; Restauant Trips = 43% Pass-By Resident Home-Based Trip length to match 11.5 VMT per resident. Employee H-W Trip = 2.5 mile to match transportation information
Operations: Consumer Products	Model run for NG Emissions only
Construction: Construction Phases	Single Family Housing Defaults
Construction: Off-Road Equipment	Higher HP for Excavators from CalEEMod 2020
Construction: Off-Road Equipment EF	Tier 3+ EMFAC2021 Factors (2024 factors for all years)
Construction: Dust From Material Movement	—
Construction: Paving	asphalt driveways
Operations: Vehicle EF	ACC2 Off-Model Revisions for LDV Only

Barber Yard Specific Plan
On-Site Worst Case Cancer Screen Health Risk Assessment
Maximally Exposed Individual Receptor (MEIR)

Radius (m)	A(m2)	Project Area (acres)
80	20106	5
180	81681	20
350	283057	70

Polygon Area 1 20 acres
 81258 m2
 874662 ft2

Polygon Area 2 70 acres
 281590.5 m2
 3032024 ft2



DPM (PM10 Exhaust) Emitted After 1st Year 705 lbs
 Average Buildout Rate 10 acres per year

Assume that the DPM is distributed over 9 years - in development occurring in Project Areas surrounding the On-site MEIR
 Assuming 10-acre buildout per year

DPM Emissions 78.3 lbs/yr
 7.8 lb/acre-yr
 1.80E-04 lb/ft2-yr
 2086 Construction Hours Per Year (8 hrs/day, 5 days/wk)
 8.6E-08 lb/ft2-hr

Area 1 - Nearest Development
Most Sensitive Age Exposure (Infant 3rd Trimester -2 Years)

Years 0-2 20 acres developed
 10 acres each year - source emits for 2 years
 AERMOD calculates 1 year - Annual Average

Emission Rate 4.3E-08 lb/hr-ft2 Only emissions in 1/2 of PolyArea Each Year

Area 2- Next Nearest Development - Subsequent Years
Childhood Exposure of Same MEIR (Ages 2-9)

Years 2-9 70 acres developed
 10 acres each year - source emits for 7 years
 AERMOD calculates Annual Average

Emission Rate 1.2E-08 lb/hr-ft2 Only emissions in 1/7 of PolyArea Each Year

MODELED Uncontrolled Emission Rate

Area1 Polygon	4.31E-08 lb/hr-ft2	5.85E-08	g/s-m^2	(AERMOD Input)
Area2 Polygon	1.23E-08 lb/hr-ft2	1.67E-08	g/s-m^2	(AERMOD Input)

Results	Annual Concentration (*ug/m3)	HARP2 Cancer Risk	MEIR Risk per Million	Chronic HI
PArea 1	0.02325	7.95E-06	7.95	0.00465
PArea 2	0.00511	1.02E-06	1.02	
Total Risk - Worst-Case - MEIR			8.97E-06	
HVAC Controlled Risk* to BYSP Residents			1.79 in a million	0.00093

BYSP Buildings are constructed with HVAC & MERV 13 Filters as per Building Code
 MERV 13 filters assumed minimum 80 percent control of DPM

*HARP - HRACalc v22118 1/27/2024 5:12:53 PM - Cancer Risk - Input File: F:\Jobs\17230003\OnSiteMEIR5acre\ONSITE_HRA\NoMERVFirst2YearsHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1	MERV13	AREA1	9901	DieselExhP	0.02325	7.95E-06	2YrCancerF	*	7.95E-06

GLCs loaded successfully
Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk saved to: F:\Jobs\17230003\OnSiteMEIR5acre\ONSITE_HRA\NoMERVFirst2YearsCancerRisk.csv
HRA ran successfully

*HARP - HRACalc v22118 1/27/2024 5:16:43 PM - Cancer Risk - Input File: F:\Jobs\17230003\OnSiteMEIR5acre\NoMERV_ONSITE_HRA\NoMERVYears2to9HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1	MERV13	AREA2	9901	DieselExhP	0.00511	1.02E-06	7YrCancerf	*	1.02E-06

GLCs loaded successfully
Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 2
Total Exposure Duration: 7

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 7
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk saved to: F:\Jobs\17230003\OnSiteMEIR5acre\NoMERV_ONSITE_HRA\NoMERYears2to9CancerRisk.csv
HRA ran successfully

Dispersion Options

Titles AERMOD On-Site MEIR Conceptual Model	
Dispersion Options ☐ Regulatory Default ☒ Non-Default Options	Dispersion Coefficient Urban Population: Name (Optional): Roughness Length:
☒ Flat Terrain ☐ No Stack-Tip Downwash (NOSTD) ☐ Run in Screening Mode ☐ Conversion of NO _x to NO ₂ (OLM or PVMRM) ☐ No Checks for Non-Sequential Met Data ☐ Fast All Sources (FASTALL) ☐ Fast Area Sources (FASTAREA) ☐ Optimized Area Source Plume Depletion ☐ Gas Deposition	Output Type ☒ Concentration ☐ Total Deposition (Dry & Wet) ☐ Dry Deposition ☐ Wet Deposition
BETA Options: ☐ Capped and Horizontal Stack Releases ☐ Adjusted Friction Velocity (u^*) in AERMET (ADJ_U*) ☐ Low Wind Options ☐ SCIM (Sampled Chronological Input Model) ☐ Ignore Urban Night / Daytime Transition (NOURBTRAN)	Plume Depletion ☐ Dry Removal ☐ Wet Removal
	Output Warnings ☐ No Output Warnings ☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type PM10	Exponential Decay ☐ Yes ☒ No
Averaging Time Options Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24 ☐ Month ☒ Period ☐ Annual	Terrain Height Options ☒ Flat ☐ Elevated
Flagpole Receptors ☐ Yes ☒ No Default Height = 0.00 m	

Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

Detailed Error Listing File

Filename: Uncontrolled_ONSITEHRA.err

Source Pathway - Source Inputs

AERMOD

Source Pathway - Source Inputs

AERMOD

Polygon Area Sources

Source Type: AREA POLY

Source: PAREA1

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
1.00	5.00	5.85E-8	1.00	75	80.00	0.00
		5.85E-8			78.78	13.89
		5.85E-8			75.18	27.36
		5.85E-8			69.28	40.00
		5.85E-8			61.28	51.42
		5.85E-8			51.42	61.28
		5.85E-8			40.00	69.28
		5.85E-8			27.36	75.18
		5.85E-8			13.89	78.78
		5.85E-8			0.00	80.00
		5.85E-8			-13.89	78.78
		5.85E-8			-27.36	75.18
		5.85E-8			-40.00	69.28
		5.85E-8			-51.42	61.28
		5.85E-8			-61.28	51.42
		5.85E-8			-69.28	40.00
		5.85E-8			-75.18	27.36
		5.85E-8			-78.78	13.89
		5.85E-8			-80.00	0.00
		5.85E-8			-78.78	-13.89
		5.85E-8			-75.18	-27.36
		5.85E-8			-69.28	-40.00
		5.85E-8			-61.28	-51.42
		5.85E-8			-51.42	-61.28
		5.85E-8			-40.00	-69.28
		5.85E-8			-27.36	-75.18
		5.85E-8			-13.89	-78.78
		5.85E-8			0.00	-80.00
		5.85E-8			13.89	-78.78
		5.85E-8			27.36	-75.18

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA1

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
		5.85E-8			40.00	-69.28
		5.85E-8			51.42	-61.28
		5.85E-8			61.28	-51.42
		5.85E-8			69.28	-40.00
		5.85E-8			75.18	-27.36
		5.85E-8			78.78	-13.89
		5.85E-8			80.00	-0.14
		5.85E-8			180.00	-0.03
		5.85E-8			177.27	-31.26
		5.85E-8			169.14	-61.56
		5.85E-8			155.88	-90.00
		5.85E-8			137.89	-115.70
		5.85E-8			115.70	-137.89
		5.85E-8			90.00	-155.88
		5.85E-8			61.56	-169.14
		5.85E-8			31.26	-177.27
		5.85E-8			0.00	-180.00
		5.85E-8			-31.26	-177.27
		5.85E-8			-61.56	-169.14
		5.85E-8			-90.00	-155.88
		5.85E-8			-115.70	-137.89
		5.85E-8			-137.89	-115.70
		5.85E-8			-155.88	-90.00
		5.85E-8			-169.14	-61.56
		5.85E-8			-177.27	-31.26
		5.85E-8			-180.00	0.00
		5.85E-8			-177.27	31.26
		5.85E-8			-169.14	61.56
		5.85E-8			-155.88	90.00
		5.85E-8			-137.89	115.70
		5.85E-8			-115.70	137.89

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA1

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
1.00	5.00	5.85E-8	1.00	75	-90.00	155.88
		5.85E-8			-61.56	169.14
		5.85E-8			-31.26	177.27
		5.85E-8			0.00	180.00
		5.85E-8			31.26	177.27
		5.85E-8			61.56	169.14
		5.85E-8			90.00	155.88
		5.85E-8			115.70	137.89
		5.85E-8			137.89	115.70
		5.85E-8			155.88	90.00
		5.85E-8			169.14	61.56
		5.85E-8			177.27	31.26
		5.85E-8			180.00	0.00
		5.85E-8			80.00	0.00

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA2

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m ²)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
1.00	5.00	1.67E-8	1.40	75	180.00	0.00
		1.67E-8			177.27	31.26
		1.67E-8			169.14	61.56
		1.67E-8			155.88	90.00
		1.67E-8			137.89	115.70
		1.67E-8			115.70	137.89
		1.67E-8			90.00	155.88
		1.67E-8			61.56	169.14
		1.67E-8			31.26	177.27
		1.67E-8			0.00	180.00
		1.67E-8			-31.26	177.27
		1.67E-8			-61.56	169.14
		1.67E-8			-90.00	155.88
		1.67E-8			-115.70	137.89
		1.67E-8			-137.89	115.70
		1.67E-8			-155.88	90.00
		1.67E-8			-169.14	61.56
		1.67E-8			-177.27	31.26
		1.67E-8			-180.00	0.00
		1.67E-8			-177.27	-31.26
		1.67E-8			-169.14	-61.56
		1.67E-8			-155.88	-90.00
		1.67E-8			-137.89	-115.70
		1.67E-8			-115.70	-137.89
		1.67E-8			-90.00	-155.88
		1.67E-8			-61.56	-169.14
		1.67E-8			-31.26	-177.27
		1.67E-8			0.00	-180.00
		1.67E-8			31.26	-177.27
		1.67E-8			61.56	-169.14
		1.67E-8			90.00	-155.88

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA2

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
1.00	5.00	1.67E-8	1.40	75	115.70	-137.89
		1.67E-8			137.89	-115.70
		1.67E-8			155.88	-90.00
		1.67E-8			169.14	-61.56
		1.67E-8			177.27	-31.26
		1.67E-8			180.00	-0.31
		1.67E-8			350.00	-0.06
		1.67E-8			344.68	-60.78
		1.67E-8			328.89	-119.71
		1.67E-8			303.11	-175.00
		1.67E-8			268.12	-224.98
		1.67E-8			224.98	-268.12
		1.67E-8			175.00	-303.11
		1.67E-8			119.71	-328.89
		1.67E-8			60.78	-344.68
		1.67E-8			0.00	-350.00
		1.67E-8			-60.78	-344.68
		1.67E-8			-119.71	-328.89
		1.67E-8			-175.00	-303.11
		1.67E-8			-224.98	-268.12
		1.67E-8			-268.12	-224.98
		1.67E-8			-303.11	-175.00
		1.67E-8			-328.89	-119.71
		1.67E-8			-344.68	-60.78
		1.67E-8			-350.00	0.00
		1.67E-8			-344.68	60.78
		1.67E-8			-328.89	119.71
		1.67E-8			-303.11	175.00
		1.67E-8			-268.12	224.98
		1.67E-8			-224.98	268.12
		1.67E-8			-175.00	303.11

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: PAREA2

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m ²)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
1.00	5.00	1.67E-8	1.40	75	-119.71	328.89
		1.67E-8			-60.78	344.68
		1.67E-8			0.00	350.00
		1.67E-8			60.78	344.68
		1.67E-8			119.71	328.89
		1.67E-8			175.00	303.11
		1.67E-8			224.98	268.12
		1.67E-8			268.12	224.98
		1.67E-8			303.11	175.00
		1.67E-8			328.89	119.71
		1.67E-8			344.68	60.78
		1.67E-8			350.00	0.00
		1.67E-8			180.00	0.00

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	0.00	0.00	MEIR		

Plant Boundary Receptors

Source Pathway

AERMOD

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor: 1E6
Emission Unit Label: GRAMS/SEC
Concentration Unit Label: MICROGRAMS/M**3

Source Groups

Source Group ID: PAREA2	List of Sources in Group (Source Range or Single Sources)
	PAREA2
Source Group ID: PAREA1	List of Sources in Group (Source Range or Single Sources)
	PAREA1
Source Group ID: ALL	List of Sources in Group (Source Range or Single Sources)
	All Sources Included

