

Appendix C

California Emissions Estimator Model Outputs

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Cochrane Commons Phase II - Full Buildout GHG

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	939.00	