Variable Emissions

Source Pathway

AERMOD

Hour-of-Day / Day-of-Week Emission Rate Variation

Scenario: Scenario 1

Source ID:		PAREA1					
Weekdays							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	1.00	1.00	1.00	1.00	1.00
Day	13 - 18	1.00	1.00	1.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:		PAREA2					
Weekdays							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	1.00	1.00	1.00	1.00	1.00
Day	13 - 18	1.00	1.00	1.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: 2015-2019 Aermet Data Chico.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: 2015-2019 Aermet Data Chico.PFL
Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 68.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface Upper Air		2015 2015			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2015 Start Hour: 1 End Date: 12/31/2019 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Results Summary

C:\AERMOD projects\BYSP_5AcrePA\BYSP_5AcrePA.isc

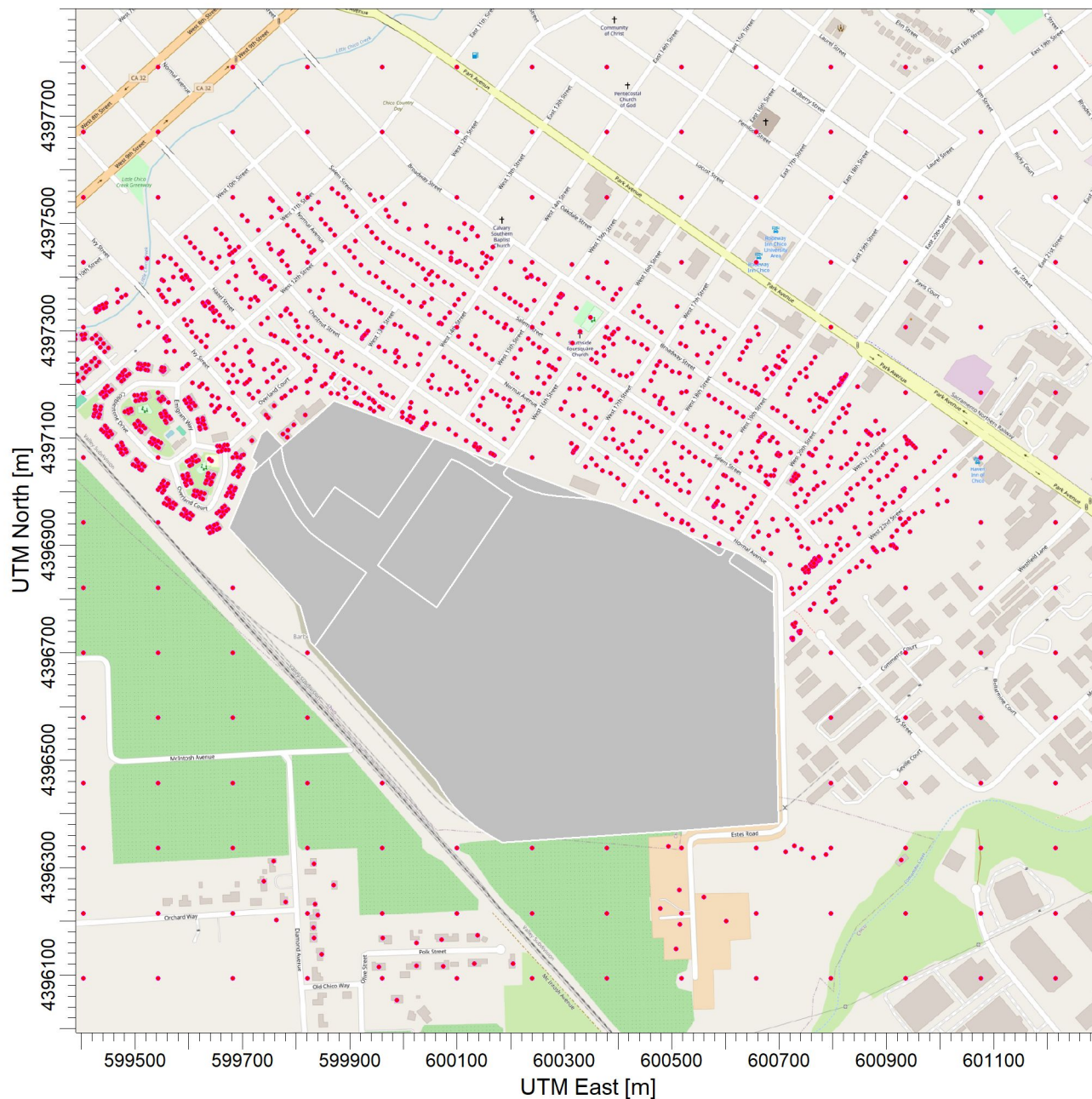
PM10 - Concentration - Source Group: PAREA1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.02325	ug/m^3	0.00	0.00	68.00	0.00	68.00	

PM10 - Concentration - Source Group: PAREA2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.00511	ug/m^3	0.00	0.00	68.00	0.00	68.00	

PROJECT TITLE:
BYSP Construction HRA - Modeling Set-Up
18 Years Exposure (2024-2042) - starting at 3rd trimester



COMMENTS:	SOURCES:	COMPANY NAME:	
	1		
	RECEPTORS:	MODELER:	
	1645		
		SCALE:	1:12,000
		0 0.4 km	
		DATE:	PROJECT NO.:
		12/29/2023	

PROJECT TITLE:

BYSP Construction HRA - Modeling Set-Up **Nearby Receptors for MEIR HARP Run**



COMMENTS:

SOURCES:

1

COMPANY NAME:

RECEPTORS:

161

MODELER:

SCALE:

1:9,000

0



0.3 km

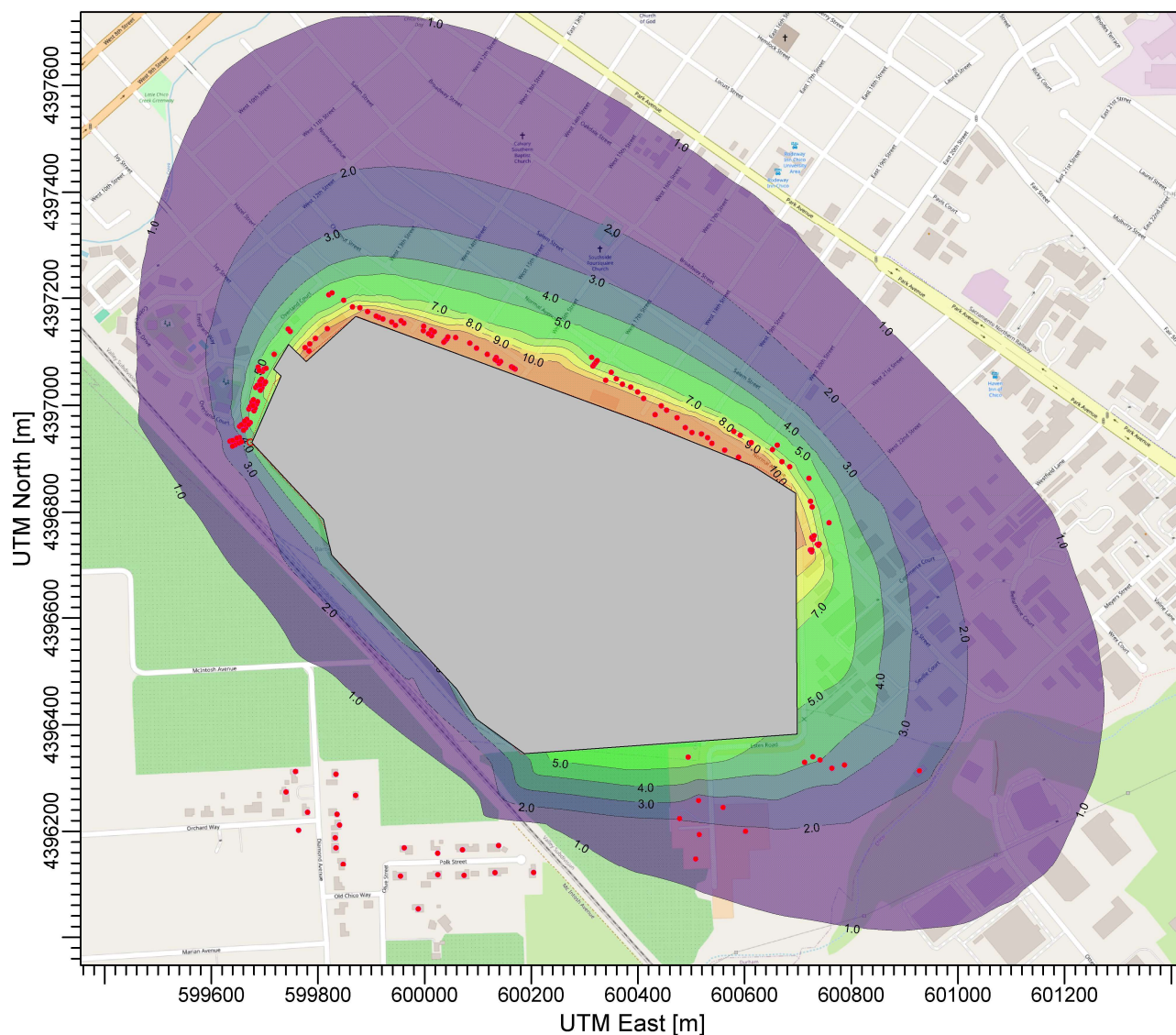
DATE:

12/29/2023

PROJECT NO.:

PROJECT TITLE:

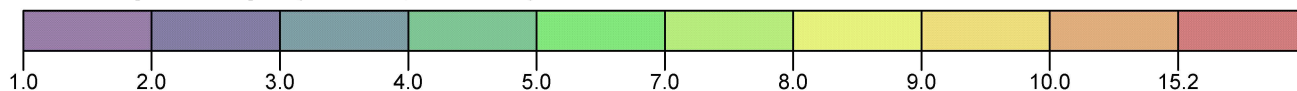
**BYSP Construction HRA - Offsite Residential Risk
Unmitigated Construction Equipment**



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL

Risk/Million

Max: 15.2 [Risk/Million] at (600169.53, 4397067.73)



COMMENTS:

SOURCES:

1

RECEPTORS:

161

OUTPUT TYPE:

Concentration

SCALE:

1:13,000

0  0.4 km

MAX:

15.2 Risk/Million

PROJECT NO.:

PROJECT INFORMATION
HARP Version: 22118
Project Name: HARP_Unmit
Project Output Directory: F:\Jobs\17230003\1723003\HARP_Unmit
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
BYSP_SITE	0	0	9901	DieselExhPM	1	195	0	1

Background PolID	PolAbbrev	Conc (ug/m^3)	MWAF
---------------------	-----------	---------------	------

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH23279
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 18

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 2
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to: F:\Jobs\17230003\1723003\HARPUnmit_Near\hra\ConUnmit_NearCancerRisk.csv

Cancer risk total by receptor saved to: F:\Jobs\17230003\1723003\HARPUnmit_Near\hra\ConUnmit_NearCancerRiskSumByRec.csv

HRA ran successfully

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1	ALL		599840.5	4396212	0.000503	9901	DieselExhPM	3.57E-07	18YrCancerRMP_Inh_FAH16to70	*	3.57E-07
2	ALL		599870.4	4396268	0.000629	9901	DieselExhPM	4.47E-07	18YrCancerRMP_Inh_FAH16to70	*	4.47E-07
3	ALL		599758	4396313	0.00058	9901	DieselExhPM	4.12E-07	18YrCancerRMP_Inh_FAH16to70	*	4.12E-07
4	ALL		600494	4396339	0.007872	9901	DieselExhPM	5.59E-06	18YrCancerRMP_Inh_FAH16to70	*	5.59E-06
5	ALL		600736.1	4396739	0.011555	9901	DieselExhPM	8.20E-06	18YrCancerRMP_Inh_FAH16to70	*	8.20E-06
6	ALL		600728.2	4396749	0.012503	9901	DieselExhPM	8.88E-06	18YrCancerRMP_Inh_FAH16to70	*	8.88E-06
7	ALL		600720.6	4396864	0.008672	9901	DieselExhPM	6.16E-06	18YrCancerRMP_Inh_FAH16to70	*	6.16E-06
8	ALL		599644.8	4396932	0.003509	9901	DieselExhPM	2.49E-06	18YrCancerRMP_Inh_FAH16to70	*	2.49E-06
9	ALL		599634.9	4396933	0.003141	9901	DieselExhPM	2.23E-06	18YrCancerRMP_Inh_FAH16to70	*	2.23E-06
10	ALL		600591.8	4396944	0.011786	9901	DieselExhPM	8.37E-06	18YrCancerRMP_Inh_FAH16to70	*	8.37E-06
11	ALL		599652.8	4396940	0.004197	9901	DieselExhPM	2.98E-06	18YrCancerRMP_Inh_FAH16to70	*	2.98E-06
12	ALL		600579.8	4396951	0.011695	9901	DieselExhPM	8.30E-06	18YrCancerRMP_Inh_FAH16to70	*	8.30E-06
13	ALL		599652.7	4396961	0.004706	9901	DieselExhPM	3.34E-06	18YrCancerRMP_Inh_FAH16to70	*	3.34E-06
14	ALL		599672.9	4396968	0.007491	9901	DieselExhPM	5.32E-06	18YrCancerRMP_Inh_FAH16to70	*	5.32E-06
15	ALL		600473.1	4396977	0.015565	9901	DieselExhPM	1.10E-05	18YrCancerRMP_Inh_FAH16to70	*	1.10E-05
16	ALL		599666.6	4396974	0.006495	9901	DieselExhPM	4.61E-06	18YrCancerRMP_Inh_FAH16to70	*	4.61E-06
17	ALL		600432.2	4396982	0.018188	9901	DieselExhPM	1.29E-05	18YrCancerRMP_Inh_FAH16to70	*	1.29E-05
18	ALL		599670.3	4396993	0.006879	9901	DieselExhPM	4.88E-06	18YrCancerRMP_Inh_FAH16to70	*	4.88E-06
19	ALL		600399.4	4397025	0.012741	9901	DieselExhPM	9.04E-06	18YrCancerRMP_Inh_FAH16to70	*	9.04E-06
20	ALL		600386.4	4397034	0.012221	9901	DieselExhPM	8.67E-06	18YrCancerRMP_Inh_FAH16to70	*	8.67E-06
21	ALL		599695	4397033	0.009458	9901	DieselExhPM	6.71E-06	18YrCancerRMP_Inh_FAH16to70	*	6.71E-06
22	ALL		599683	4397033	0.007676	9901	DieselExhPM	5.45E-06	18YrCancerRMP_Inh_FAH16to70	*	5.45E-06
23	ALL		600359.3	4397050	0.011672	9901	DieselExhPM	8.28E-06	18YrCancerRMP_Inh_FAH16to70	*	8.28E-06
24	ALL		599694.1	4397049	0.008592	9901	DieselExhPM	6.10E-06	18YrCancerRMP_Inh_FAH16to70	*	6.10E-06
25	ALL		600169.5	4397068	0.021355	9901	DieselExhPM	1.52E-05	18YrCancerRMP_Inh_FAH16to70	*	1.52E-05
26	ALL		600315.6	4397073	0.010958	9901	DieselExhPM	7.78E-06	18YrCancerRMP_Inh_FAH16to70	*	7.78E-06
27	ALL		600162.9	4397072	0.020867	9901	DieselExhPM	1.48E-05	18YrCancerRMP_Inh_FAH16to70	*	1.48E-05
28	ALL		600318.3	4397077	0.01056	9901	DieselExhPM	7.50E-06	18YrCancerRMP_Inh_FAH16to70	*	7.50E-06
29	ALL		600313	4397090	0.009679	9901	DieselExhPM	6.87E-06	18YrCancerRMP_Inh_FAH16to70	*	6.87E-06
30	ALL		600117.3	4397095	0.018595	9901	DieselExhPM	1.32E-05	18YrCancerRMP_Inh_FAH16to70	*	1.32E-05
31	ALL		599717.6	4397095	0.008544	9901	DieselExhPM	6.07E-06	18YrCancerRMP_Inh_FAH16to70	*	6.07E-06
32	ALL		600038.9	4397121	0.018755	9901	DieselExhPM	1.33E-05	18YrCancerRMP_Inh_FAH16to70	*	1.33E-05
33	ALL		600012.5	4397141	0.016033	9901	DieselExhPM	1.14E-05	18YrCancerRMP_Inh_FAH16to70	*	1.14E-05
34	ALL		599747.8	4397138	0.008233	9901	DieselExhPM	5.84E-06	18YrCancerRMP_Inh_FAH16to70	*	5.84E-06
35	ALL		599743.9	4397143	0.00777	9901	DieselExhPM	5.52E-06	18YrCancerRMP_Inh_FAH16to70	*	5.52E-06
36	ALL		599961.1	4397154	0.016614	9901	DieselExhPM	1.18E-05	18YrCancerRMP_Inh_FAH16to70	*	1.18E-05
37	ALL		599780.4	4396236	0.000488	9901	DieselExhPM	3.47E-07	18YrCancerRMP_Inh_FAH16to70	*	3.47E-07
38	ALL		599763.7	4396202	0.000435	9901	DieselExhPM	3.09E-07	18YrCancerRMP_Inh_FAH16to70	*	3.09E-07
39	ALL		599987.9	4396053	0.000405	9901	DieselExhPM	2.87E-07	18YrCancerRMP_Inh_FAH16to70	*	2.87E-07
40	ALL		600024.7	4396117	0.000512	9901	DieselExhPM	3.64E-07	18YrCancerRMP_Inh_FAH16to70	*	3.64E-07
41	ALL		600508	4396148	0.00189	9901	DieselExhPM	1.34E-06	18YrCancerRMP_Inh_FAH16to70	*	1.34E-06
42	ALL		600070.9	4396165	0.00066	9901	DieselExhPM	4.69E-07	18YrCancerRMP_Inh_FAH16to70	*	4.69E-07
43	ALL		599961.7	4396169	0.000541	9901	DieselExhPM	3.84E-07	18YrCancerRMP_Inh_FAH16to70	*	3.84E-07
44	ALL		600478.1	4396224	0.00286	9901	DieselExhPM	2.03E-06	18YrCancerRMP_Inh_FAH16to70	*	2.03E-06
45	ALL		600513.6	4396258	0.003679	9901	DieselExhPM	2.61E-06	18YrCancerRMP_Inh_FAH16to70	*	2.61E-06
46	ALL		599739.9	4396274	0.000505	9901	DieselExhPM	3.58E-07	18YrCancerRMP_Inh_FAH16to70	*	3.58E-07
47	ALL		600741.2	4396334	0.005679	9901	DieselExhPM	4.03E-06	18YrCancerRMP_Inh_FAH16to70	*	4.03E-06
48	ALL		600725.5	4396724	0.013337	9901	DieselExhPM	9.47E-06	18YrCancerRMP_Inh_FAH16to70	*	9.47E-06
49	ALL		600723.2	4396728	0.013696	9901	DieselExhPM	9.72E-06	18YrCancerRMP_Inh_FAH16to70	*	9.72E-06
50	ALL		600725.8	4396728	0.013248	9901	DieselExhPM	9.40E-06	18YrCancerRMP_Inh_FAH16to70	*	9.40E-06
51	ALL		600738.4	4396736	0.011301	9901	DieselExhPM	8.02E-06	18YrCancerRMP_Inh_FAH16to70	*	8.02E-06
52	ALL		600725.7	4396753	0.012833	9901	DieselExhPM	9.11E-06	18YrCancerRMP_Inh_FAH16to70	*	9.11E-06
53	ALL		600730.3	4396756	0.012057	9901	DieselExhPM	8.56E-06	18YrCancerRMP_Inh_FAH16to70	*	8.56E-06
54	ALL		600758.1	4396781	0.008505	9901	DieselExhPM	6.04E-06	18YrCancerRMP_Inh_FAH16to70	*	6.04E-06
55	ALL		600726.4	4396810	0.011157	9901	DieselExhPM	7.92E-06	18YrCancerRMP_Inh_FAH16to70	*	7.92E-06
56	ALL		600723.4	4396820	0.011187	9901	DieselExhPM	7.94E-06	18YrCancerRMP_Inh_FAH16to70	*	7.94E-06
57	ALL		600684.4	4396885	0.010883	9901	DieselExhPM	7.73E-06	18YrCancerRMP_Inh_FAH16to70	*	7.73E-06
58	ALL		600670.1	4396895	0.011471	9901	DieselExhPM	8.14E-06	18YrCancerRMP_Inh_FAH16to70	*	8.14E-06
59	ALL		600588.4	4396903	0.020874	9901	DieselExhPM	1.48E-05	18YrCancerRMP_Inh_FAH16to70	*	1.48E-05
60	ALL		600538.4	4396929	0.019914	9901	DieselExhPM	1.41E-05	18YrCancerRMP_Inh_FAH16to70	*	1.41E-05
61	ALL		600612.5	4396930	0.012146	9901	DieselExhPM	8.62E-06	18YrCancerRMP_Inh_FAH16to70	*	8.62E-06
62	ALL		599644.7	4396926	0.00335	9901	DieselExhPM	2.38E-06	18YrCancerRMP_Inh_FAH16to70	*	2.38E-06
63	ALL		599652.2	4396930	0.003843	9901	DieselExhPM	2.73E-06	18YrCancerRMP_Inh_FAH16to70	*	2.73E-06
64	ALL		600530.4	4396940	0.018134	9901	DieselExhPM	1.29E-05	18YrCancerRMP_Inh_FAH16to70	*	1.29E-05
65	ALL		599656.3	4396932	0.004157	9901	DieselExhPM	2.95E-06	18YrCancerRMP_Inh_FAH16to70	*	2.95E-06
66	ALL		600518.9	4396946	0.017749	9901	DieselExhPM	1.26E-05	18YrCancerRMP_Inh_FAH16to70	*	1.26E-05
67	ALL		600488.6	4396958	0.018233	9901	DieselExhPM	1.29E-05	18YrCancerRMP_Inh_FAH16to70	*	1.29E-05
68	ALL		599664.4	4396958	0.006001	9901	DieselExhPM	4.26E-06	18YrCancerRMP_Inh_FAH16to70	*	4.26E-06
69	ALL		599662.2	4396964	0.005807	9901	DieselExhPM	4.12E-06	18YrCancerRMP_Inh_FAH16to70	*	4.12E-06
70	ALL		599656.5	4396964	0.005113	9901	DieselExhPM	3.63E-06	18YrCancerRMP_Inh_FAH16to70	*	3.63E-06

*HARP - HRACalc v22118 9/25/2024 9:22:26 AM - Cancer Risk - Input File: F:\Jobs\17230003\1723003\HARPUnmit_Near\hra\ConUnmit_NearHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
71	ALL		599669.9	4396964	0.00696	9901	DieselExhPM	4.94E-06	18YrCancerRMP_Inh_FAH16to70	*	4.94E-06
72	ALL		599662.5	4396971	0.005909	9901	DieselExhPM	4.19E-06	18YrCancerRMP_Inh_FAH16to70	*	4.19E-06
73	ALL		600453.6	4396991	0.014526	9901	DieselExhPM	1.03E-05	18YrCancerRMP_Inh_FAH16to70	*	1.03E-05
74	ALL		599679.9	4396989	0.008461	9901	DieselExhPM	6.01E-06	18YrCancerRMP_Inh_FAH16to70	*	6.01E-06
75	ALL		600443.6	4396999	0.013896	9901	DieselExhPM	9.86E-06	18YrCancerRMP_Inh_FAH16to70	*	9.86E-06
76	ALL		599672.7	4396997	0.007151	9901	DieselExhPM	5.08E-06	18YrCancerRMP_Inh_FAH16to70	*	5.08E-06
77	ALL		599685.1	4397002	0.009005	9901	DieselExhPM	6.39E-06	18YrCancerRMP_Inh_FAH16to70	*	6.39E-06
78	ALL		599675.9	4397006	0.007443	9901	DieselExhPM	5.28E-06	18YrCancerRMP_Inh_FAH16to70	*	5.28E-06
79	ALL		599686.7	4397007	0.009144	9901	DieselExhPM	6.49E-06	18YrCancerRMP_Inh_FAH16to70	*	6.49E-06
80	ALL		599678.6	4397010	0.007723	9901	DieselExhPM	5.48E-06	18YrCancerRMP_Inh_FAH16to70	*	5.48E-06
81	ALL		599699.2	4397040	0.009823	9901	DieselExhPM	6.97E-06	18YrCancerRMP_Inh_FAH16to70	*	6.97E-06
82	ALL		600166.4	4397070	0.021082	9901	DieselExhPM	1.50E-05	18YrCancerRMP_Inh_FAH16to70	*	1.50E-05
83	ALL		600320.7	4397080	0.010206	9901	DieselExhPM	7.24E-06	18YrCancerRMP_Inh_FAH16to70	*	7.24E-06
84	ALL		600139.4	4397079	0.021169	9901	DieselExhPM	1.50E-05	18YrCancerRMP_Inh_FAH16to70	*	1.50E-05
85	ALL		599783.2	4397101	0.015485	9901	DieselExhPM	1.10E-05	18YrCancerRMP_Inh_FAH16to70	*	1.10E-05
86	ALL		600323.5	4397084	0.009854	9901	DieselExhPM	6.99E-06	18YrCancerRMP_Inh_FAH16to70	*	6.99E-06
87	ALL		600142.4	4397082	0.019961	9901	DieselExhPM	1.42E-05	18YrCancerRMP_Inh_FAH16to70	*	1.42E-05
88	ALL		600136.4	4397083	0.02032	9901	DieselExhPM	1.44E-05	18YrCancerRMP_Inh_FAH16to70	*	1.44E-05
89	ALL		600134.1	4397089	0.018793	9901	DieselExhPM	1.33E-05	18YrCancerRMP_Inh_FAH16to70	*	1.33E-05
90	ALL		600097	4397107	0.017481	9901	DieselExhPM	1.24E-05	18YrCancerRMP_Inh_FAH16to70	*	1.24E-05
91	ALL		599775.7	4397108	0.013885	9901	DieselExhPM	9.86E-06	18YrCancerRMP_Inh_FAH16to70	*	9.86E-06
92	ALL		600084.6	4397116	0.016282	9901	DieselExhPM	1.16E-05	18YrCancerRMP_Inh_FAH16to70	*	1.16E-05
93	ALL		600041.4	4397124	0.017825	9901	DieselExhPM	1.27E-05	18YrCancerRMP_Inh_FAH16to70	*	1.27E-05
94	ALL		600058	4397127	0.015881	9901	DieselExhPM	1.13E-05	18YrCancerRMP_Inh_FAH16to70	*	1.13E-05
95	ALL		600043.7	4397128	0.016704	9901	DieselExhPM	1.19E-05	18YrCancerRMP_Inh_FAH16to70	*	1.19E-05
96	ALL		600012.8	4397130	0.018604	9901	DieselExhPM	1.32E-05	18YrCancerRMP_Inh_FAH16to70	*	1.32E-05
97	ALL		600007.2	4397134	0.018158	9901	DieselExhPM	1.29E-05	18YrCancerRMP_Inh_FAH16to70	*	1.29E-05
98	ALL		599784.6	4397115	0.013997	9901	DieselExhPM	9.94E-06	18YrCancerRMP_Inh_FAH16to70	*	9.94E-06
99	ALL		600018	4397138	0.016322	9901	DieselExhPM	1.16E-05	18YrCancerRMP_Inh_FAH16to70	*	1.16E-05
100	ALL		599997.6	4397139	0.017478	9901	DieselExhPM	1.24E-05	18YrCancerRMP_Inh_FAH16to70	*	1.24E-05
101	ALL		599938.1	4397156	0.017768	9901	DieselExhPM	1.26E-05	18YrCancerRMP_Inh_FAH16to70	*	1.26E-05
102	ALL		599955.7	4397158	0.015957	9901	DieselExhPM	1.13E-05	18YrCancerRMP_Inh_FAH16to70	*	1.13E-05
103	ALL		599913.8	4397165	0.016867	9901	DieselExhPM	1.20E-05	18YrCancerRMP_Inh_FAH16to70	*	1.20E-05
104	ALL		599909.2	4397167	0.016473	9901	DieselExhPM	1.17E-05	18YrCancerRMP_Inh_FAH16to70	*	1.17E-05
105	ALL		599892.9	4397175	0.014851	9901	DieselExhPM	1.05E-05	18YrCancerRMP_Inh_FAH16to70	*	1.05E-05
106	ALL		599878.4	4397182	0.013269	9901	DieselExhPM	9.42E-06	18YrCancerRMP_Inh_FAH16to70	*	9.42E-06
107	ALL		600559.5	4396245	0.003423	9901	DieselExhPM	2.43E-06	18YrCancerRMP_Inh_FAH16to70	*	2.43E-06
108	ALL		600073.8	4396116	0.000556	9901	DieselExhPM	3.95E-07	18YrCancerRMP_Inh_FAH16to70	*	3.95E-07
109	ALL		599954.6	4396115	0.000455	9901	DieselExhPM	3.23E-07	18YrCancerRMP_Inh_FAH16to70	*	3.23E-07
110	ALL		599847.3	4396138	0.000417	9901	DieselExhPM	2.96E-07	18YrCancerRMP_Inh_FAH16to70	*	2.96E-07
111	ALL		600024.2	4396159	0.000587	9901	DieselExhPM	4.16E-07	18YrCancerRMP_Inh_FAH16to70	*	4.16E-07
112	ALL		599833.5	4396169	0.000443	9901	DieselExhPM	3.14E-07	18YrCancerRMP_Inh_FAH16to70	*	3.14E-07
113	ALL		600138.5	4396174	0.000806	9901	DieselExhPM	5.72E-07	18YrCancerRMP_Inh_FAH16to70	*	5.72E-07
114	ALL		599835.8	4396232	0.000529	9901	DieselExhPM	3.76E-07	18YrCancerRMP_Inh_FAH16to70	*	3.76E-07
115	ALL		600927.8	4396314	0.002984	9901	DieselExhPM	2.12E-06	18YrCancerRMP_Inh_FAH16to70	*	2.12E-06
116	ALL		600787.2	4396324	0.004667	9901	DieselExhPM	3.31E-06	18YrCancerRMP_Inh_FAH16to70	*	3.31E-06
117	ALL		600712.5	4396330	0.005833	9901	DieselExhPM	4.14E-06	18YrCancerRMP_Inh_FAH16to70	*	4.14E-06
118	ALL		600739.8	4396741	0.011076	9901	DieselExhPM	7.86E-06	18YrCancerRMP_Inh_FAH16to70	*	7.86E-06
119	ALL		600652.1	4396917	0.010444	9901	DieselExhPM	7.41E-06	18YrCancerRMP_Inh_FAH16to70	*	7.41E-06
120	ALL		600562.5	4396916	0.020457	9901	DieselExhPM	1.45E-05	18YrCancerRMP_Inh_FAH16to70	*	1.45E-05
121	ALL		600661.2	4396926	0.008786	9901	DieselExhPM	6.24E-06	18YrCancerRMP_Inh_FAH16to70	*	6.24E-06
122	ALL		599639.5	4396924	0.003134	9901	DieselExhPM	2.22E-06	18YrCancerRMP_Inh_FAH16to70	*	2.22E-06
123	ALL		599639.6	4396934	0.003342	9901	DieselExhPM	2.37E-06	18YrCancerRMP_Inh_FAH16to70	*	2.37E-06
124	ALL		599660.4	4396954	0.005359	9901	DieselExhPM	3.80E-06	18YrCancerRMP_Inh_FAH16to70	*	3.80E-06
125	ALL		599682.1	4396995	0.008705	9901	DieselExhPM	6.18E-06	18YrCancerRMP_Inh_FAH16to70	*	6.18E-06
126	ALL		599678.1	4396999	0.00793	9901	DieselExhPM	5.63E-06	18YrCancerRMP_Inh_FAH16to70	*	5.63E-06
127	ALL		600410.3	4397013	0.013824	9901	DieselExhPM	9.81E-06	18YrCancerRMP_Inh_FAH16to70	*	9.81E-06
128	ALL		599691.9	4397028	0.009173	9901	DieselExhPM	6.51E-06	18YrCancerRMP_Inh_FAH16to70	*	6.51E-06
129	ALL		600339.3	4397047	0.012894	9901	DieselExhPM	9.15E-06	18YrCancerRMP_Inh_FAH16to70	*	9.15E-06
130	ALL		599701.5	4397044	0.010002	9901	DieselExhPM	7.10E-06	18YrCancerRMP_Inh_FAH16to70	*	7.10E-06
131	ALL		599690.7	4397045	0.008293	9901	DieselExhPM	5.89E-06	18YrCancerRMP_Inh_FAH16to70	*	5.89E-06
132	ALL		600350	4397062	0.010821	9901	DieselExhPM	7.68E-06	18YrCancerRMP_Inh_FAH16to70	*	7.68E-06
133	ALL		599696.2	4397063	0.008151	9901	DieselExhPM	5.79E-06	18YrCancerRMP_Inh_FAH16to70	*	5.79E-06
134	ALL		599687.7	4397071	0.006986	9901	DieselExhPM	4.96E-06	18YrCancerRMP_Inh_FAH16to70	*	4.96E-06
135	ALL		600132.3	4397085	0.019982	9901	DieselExhPM	1.42E-05	18YrCancerRMP_Inh_FAH16to70	*	1.42E-05
136	ALL		600036	4397118	0.019844	9901	DieselExhPM	1.41E-05	18YrCancerRMP_Inh_FAH16to70	*	1.41E-05
137	ALL		599998.2	4397148	0.015438	9901	DieselExhPM	1.10E-05	18YrCancerRMP_Inh_FAH16to70	*	1.10E-05
138	ALL		599817.5	4397143	0.014034	9901	DieselExhPM	9.96E-06	18YrCancerRMP_Inh_FAH16to70	*	9.96E-06
139	ALL		599795.4	4397125	0.013948	9901	DieselExhPM	9.90E-06	18YrCancerRMP_Inh_FAH16to70	*	9.90E-06
140	ALL		599864.5	4397184	0.012495	9901	DieselExhPM	8.87E-06	18YrCancerRMP_Inh_FAH16to70	*	8.87E-06

*HARP - HRACalc v22118 9/25/2024 9:22:26 AM - Cancer Risk - Input File: F:\Jobs\17230003\1723003\HARPUnmit_Near\hra\ConUnmit_NearHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
141	ALL		599848.2	4397197	0.009923	9901	DieselExhPM	7.04E-06	18YrCancerRMP_Inh_FAH16to70	*	7.04E-06
142	ALL		599820.3	4397206	0.007948	9901	DieselExhPM	5.64E-06	18YrCancerRMP_Inh_FAH16to70	*	5.64E-06
143	ALL		599826.2	4397210	0.00793	9901	DieselExhPM	5.63E-06	18YrCancerRMP_Inh_FAH16to70	*	5.63E-06
144	ALL		600204.4	4396121	0.000763	9901	DieselExhPM	5.42E-07	18YrCancerRMP_Inh_FAH16to70	*	5.42E-07
145	ALL		600131.8	4396121	0.000638	9901	DieselExhPM	4.53E-07	18YrCancerRMP_Inh_FAH16to70	*	4.53E-07
146	ALL		600515	4396194	0.00246	9901	DieselExhPM	1.75E-06	18YrCancerRMP_Inh_FAH16to70	*	1.75E-06
147	ALL		599832.1	4396188	0.000465	9901	DieselExhPM	3.30E-07	18YrCancerRMP_Inh_FAH16to70	*	3.30E-07
148	ALL		600601.4	4396200	0.002678	9901	DieselExhPM	1.90E-06	18YrCancerRMP_Inh_FAH16to70	*	1.90E-06
149	ALL		599833.6	4396307	0.000664	9901	DieselExhPM	4.72E-07	18YrCancerRMP_Inh_FAH16to70	*	4.72E-07
150	ALL		600763.6	4396318	0.004833	9901	DieselExhPM	3.43E-06	18YrCancerRMP_Inh_FAH16to70	*	3.43E-06
151	ALL		600728	4396340	0.006178	9901	DieselExhPM	4.39E-06	18YrCancerRMP_Inh_FAH16to70	*	4.39E-06
152	ALL		599647.8	4396938	0.003813	9901	DieselExhPM	2.71E-06	18YrCancerRMP_Inh_FAH16to70	*	2.71E-06
153	ALL		600501.2	4396949	0.019066	9901	DieselExhPM	1.35E-05	18YrCancerRMP_Inh_FAH16to70	*	1.35E-05
154	ALL		600370.7	4397039	0.012335	9901	DieselExhPM	8.76E-06	18YrCancerRMP_Inh_FAH16to70	*	8.76E-06
155	ALL		599686.1	4397037	0.007957	9901	DieselExhPM	5.65E-06	18YrCancerRMP_Inh_FAH16to70	*	5.65E-06
156	ALL		599691.8	4397038	0.008736	9901	DieselExhPM	6.20E-06	18YrCancerRMP_Inh_FAH16to70	*	6.20E-06
157	ALL		599689.8	4397065	0.007379	9901	DieselExhPM	5.24E-06	18YrCancerRMP_Inh_FAH16to70	*	5.24E-06
158	ALL		599699.3	4397068	0.008275	9901	DieselExhPM	5.87E-06	18YrCancerRMP_Inh_FAH16to70	*	5.87E-06
159	ALL		599702.6	4397069	0.008614	9901	DieselExhPM	6.11E-06	18YrCancerRMP_Inh_FAH16to70	*	6.11E-06
160	ALL		599945.4	4397150	0.018856	9901	DieselExhPM	1.34E-05	18YrCancerRMP_Inh_FAH16to70	*	1.34E-05
161	ALL		599921.5	4397161	0.017324	9901	DieselExhPM	1.23E-05	18YrCancerRMP_Inh_FAH16to70	*	1.23E-05

PROJECT INFORMATION
HARP Version: 22118
Project Name: HARPMit_Near
Project Output Directory: F:\Jobs\17230003\1723003\HARPMit_Near
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
BYSP_SITE	0	0	9901	DieselExhPM	1	40	0	1
Background PolID	PolAbbrev	Conc (ug/m^3)	MWAF					

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH23279
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 18

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 2
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\Jobs\17230003\1723003\HARPMit_Near\hra\ConMit_NearCancerRisk.csv
Cancer risk total by receptor saved to: F:\Jobs\17230003\1723003\HARPMit_Near\hra\ConMit_NearCancerRiskSumByRec.csv
HRA ran successfully

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1	ALL		599840.5	4396212	0.000103	9901	DieselExhPM	7.33E-08	18YrCancerRMP_Inh_FAH16to70	*	7.33E-08
2	ALL		599870.4	4396268	0.000129	9901	DieselExhPM	9.16E-08	18YrCancerRMP_Inh_FAH16to70	*	9.16E-08
3	ALL		599758	4396313	0.000119	9901	DieselExhPM	8.44E-08	18YrCancerRMP_Inh_FAH16to70	*	8.44E-08
4	ALL		600494	4396339	0.001615	9901	DieselExhPM	1.15E-06	18YrCancerRMP_Inh_FAH16to70	*	1.15E-06
5	ALL		600736.1	4396739	0.00237	9901	DieselExhPM	1.68E-06	18YrCancerRMP_Inh_FAH16to70	*	1.68E-06
6	ALL		600728.2	4396749	0.002565	9901	DieselExhPM	1.82E-06	18YrCancerRMP_Inh_FAH16to70	*	1.82E-06
7	ALL		600720.6	4396864	0.001779	9901	DieselExhPM	1.26E-06	18YrCancerRMP_Inh_FAH16to70	*	1.26E-06
8	ALL		599644.8	4396932	0.00072	9901	DieselExhPM	5.11E-07	18YrCancerRMP_Inh_FAH16to70	*	5.11E-07
9	ALL		599634.9	4396933	0.000644	9901	DieselExhPM	4.57E-07	18YrCancerRMP_Inh_FAH16to70	*	4.57E-07
10	ALL		600591.8	4396944	0.002418	9901	DieselExhPM	1.72E-06	18YrCancerRMP_Inh_FAH16to70	*	1.72E-06
11	ALL		599652.8	4396940	0.000861	9901	DieselExhPM	6.11E-07	18YrCancerRMP_Inh_FAH16to70	*	6.11E-07
12	ALL		600579.8	4396951	0.002399	9901	DieselExhPM	1.70E-06	18YrCancerRMP_Inh_FAH16to70	*	1.70E-06
13	ALL		599652.7	4396961	0.000965	9901	DieselExhPM	6.85E-07	18YrCancerRMP_Inh_FAH16to70	*	6.85E-07
14	ALL		599672.9	4396968	0.001537	9901	DieselExhPM	1.09E-06	18YrCancerRMP_Inh_FAH16to70	*	1.09E-06
15	ALL		600473.1	4396977	0.003193	9901	DieselExhPM	2.27E-06	18YrCancerRMP_Inh_FAH16to70	*	2.27E-06
16	ALL		599666.6	4396974	0.001332	9901	DieselExhPM	9.46E-07	18YrCancerRMP_Inh_FAH16to70	*	9.46E-07
17	ALL		600432.2	4396982	0.003731	9901	DieselExhPM	2.65E-06	18YrCancerRMP_Inh_FAH16to70	*	2.65E-06
18	ALL		599670.3	4396993	0.001411	9901	DieselExhPM	1.00E-06	18YrCancerRMP_Inh_FAH16to70	*	1.00E-06
19	ALL		600399.4	4397025	0.002614	9901	DieselExhPM	1.86E-06	18YrCancerRMP_Inh_FAH16to70	*	1.86E-06
20	ALL		600386.4	4397034	0.002507	9901	DieselExhPM	1.78E-06	18YrCancerRMP_Inh_FAH16to70	*	1.78E-06
21	ALL		599695	4397033	0.00194	9901	DieselExhPM	1.38E-06	18YrCancerRMP_Inh_FAH16to70	*	1.38E-06
22	ALL		599683	4397033	0.001575	9901	DieselExhPM	1.12E-06	18YrCancerRMP_Inh_FAH16to70	*	1.12E-06
23	ALL		600359.3	4397050	0.002394	9901	DieselExhPM	1.70E-06	18YrCancerRMP_Inh_FAH16to70	*	1.70E-06
24	ALL		599694.1	4397049	0.001762	9901	DieselExhPM	1.25E-06	18YrCancerRMP_Inh_FAH16to70	*	1.25E-06
25	ALL		600169.5	4397068	0.00438	9901	DieselExhPM	3.11E-06	18YrCancerRMP_Inh_FAH16to70	*	3.11E-06
26	ALL		600315.6	4397073	0.002248	9901	DieselExhPM	1.60E-06	18YrCancerRMP_Inh_FAH16to70	*	1.60E-06
27	ALL		600162.9	4397072	0.00428	9901	DieselExhPM	3.04E-06	18YrCancerRMP_Inh_FAH16to70	*	3.04E-06
28	ALL		600318.3	4397077	0.002166	9901	DieselExhPM	1.54E-06	18YrCancerRMP_Inh_FAH16to70	*	1.54E-06
29	ALL		600313	4397090	0.001986	9901	DieselExhPM	1.41E-06	18YrCancerRMP_Inh_FAH16to70	*	1.41E-06
30	ALL		600117.3	4397095	0.003814	9901	DieselExhPM	2.71E-06	18YrCancerRMP_Inh_FAH16to70	*	2.71E-06
31	ALL		599717.6	4397095	0.001753	9901	DieselExhPM	1.24E-06	18YrCancerRMP_Inh_FAH16to70	*	1.24E-06
32	ALL		600038.9	4397121	0.003847	9901	DieselExhPM	2.73E-06	18YrCancerRMP_Inh_FAH16to70	*	2.73E-06
33	ALL		600012.5	4397141	0.003289	9901	DieselExhPM	2.33E-06	18YrCancerRMP_Inh_FAH16to70	*	2.33E-06
34	ALL		599747.8	4397138	0.001689	9901	DieselExhPM	1.20E-06	18YrCancerRMP_Inh_FAH16to70	*	1.20E-06
35	ALL		599743.9	4397143	0.001594	9901	DieselExhPM	1.13E-06	18YrCancerRMP_Inh_FAH16to70	*	1.13E-06
36	ALL		599961.1	4397154	0.003408	9901	DieselExhPM	2.42E-06	18YrCancerRMP_Inh_FAH16to70	*	2.42E-06
37	ALL		599780.4	4396236	0.0001	9901	DieselExhPM	7.11E-08	18YrCancerRMP_Inh_FAH16to70	*	7.11E-08
38	ALL		599763.7	4396202	8.93E-05	9901	DieselExhPM	6.34E-08	18YrCancerRMP_Inh_FAH16to70	*	6.34E-08
39	ALL		599987.9	4396053	8.3E-05	9901	DieselExhPM	5.89E-08	18YrCancerRMP_Inh_FAH16to70	*	5.89E-08
40	ALL		600024.7	4396117	0.000105	9901	DieselExhPM	7.46E-08	18YrCancerRMP_Inh_FAH16to70	*	7.46E-08
41	ALL		600508	4396148	0.000388	9901	DieselExhPM	2.75E-07	18YrCancerRMP_Inh_FAH16to70	*	2.75E-07
42	ALL		600070.9	4396165	0.000135	9901	DieselExhPM	9.61E-08	18YrCancerRMP_Inh_FAH16to70	*	9.61E-08
43	ALL		599961.7	4396169	0.000111	9901	DieselExhPM	7.88E-08	18YrCancerRMP_Inh_FAH16to70	*	7.88E-08
44	ALL		600478.1	4396224	0.000587	9901	DieselExhPM	4.16E-07	18YrCancerRMP_Inh_FAH16to70	*	4.16E-07
45	ALL		600513.6	4396258	0.000755	9901	DieselExhPM	5.36E-07	18YrCancerRMP_Inh_FAH16to70	*	5.36E-07
46	ALL		599739.9	4396274	0.000104	9901	DieselExhPM	7.35E-08	18YrCancerRMP_Inh_FAH16to70	*	7.35E-08
47	ALL		600741.2	4396334	0.001165	9901	DieselExhPM	8.27E-07	18YrCancerRMP_Inh_FAH16to70	*	8.27E-07
48	ALL		600725.5	4396724	0.002736	9901	DieselExhPM	1.94E-06	18YrCancerRMP_Inh_FAH16to70	*	1.94E-06
49	ALL		600723.2	4396728	0.002809	9901	DieselExhPM	1.99E-06	18YrCancerRMP_Inh_FAH16to70	*	1.99E-06
50	ALL		600725.8	4396728	0.002718	9901	DieselExhPM	1.93E-06	18YrCancerRMP_Inh_FAH16to70	*	1.93E-06
51	ALL		600738.4	4396736	0.002318	9901	DieselExhPM	1.65E-06	18YrCancerRMP_Inh_FAH16to70	*	1.65E-06
52	ALL		600725.7	4396753	0.002632	9901	DieselExhPM	1.87E-06	18YrCancerRMP_Inh_FAH16to70	*	1.87E-06
53	ALL		600730.3	4396756	0.002473	9901	DieselExhPM	1.76E-06	18YrCancerRMP_Inh_FAH16to70	*	1.76E-06
54	ALL		600758.1	4396781	0.001745	9901	DieselExhPM	1.24E-06	18YrCancerRMP_Inh_FAH16to70	*	1.24E-06
55	ALL		600726.4	4396810	0.002289	9901	DieselExhPM	1.62E-06	18YrCancerRMP_Inh_FAH16to70	*	1.62E-06
56	ALL		600723.4	4396820	0.002295	9901	DieselExhPM	1.63E-06	18YrCancerRMP_Inh_FAH16to70	*	1.63E-06
57	ALL		600684.4	4396885	0.002232	9901	DieselExhPM	1.58E-06	18YrCancerRMP_Inh_FAH16to70	*	1.58E-06
58	ALL		600670.1	4396895	0.002353	9901	DieselExhPM	1.67E-06	18YrCancerRMP_Inh_FAH16to70	*	1.67E-06
59	ALL		600588.4	4396903	0.004282	9901	DieselExhPM	3.04E-06	18YrCancerRMP_Inh_FAH16to70	*	3.04E-06
60	ALL		600538.4	4396929	0.004085	9901	DieselExhPM	2.90E-06	18YrCancerRMP_Inh_FAH16to70	*	2.90E-06
61	ALL		600612.5	4396930	0.002491	9901	DieselExhPM	1.77E-06	18YrCancerRMP_Inh_FAH16to70	*	1.77E-06
62	ALL		599644.7	4396926	0.000687	9901	DieselExhPM	4.88E-07	18YrCancerRMP_Inh_FAH16to70	*	4.88E-07
63	ALL		599652.2	4396930	0.000788	9901	DieselExhPM	5.60E-07	18YrCancerRMP_Inh_FAH16to70	*	5.60E-07
64	ALL		600530.4	4396940	0.00372	9901	DieselExhPM	2.64E-06	18YrCancerRMP_Inh_FAH16to70	*	2.64E-06
65	ALL		599656.3	4396932	0.000853	9901	DieselExhPM	6.05E-07	18YrCancerRMP_Inh_FAH16to70	*	6.05E-07
66	ALL		600518.9	4396946	0.003641	9901	DieselExhPM	2.58E-06	18YrCancerRMP_Inh_FAH16to70	*	2.58E-06
67	ALL		600488.6	4396958	0.00374	9901	DieselExhPM	2.65E-06	18YrCancerRMP_Inh_FAH16to70	*	2.65E-06
68	ALL		599664.4	4396958	0.001231	9901	DieselExhPM	8.74E-07	18YrCancerRMP_Inh_FAH16to70	*	8.74E-07
69	ALL		599662.2	4396964	0.001191	9901	DieselExhPM	8.46E-07	18YrCancerRMP_Inh_FAH16to70	*	8.46E-07
70	ALL		599656.5	4396964	0.001049	9901	DieselExhPM	7.45E-07	18YrCancerRMP_Inh_FAH16to70	*	7.45E-07

*HARP - HRACalc v22118 9/25/2024 9:16:38 AM - Cancer Risk - Input File: F:\Jobs\17230003\1723003\HARPMit_Near\hra\ConMit_NearHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
71	ALL		599669.9	4396964	0.001428	9901	DieselExhPM	1.01E-06	18YrCancerRMP_Inh_FAH16to70	*	1.01E-06
72	ALL		599662.5	4396971	0.001212	9901	DieselExhPM	8.60E-07	18YrCancerRMP_Inh_FAH16to70	*	8.60E-07
73	ALL		600453.6	4396991	0.00298	9901	DieselExhPM	2.12E-06	18YrCancerRMP_Inh_FAH16to70	*	2.12E-06
74	ALL		599679.9	4396989	0.001736	9901	DieselExhPM	1.23E-06	18YrCancerRMP_Inh_FAH16to70	*	1.23E-06
75	ALL		600443.6	4396999	0.002851	9901	DieselExhPM	2.02E-06	18YrCancerRMP_Inh_FAH16to70	*	2.02E-06
76	ALL		599672.7	4396997	0.001467	9901	DieselExhPM	1.04E-06	18YrCancerRMP_Inh_FAH16to70	*	1.04E-06
77	ALL		599685.1	4397002	0.001847	9901	DieselExhPM	1.31E-06	18YrCancerRMP_Inh_FAH16to70	*	1.31E-06
78	ALL		599675.9	4397006	0.001527	9901	DieselExhPM	1.08E-06	18YrCancerRMP_Inh_FAH16to70	*	1.08E-06
79	ALL		599686.7	4397007	0.001876	9901	DieselExhPM	1.33E-06	18YrCancerRMP_Inh_FAH16to70	*	1.33E-06
80	ALL		599678.6	4397010	0.001584	9901	DieselExhPM	1.12E-06	18YrCancerRMP_Inh_FAH16to70	*	1.12E-06
81	ALL		599699.2	4397040	0.002015	9901	DieselExhPM	1.43E-06	18YrCancerRMP_Inh_FAH16to70	*	1.43E-06
82	ALL		600166.4	4397070	0.004324	9901	DieselExhPM	3.07E-06	18YrCancerRMP_Inh_FAH16to70	*	3.07E-06
83	ALL		600320.7	4397080	0.002093	9901	DieselExhPM	1.49E-06	18YrCancerRMP_Inh_FAH16to70	*	1.49E-06
84	ALL		600139.4	4397079	0.004342	9901	DieselExhPM	3.08E-06	18YrCancerRMP_Inh_FAH16to70	*	3.08E-06
85	ALL		599783.2	4397101	0.003177	9901	DieselExhPM	2.25E-06	18YrCancerRMP_Inh_FAH16to70	*	2.25E-06
86	ALL		600323.5	4397084	0.002021	9901	DieselExhPM	1.43E-06	18YrCancerRMP_Inh_FAH16to70	*	1.43E-06
87	ALL		600142.4	4397082	0.004095	9901	DieselExhPM	2.91E-06	18YrCancerRMP_Inh_FAH16to70	*	2.91E-06
88	ALL		600136.4	4397083	0.004168	9901	DieselExhPM	2.96E-06	18YrCancerRMP_Inh_FAH16to70	*	2.96E-06
89	ALL		600134.1	4397089	0.003855	9901	DieselExhPM	2.74E-06	18YrCancerRMP_Inh_FAH16to70	*	2.74E-06
90	ALL		600097	4397107	0.003586	9901	DieselExhPM	2.55E-06	18YrCancerRMP_Inh_FAH16to70	*	2.55E-06
91	ALL		599775.7	4397108	0.002848	9901	DieselExhPM	2.02E-06	18YrCancerRMP_Inh_FAH16to70	*	2.02E-06
92	ALL		600084.6	4397116	0.00334	9901	DieselExhPM	2.37E-06	18YrCancerRMP_Inh_FAH16to70	*	2.37E-06
93	ALL		600041.4	4397124	0.003656	9901	DieselExhPM	2.60E-06	18YrCancerRMP_Inh_FAH16to70	*	2.60E-06
94	ALL		600058	4397127	0.003258	9901	DieselExhPM	2.31E-06	18YrCancerRMP_Inh_FAH16to70	*	2.31E-06
95	ALL		600043.7	4397128	0.003426	9901	DieselExhPM	2.43E-06	18YrCancerRMP_Inh_FAH16to70	*	2.43E-06
96	ALL		600012.8	4397130	0.003816	9901	DieselExhPM	2.71E-06	18YrCancerRMP_Inh_FAH16to70	*	2.71E-06
97	ALL		600007.2	4397134	0.003725	9901	DieselExhPM	2.64E-06	18YrCancerRMP_Inh_FAH16to70	*	2.64E-06
98	ALL		599784.6	4397115	0.002871	9901	DieselExhPM	2.04E-06	18YrCancerRMP_Inh_FAH16to70	*	2.04E-06
99	ALL		600018	4397138	0.003348	9901	DieselExhPM	2.38E-06	18YrCancerRMP_Inh_FAH16to70	*	2.38E-06
100	ALL		599997.6	4397139	0.003585	9901	DieselExhPM	2.54E-06	18YrCancerRMP_Inh_FAH16to70	*	2.54E-06
101	ALL		599938.1	4397156	0.003645	9901	DieselExhPM	2.59E-06	18YrCancerRMP_Inh_FAH16to70	*	2.59E-06
102	ALL		599955.7	4397158	0.003273	9901	DieselExhPM	2.32E-06	18YrCancerRMP_Inh_FAH16to70	*	2.32E-06
103	ALL		599913.8	4397165	0.00346	9901	DieselExhPM	2.46E-06	18YrCancerRMP_Inh_FAH16to70	*	2.46E-06
104	ALL		599909.2	4397167	0.003379	9901	DieselExhPM	2.40E-06	18YrCancerRMP_Inh_FAH16to70	*	2.40E-06
105	ALL		599892.9	4397175	0.003046	9901	DieselExhPM	2.16E-06	18YrCancerRMP_Inh_FAH16to70	*	2.16E-06
106	ALL		599878.4	4397182	0.002722	9901	DieselExhPM	1.93E-06	18YrCancerRMP_Inh_FAH16to70	*	1.93E-06
107	ALL		600559.5	4396245	0.000702	9901	DieselExhPM	4.98E-07	18YrCancerRMP_Inh_FAH16to70	*	4.98E-07
108	ALL		600073.8	4396116	0.000114	9901	DieselExhPM	8.10E-08	18YrCancerRMP_Inh_FAH16to70	*	8.10E-08
109	ALL		599954.6	4396115	9.33E-05	9901	DieselExhPM	6.62E-08	18YrCancerRMP_Inh_FAH16to70	*	6.62E-08
110	ALL		599847.3	4396138	8.54E-05	9901	DieselExhPM	6.07E-08	18YrCancerRMP_Inh_FAH16to70	*	6.07E-08
111	ALL		600024.2	4396159	0.00012	9901	DieselExhPM	8.54E-08	18YrCancerRMP_Inh_FAH16to70	*	8.54E-08
112	ALL		599833.5	4396169	9.08E-05	9901	DieselExhPM	6.44E-08	18YrCancerRMP_Inh_FAH16to70	*	6.44E-08
113	ALL		600138.5	4396174	0.000165	9901	DieselExhPM	1.17E-07	18YrCancerRMP_Inh_FAH16to70	*	1.17E-07
114	ALL		599835.8	4396232	0.000109	9901	DieselExhPM	7.71E-08	18YrCancerRMP_Inh_FAH16to70	*	7.71E-08
115	ALL		600927.8	4396314	0.000612	9901	DieselExhPM	4.34E-07	18YrCancerRMP_Inh_FAH16to70	*	4.34E-07
116	ALL		600787.2	4396324	0.000957	9901	DieselExhPM	6.79E-07	18YrCancerRMP_Inh_FAH16to70	*	6.79E-07
117	ALL		600712.5	4396330	0.001196	9901	DieselExhPM	8.49E-07	18YrCancerRMP_Inh_FAH16to70	*	8.49E-07
118	ALL		600739.8	4396741	0.002272	9901	DieselExhPM	1.61E-06	18YrCancerRMP_Inh_FAH16to70	*	1.61E-06
119	ALL		600652.1	4396917	0.002142	9901	DieselExhPM	1.52E-06	18YrCancerRMP_Inh_FAH16to70	*	1.52E-06
120	ALL		600562.5	4396916	0.004196	9901	DieselExhPM	2.98E-06	18YrCancerRMP_Inh_FAH16to70	*	2.98E-06
121	ALL		600661.2	4396926	0.001802	9901	DieselExhPM	1.28E-06	18YrCancerRMP_Inh_FAH16to70	*	1.28E-06
122	ALL		599639.5	4396924	0.000643	9901	DieselExhPM	4.56E-07	18YrCancerRMP_Inh_FAH16to70	*	4.56E-07
123	ALL		599639.6	4396934	0.000685	9901	DieselExhPM	4.87E-07	18YrCancerRMP_Inh_FAH16to70	*	4.87E-07
124	ALL		599660.4	4396954	0.001099	9901	DieselExhPM	7.80E-07	18YrCancerRMP_Inh_FAH16to70	*	7.80E-07
125	ALL		599682.1	4396995	0.001786	9901	DieselExhPM	1.27E-06	18YrCancerRMP_Inh_FAH16to70	*	1.27E-06
126	ALL		599678.1	4396999	0.001627	9901	DieselExhPM	1.15E-06	18YrCancerRMP_Inh_FAH16to70	*	1.15E-06
127	ALL		600410.3	4397013	0.002836	9901	DieselExhPM	2.01E-06	18YrCancerRMP_Inh_FAH16to70	*	2.01E-06
128	ALL		599691.9	4397028	0.001882	9901	DieselExhPM	1.34E-06	18YrCancerRMP_Inh_FAH16to70	*	1.34E-06
129	ALL		600339.3	4397047	0.002645	9901	DieselExhPM	1.88E-06	18YrCancerRMP_Inh_FAH16to70	*	1.88E-06
130	ALL		599701.5	4397044	0.002052	9901	DieselExhPM	1.46E-06	18YrCancerRMP_Inh_FAH16to70	*	1.46E-06
131	ALL		599690.7	4397045	0.001701	9901	DieselExhPM	1.21E-06	18YrCancerRMP_Inh_FAH16to70	*	1.21E-06
132	ALL		600350	4397062	0.00222	9901	DieselExhPM	1.58E-06	18YrCancerRMP_Inh_FAH16to70	*	1.58E-06
133	ALL		599696.2	4397063	0.001672	9901	DieselExhPM	1.19E-06	18YrCancerRMP_Inh_FAH16to70	*	1.19E-06
134	ALL		599687.7	4397071	0.001433	9901	DieselExhPM	1.02E-06	18YrCancerRMP_Inh_FAH16to70	*	1.02E-06
135	ALL		600132.3	4397085	0.004099	9901	DieselExhPM	2.91E-06	18YrCancerRMP_Inh_FAH16to70	*	2.91E-06
136	ALL		600036	4397118	0.004071	9901	DieselExhPM	2.89E-06	18YrCancerRMP_Inh_FAH16to70	*	2.89E-06
137	ALL		599998.2	4397148	0.003167	9901	DieselExhPM	2.25E-06	18YrCancerRMP_Inh_FAH16to70	*	2.25E-06
138	ALL		599817.5	4397143	0.002879	9901	DieselExhPM	2.04E-06	18YrCancerRMP_Inh_FAH16to70	*	2.04E-06
139	ALL		599795.4	4397125	0.002861	9901	DieselExhPM	2.03E-06	18YrCancerRMP_Inh_FAH16to70	*	2.03E-06
140	ALL		599864.5	4397184	0.002563	9901	DieselExhPM	1.82E-06	18YrCancerRMP_Inh_FAH16to70	*	1.82E-06

*HARP - HRACalc v22118 9/25/2024 9:16:38 AM - Cancer Risk - Input File: F:\Jobs\17230003\1723003\HARPMit_Near\hra\ConMit_NearHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK
141	ALL		599848.2	4397197	0.002035	9901	DieselExhPM	1.44E-06	18YrCancerRMP_Inh_FAH16to70	*	1.44E-06
142	ALL		599820.3	4397206	0.00163	9901	DieselExhPM	1.16E-06	18YrCancerRMP_Inh_FAH16to70	*	1.16E-06
143	ALL		599826.2	4397210	0.001627	9901	DieselExhPM	1.15E-06	18YrCancerRMP_Inh_FAH16to70	*	1.15E-06
144	ALL		600204.4	4396121	0.000157	9901	DieselExhPM	1.11E-07	18YrCancerRMP_Inh_FAH16to70	*	1.11E-07
145	ALL		600131.8	4396121	0.000131	9901	DieselExhPM	9.29E-08	18YrCancerRMP_Inh_FAH16to70	*	9.29E-08
146	ALL		600515	4396194	0.000505	9901	DieselExhPM	3.58E-07	18YrCancerRMP_Inh_FAH16to70	*	3.58E-07
147	ALL		599832.1	4396188	9.53E-05	9901	DieselExhPM	6.77E-08	18YrCancerRMP_Inh_FAH16to70	*	6.77E-08
148	ALL		600601.4	4396200	0.000549	9901	DieselExhPM	3.90E-07	18YrCancerRMP_Inh_FAH16to70	*	3.90E-07
149	ALL		599833.6	4396307	0.000136	9901	DieselExhPM	9.68E-08	18YrCancerRMP_Inh_FAH16to70	*	9.68E-08
150	ALL		600763.6	4396318	0.000991	9901	DieselExhPM	7.04E-07	18YrCancerRMP_Inh_FAH16to70	*	7.04E-07
151	ALL		600728	4396340	0.001267	9901	DieselExhPM	9.00E-07	18YrCancerRMP_Inh_FAH16to70	*	9.00E-07
152	ALL		599647.8	4396938	0.000782	9901	DieselExhPM	5.55E-07	18YrCancerRMP_Inh_FAH16to70	*	5.55E-07
153	ALL		600501.2	4396949	0.003911	9901	DieselExhPM	2.78E-06	18YrCancerRMP_Inh_FAH16to70	*	2.78E-06
154	ALL		600370.7	4397039	0.00253	9901	DieselExhPM	1.80E-06	18YrCancerRMP_Inh_FAH16to70	*	1.80E-06
155	ALL		599686.1	4397037	0.001632	9901	DieselExhPM	1.16E-06	18YrCancerRMP_Inh_FAH16to70	*	1.16E-06
156	ALL		599691.8	4397038	0.001792	9901	DieselExhPM	1.27E-06	18YrCancerRMP_Inh_FAH16to70	*	1.27E-06
157	ALL		599689.8	4397065	0.001514	9901	DieselExhPM	1.07E-06	18YrCancerRMP_Inh_FAH16to70	*	1.07E-06
158	ALL		599699.3	4397068	0.001697	9901	DieselExhPM	1.20E-06	18YrCancerRMP_Inh_FAH16to70	*	1.20E-06
159	ALL		599702.6	4397069	0.001767	9901	DieselExhPM	1.25E-06	18YrCancerRMP_Inh_FAH16to70	*	1.25E-06
160	ALL		599945.4	4397150	0.003868	9901	DieselExhPM	2.75E-06	18YrCancerRMP_Inh_FAH16to70	*	2.75E-06
161	ALL		599921.5	4397161	0.003554	9901	DieselExhPM	2.52E-06	18YrCancerRMP_Inh_FAH16to70	*	2.52E-06

Control Pathway

AERMOD

Dispersion Options

Titles F:\Jobs\17230003\1723003\1723003.isc	
Dispersion Options ☒ Regulatory Default ☐ Non-Default Options	Dispersion Coefficient Urban Population: Name (Optional): Roughness Length:
	Output Type ☒ Concentration ☐ Total Deposition (Dry & Wet) ☐ Dry Deposition ☐ Wet Deposition
	Plume Depletion ☐ Dry Removal ☐ Wet Removal
	Output Warnings ☐ No Output Warnings ☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type PM10	Exponential Decay ☒ Half-life of 4 hrs will be used
Averaging Time Options Hours ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24 ☐ Month ☒ Period ☐ Annual	Terrain Height Options ☐ Flat ☒ Elevated SO: Meters RE: Meters TG: Meters
Flagpole Receptors ☐ Yes ☒ No Default Height = 0.00 m	

Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

Detailed Error Listing File

Filename: 1723003.err

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: 2015-2019 Aermet Data Chico.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: 2015-2019 Aermet Data Chico.PFL
Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 226.90 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface Upper Air		2015 2015			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2015 Start Hour: 1 End Date: 12/31/2019 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Output Pathway

AERMOD

Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1												No

Contour Plot Files (PLOTFILE)

Path for PLOTFILES: 1723003.AD

Averaging Period	Source Group ID	High Value	File Name
1 Period	SITE SITE	1st	SITE_01.PLT SITE_PE.PLT

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	599840.47	4396211.95	SF	57.49	
2	599870.37	4396267.50	SF	57.59	
3	599758.01	4396312.50	SF	57.24	
4	600494.01	4396339.17	RR	59.22	
5	600736.07	4396739.43	MF	60.65	
6	600728.17	4396749.19	MF	60.78	
7	600720.62	4396863.56	SF	60.80	
8	599644.84	4396931.97	MF	58.22	
9	599634.93	4396932.89	MF	58.22	
10	600591.83	4396944.03	SF	60.49	
11	599652.84	4396939.76	MF	58.28	
12	600579.77	4396951.25	SF	60.28	
13	599652.73	4396960.55	MF	58.25	
14	599672.92	4396967.57	MF	58.33	
15	600473.09	4396976.76	SF	59.91	
16	599666.57	4396973.83	MF	58.27	
17	600432.18	4396982.42	SF	59.64	
18	599670.26	4396993.04	MF	58.13	
19	600399.38	4397024.93	SF	59.63	
20	600386.36	4397034.17	SF	59.67	
21	599694.95	4397032.95	MF	57.97	
22	599683.03	4397033.25	MF	57.95	
23	600359.34	4397049.63	SF	59.57	
24	599694.14	4397048.89	MF	57.98	
25	600169.53	4397067.73	MF	59.17	
26	600315.62	4397073.37	MF	59.48	
27	600162.93	4397071.78	MF	59.20	
28	600318.27	4397076.85	MF	59.47	
29	600313.04	4397089.79	SF	59.50	
30	600117.30	4397095.47	SF	59.43	

Receptor Pathway

AERMOD

31	599717.58	4397095.49	SF	58.21
32	600038.90	4397121.17	MF	59.61
33	600012.46	4397140.65	MF	59.62
34	599747.75	4397138.10	MF	58.68
35	599743.91	4397142.67	MF	58.66
36	599961.11	4397153.81	MF	59.48
37	599780.44	4396236.00	SF	57.52
38	599763.68	4396202.00	SF	57.37
39	599987.89	4396053.26	RR	57.61
40	600024.66	4396117.34	SF	57.86
41	600508.04	4396148.24	RR	59.15
42	600070.92	4396165.37	SF	58.08
43	599961.74	4396169.08	SF	57.62
44	600478.05	4396224.03	RR	59.04
45	600513.64	4396257.68	RR	59.18
46	599739.88	4396274.00	SF	57.40
47	600741.24	4396334.01	RR	59.72
48	600725.51	4396724.27	MF	60.60
49	600723.19	4396727.67	MF	60.60
50	600725.76	4396727.87	MF	60.60
51	600738.41	4396736.45	MF	60.64
52	600725.71	4396752.59	MF	60.82
53	600730.27	4396756.16	MF	60.81
54	600758.10	4396780.50	SF	60.85
55	600726.41	4396810.00	SF	60.86
56	600723.38	4396820.49	SF	60.66
57	600684.42	4396885.22	SF	60.56
58	600670.09	4396894.56	SF	60.62
59	600588.42	4396903.08	SF	60.32
60	600538.43	4396928.99	SF	60.03
61	600612.45	4396930.28	SF	60.53
62	599644.69	4396926.04	MF	58.21
63	599652.19	4396929.57	MF	58.22
64	600530.42	4396939.51	SF	59.90
65	599656.26	4396931.53	MF	58.24
66	600518.87	4396946.32	SF	59.86
67	600488.63	4396958.10	SF	59.89
68	599664.39	4396958.03	MF	58.32

Receptor Pathway

AERMOD

69	599662.22	4396963.55	MF	58.29
70	599656.47	4396963.73	MF	58.25
71	599669.93	4396964.19	MF	58.32
72	599662.46	4396970.54	MF	58.26
73	600453.62	4396990.80	SF	59.86
74	599679.87	4396989.43	MF	58.20
75	600443.55	4396998.98	SF	59.76
76	599672.65	4396997.33	MF	58.10
77	599685.10	4397002.46	MF	58.14
78	599675.88	4397005.81	MF	58.08
79	599686.72	4397006.68	MF	58.13
80	599678.58	4397010.33	MF	58.07
81	599699.24	4397040.04	MF	57.97
82	600166.44	4397069.78	MF	59.19
83	600320.72	4397080.16	MF	59.48
84	600139.44	4397078.60	MF	59.30
85	599783.20	4397101.42	MF	58.79
86	600323.54	4397083.56	MF	59.50
87	600142.37	4397082.00	MF	59.32
88	600136.37	4397082.79	MF	59.31
89	600134.09	4397089.17	MF	59.31
90	600097.01	4397106.79	SF	59.48
91	599775.72	4397107.82	MF	58.82
92	600084.59	4397116.21	SF	59.49
93	600041.40	4397123.91	MF	59.61
94	600058.01	4397126.82	SF	59.56
95	600043.67	4397127.73	MF	59.62
96	600012.84	4397130.15	MF	59.62
97	600007.21	4397133.65	MF	59.61
98	599784.59	4397114.92	MF	58.93
99	600017.96	4397137.65	MF	59.62
100	599997.56	4397139.44	MF	59.54
101	599938.09	4397155.79	MF	59.31
102	599955.66	4397158.05	MF	59.44
103	599913.79	4397164.54	MF	59.22
104	599909.22	4397166.83	MF	59.20
105	599892.85	4397175.13	MF	59.11
106	599878.40	4397182.27	MF	59.04

Receptor Pathway

AERMOD

107	600559.47	4396244.83	RR	59.36
108	600073.79	4396115.75	SF	57.88
109	599954.56	4396114.57	SF	57.41
110	599847.27	4396138.29	SF	57.46
111	600024.24	4396159.19	SF	57.90
112	599833.51	4396169.04	SF	57.36
113	600138.50	4396173.50	SF	58.13
114	599835.75	4396232.00	SF	57.73
115	600927.77	4396313.58	RR	60.51
116	600787.20	4396324.41	RR	59.79
117	600712.52	4396329.58	RR	59.88
118	600739.76	4396740.55	MF	60.66
119	600652.05	4396917.01	SF	60.56
120	600562.51	4396916.07	SF	60.29
121	600661.23	4396925.68	SF	60.68
122	599639.45	4396923.66	MF	58.22
123	599639.60	4396934.37	MF	58.23
124	599660.38	4396953.69	MF	58.32
125	599682.06	4396994.75	MF	58.16
126	599678.10	4396999.17	MF	58.13
127	600410.34	4397012.88	SF	59.66
128	599691.90	4397028.07	MF	57.98
129	600339.28	4397046.92	SF	59.44
130	599701.54	4397043.92	MF	57.98
131	599690.71	4397044.89	MF	57.98
132	600349.98	4397061.79	SF	59.62
133	599696.21	4397063.43	MF	57.97
134	599687.72	4397071.43	MF	57.96
135	600132.25	4397085.46	MF	59.31
136	600035.95	4397118.08	MF	59.60
137	599998.16	4397147.96	MF	59.50
138	599817.47	4397143.33	MF	58.93
139	599795.35	4397124.87	MF	58.96
140	599864.54	4397183.93	MF	58.99
141	599848.24	4397196.54	MF	58.88
142	599820.26	4397206.46	MF	58.27
143	599826.17	4397210.33	MF	58.25
144	600204.36	4396121.45	SF	57.94

Receptor Pathway

AERMOD

145	600131.82	4396121.04	SF	57.85
146	600514.99	4396194.18	RR	59.08
147	599832.14	4396187.91	SF	57.42
148	600601.44	4396200.19	RR	59.45
149	599833.55	4396307.38	SF	57.63
150	600763.60	4396318.45	RR	59.80
151	600727.99	4396340.07	RR	59.76
152	599647.77	4396938.32	MF	58.26
153	600501.20	4396949.07	SF	59.95
154	600370.71	4397039.39	SF	59.56
155	599686.10	4397037.07	MF	57.96
156	599691.79	4397037.97	MF	57.97
157	599689.81	4397065.20	MF	57.97
158	599699.30	4397068.11	MF	57.96
159	599702.61	4397069.11	MF	57.98
160	599945.35	4397149.77	MF	59.36
161	599921.50	4397161.29	MF	59.26

Plant Boundary Receptors

Receptor Groups

Record Number	Group ID	Group Description
1	UCART1	Receptors generated from Uniform Cartesian Grid
2	SF	
3	RR	
4	MF	
5	Public	
6	Park	

Source Pathway - Source Inputs

AERMOD

Polygon Area Sources

Source Type: AREA POLY

Source: SITE (BYSP Site)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m ²)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
58.32	5.00	1.84E-6	1.40	13	599673.40	4396930.84
		1.84E-6			599717.57	4397042.22
		1.84E-6			599871.44	4397166.79
		1.84E-6			600125.05	4397072.76
		1.84E-6			600454.60	4396952.76
		1.84E-6			600524.03	4396920.97
		1.84E-6			600627.84	4396883.74
		1.84E-6			600687.33	4396846.34
		1.84E-6			600698.85	4396387.39
		1.84E-6			600180.36	4396345.14
		1.84E-6			599838.55	4396702.32
		1.84E-6			599818.05	4396759.03
		1.84E-6			599800.14	4396794.50

Source Pathway

AERMOD

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor: 1E6
Emission Unit Label: GRAMS/SEC
Concentration Unit Label: MICROGRAMS/M**3

Source Groups

Source Group ID: SITE	List of Sources in Group (Source Range or Single Sources)
	SITE
Source Group ID: ALL	List of Sources in Group (Source Range or Single Sources)
	All Sources Included

Variable Emissions

Hour-of-Day / Day-of-Week Emission Rate Variation

Scenario: Scenario 1

Source ID:	SITE						
Weekdays							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	4.20	4.20	4.20	4.20	4.20
Day	13 - 18	4.20	4.20	4.20	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday							
Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00

Barber Yard Specific Plan
Construction Energy Summary - Fuel

Construction Fuel Usage Estimates Gallons (Diesel + Gasoline Combined)				
Project Area	Off-Road Construction Eqpt	On-Road Vehicles (Worker, Vendor & Haul)	total	VMT
PA 1	63,530	19,167	82,697	416,423
PA 2A	19,146	5,776	24,923	125,498
PA 2B	23,828	3,091	26,919	66,530
PA 2C	33,423	3,483	36,907	71,597
PA 2D	13,647	1,261	14,907	25,119
PA 3	9,251	2,383	11,634	51,840
PA 4	41,742	3,856	45,598	76,833
PA 5	47,872	4,818	52,690	98,193
PA 6	36,649	6,773	43,422	147,852
PA-7	5,512	1,663	7,175	36,129
PA 8	63,530	19,167	82,697	416,423
PA 9	56,994	5,265	62,259	104,906
PA 10	55,388	5,117	60,505	101,951
PA 11	18,488	2,037	20,525	42,427
PA 12	9,864	2,976	12,839	64,651
PA 13	41,742	3,856	45,598	76,833
PA 14	25,687	2,373	28,061	47,282
PA 15	53,783	4,969	58,751	98,996
PA 16	52,177	4,820	56,998	96,041
PA 17	58,018	7,664	65,682	133,836
PA 18	2,142	283	2,425	4,942
ALL- SOIL	13,837	8,547	22,384	57,759
	746,251	119,346	865,597	2,362,061

Construction Fuel Usage Estimates Gallons (Diesel + Gasoline Combined)			
Calendar Year	Off-Road Construction Eqpt	(Worker, Vendor & Haul)	total
2024	70,861	18,636	89,497
2025	57,024	10,089	67,113
2026	85,091	13,360	98,451
2027	66,380	10,995	77,375
2028	81,467	11,973	93,440
2029	46,852	6,990	53,842
2030	65,833	12,002	77,835
2031	30,658	6,223	36,880
2032	30,658	6,223	36,880
2033	26,960	5,815	32,775
2034	24,992	2,309	27,300
2035	13,914	1,285	15,199
2036	49,234	4,548	53,782
2037	35,320	3,263	38,583
2038	35,320	3,263	38,583
2039	-	-	-
2040	12,844	1,187	14,030
2041	12,844	1,187	14,030
Total	746,251	119,346	865,597

BYSP - Single Family Detached

Summary of Fossil Fuel Energy Use During Construction

Construction equipment fuel	40,136	gallons (diesel)
Construction vehicle fuel	3,708	gallons (gasoline, diesel)
Total construction fuel	43,844	gallons (gasoline, diesel)

Summary of Energy Use During Construction - Electricity

Year	kWh per Year
2024	0
2025	0

BYSP - Single Family Detached

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	PhaseDays	FuelConsumption
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	10	1902.5
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	10	537.1
Grading	Excavators	Diesel	Average	1	8	158	0.38	30	778.1
Grading	Graders	Diesel	Average	1	8	148	0.41	30	786.4
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	30	1902.5
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2	8	84	0.37	30	805.6
Grading	Scrapers	Diesel	Average	2	8	423	0.48	30	5262.8
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	300	12069.2
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	300	1342.7
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	300	10573.4
Building Construction	Welders	Diesel	Average	1	8	46	0.45	300	2682.7
Paving	Pavers	Diesel	Average	2	8	81	0.42	20	587.9
Paving	Paving Equipment	Diesel	Average	2	8	89	0.36	20	553.7
Paving	Rollers	Diesel	Average	2	8	36	0.38	20	236.4
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	20	115.1
									40136.0
ARB 2021, Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021 Average Value for CARB Reference Fuel - Nonroad Transient Cycle - BSFC = 0.054 gal/bhp-hr									



**Off-Road Construction Equipment
Fuel Consumption**

BYSP - Single Family Detached

Energy Calculations - Construction Vehicle Fuel

Source: AQ/GHG Appendix, CalEEMod Output, EMFAC2021 v1.0.2

Vehicle Type	Total VMT (mi)	mi/gal	gal	Vehicle Cat
Worker	66,662	25.06	2,660	LDA,LDT1,LDT2
Vendor	7,216	6.88	1,048	HHDT,MHDT
Hauling	0	6.00	0	HHDT
Onsite truck	0	6.00	0	HHDT
	73,877		3,708	gallons
	Combined VMT			

Note: Fuel Economy Factors are from EMFAC2021 for:

2024

Butte

BYSP - Single Family Attached Build

Summary of Fossil Fuel Energy Use During Construction

Construction equipment fuel	32,233	gallons (diesel)
Construction vehicle fuel	4,625	gallons (gasoline, diesel)
Total construction fuel	36,858	gallons (gasoline, diesel)

Summary of Energy Use During Construction - Electricity

Year	kWh per Year
2024	0
2025	0

BYSP - Single Family Attached Build

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	PhaseDays	FuelConsumption
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	10	1902.5
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	10	537.1
Grading	Excavators	Diesel	Average	1	8	158	0.38	20	518.7
Grading	Graders	Diesel	Average	1	8	148	0.41	20	524.3
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	20	1268.4
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	8	84	0.37	20	805.6
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	230	9253.0
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	230	4888.5
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	230	1029.4
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	230	8106.3
Building Construction	Welders	Diesel	Average	1	8	46	0.45	230	2056.8
Paving	Pavers	Diesel	Average	1	8	81	0.42	20	293.9
Paving	Paving Equipment	Diesel	Average	2	6	89	0.36	20	415.2
Paving	Rollers	Diesel	Average	2	6	36	0.38	20	177.3
Paving	Cement and Mortar Mixers	Diesel	Average	2	6	10	0.56	20	72.6
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	20	268.5
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	20	115.1
									32233.2

ARB 2021, Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021
Average Value for CARB Reference Fuel - Nonroad Transient Cycle - BSFC = 0.054 gal/bhp-hr

**Off-Road Construction Equipment
Fuel Consumption**

BYSP - Single Family Attached Build

Energy Calculations - Construction Vehicle Fuel

Source: AQ/GHG Appendix, CalEEMod Output, EMFAC2021 v1.0.2

Vehicle Type	Total VMT (mi)	mi/gal	gal	Vehicle Cat
Worker	95,780	25.06	3,821	LDA,LDT1,LDT2
Vendor	5,532	6.88	804	HHDT,MHDT
Hauling	0	6.00	0	HHDT
Onsite truck	0	6.00	0	HHDT
	101,312		4,625	gallons
	Combined VMT			

Note: Fuel Economy Factors are from EMFAC2021 for:

2024

Butte

BYSP - Multifamily Residential Build

Summary of Fossil Fuel Energy Use During Construction

Construction equipment fuel	29,009	gallons (diesel)
Construction vehicle fuel	8,752	gallons (gasoline, diesel)
Total construction fuel	37,761	gallons (gasoline, diesel)

Summary of Energy Use During Construction - Electricity

Year	kWh per Year
2024	0

BYSP - Multifamily Residential Build

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	PhaseDays	FuelConsumption
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	5	951.3
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	5	268.5
Grading	Excavators	Diesel	Average	1	8	158	0.38	8	207.5
Grading	Graders	Diesel	Average	1	8	148	0.41	8	209.7
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	8	507.3
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	8	84	0.37	8	322.2
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	230	9253.0
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	230	4888.5
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	230	1029.4
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	230	8106.3
Building Construction	Welders	Diesel	Average	1	8	46	0.45	230	2056.8
Paving	Pavers	Diesel	Average	1	8	81	0.42	18	264.5
Paving	Paving Equipment	Diesel	Average	2	6	89	0.36	18	373.7
Paving	Rollers	Diesel	Average	2	6	36	0.38	18	159.6
Paving	Cement and Mortar Mixers	Diesel	Average	2	6	10	0.56	18	65.3
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	18	241.7
									29008.9

ARB 2021, Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021
Average Value for CARB Reference Fuel - Nonroad Transient Cycle - BSFC = 0.054 gal/bhp-hr

**Off-Road Construction Equipment
Fuel Consumption**

BYSP - Multifamily Residential Build

Energy Calculations - Construction Vehicle Fuel

Source: AQ/GHG Appendix, CalEEMod Output, EMFAC2021 v1.0.2

Vehicle Type	Total VMT (mi)	mi/gal	gal	Vehicle Cat
Worker	179,083	25.06	7,145	LDA,LDT1,LDT2
Vendor	11,064	6.88	1,607	HHDT,MHDT
Hauling	0	6.00	0	HHDT
Onsite truck	0	6.00	0	HHDT
	190,147		8,752	gallons
	Combined VMT			

Note: Fuel Economy Factors are from EMFAC2021 for:

2024

Butte

BYSP - Commercial Build

Summary of Fossil Fuel Energy Use During Construction

Construction equipment fuel	29,009	gallons (diesel)
Construction vehicle fuel	3,832	gallons (gasoline, diesel)
Total construction fuel	32,841	gallons (gasoline, diesel)

Summary of Energy Use During Construction - Electricity

Year	kWh per Year
2024	0

BYSP - Commercial Build

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	PhaseDays	FuelConsumption
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	8	367	0.4	5	951.3
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	8	84	0.37	5	268.5
Grading	Excavators	Diesel	Average	1	8	158	0.38	8	207.5
Grading	Graders	Diesel	Average	1	8	148	0.41	8	209.7
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	8	507.3
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	8	84	0.37	8	322.2
Building Construction	Cranes	Diesel	Average	1	7	367	0.29	230	9253.0
Building Construction	Forklifts	Diesel	Average	3	8	82	0.2	230	4888.5
Building Construction	Generator Sets	Diesel	Average	1	8	14	0.74	230	1029.4
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37	230	8106.3
Building Construction	Welders	Diesel	Average	1	8	46	0.45	230	2056.8
Paving	Pavers	Diesel	Average	1	8	81	0.42	18	264.5
Paving	Paving Equipment	Diesel	Average	2	6	89	0.36	18	373.7
Paving	Rollers	Diesel	Average	2	6	36	0.38	18	159.6
Paving	Cement and Mortar Mixers	Diesel	Average	2	6	10	0.56	18	65.3
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	18	241.7
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	18	103.6
									29008.9

ARB 2021, Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021
Average Value for CARB Reference Fuel - Nonroad Transient Cycle - BSFC = 0.054 gal/bhp-hr

**Off-Road Construction Equipment
Fuel Consumption**

BYSP - Commercial Build

Energy Calculations - Construction Vehicle Fuel

Source: AQ/GHG Appendix, CalEEMod Output, EMFAC2021 v1.0.2

Vehicle Type	Total VMT (mi)	mi/gal	gal	Vehicle Cat
Worker	55,892	25.06	2,230	LDA,LDT1,LDT2
Vendor	11,026	6.88	1,602	HHDT,MHDT
Hauling	0	6.00	0	HHDT
Onsite truck	0	6.00	0	HHDT
	66,918		3,832	gallons
	Combined VMT			

Note: Fuel Economy Factors are from EMFAC2021 for:

2024

Butte

BYSP Demolition and Earthwork - GHG

Summary of Fossil Fuel Energy Use During Construction

Construction equipment fuel	13,837	gallons (diesel)
Construction vehicle fuel	143,953	gallons (gasoline, diesel)
Total construction fuel	157,789	gallons (gasoline, diesel)

Summary of Energy Use During Construction - Electricity

Year	kWh per Year
2024	0

BYSP Demolition and Earthwork

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	PhaseDays	FuelConsumption
Demolition	Concrete/Industrial Saws	Diesel	Average	1	8	33	0.73	20	208.1
Demolition	Excavators	Diesel	Average	3	8	158	0.38	20	1556.2
Demolition	Rubber Tired Dozers	Diesel	Average	2	8	367	0.4	20	2536.7
Grading	Excavators	Diesel	Average	1	8	158	0.38	30	778.1
Grading	Graders	Diesel	Average	1	8	148	0.41	30	786.4
Grading	Rubber Tired Dozers	Diesel	Average	1	8	367	0.4	30	1902.5
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2	8	84	0.37	30	805.6
Grading	Scrapers	Diesel	Average	2	8	423	0.48	30	5262.8
									13836.5

ARB 2021, Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021
Average Value for CARB Reference Fuel - Nonroad Transient Cycle - BSFC = 0.054 gal/bhp-hr

**Off-Road Construction Equipment
Fuel Consumption**

BYSP Demolition and Earthwork - GHG

Energy Calculations - Construction Vehicle Fuel

Source: AQ/GHG Appendix, CalEEMod Output, EMFAC2021 v1.0.2

Vehicle Type	Total VMT (mi)	mi/gal	gal	Vehicle Cat
Worker	8,498	25.06	339	LDA,LDT1,LDT2
Vendor	0	6.88	0	HHDT,MHDT
Hauling	861,882	6.00	143,614	HHDT
Onsite truck	0	6.00	0	HHDT
	870,380		143,953	gallons
	Combined VMT			

Note: Fuel Economy Factors are from EMFAC2021 for:

2024

Butte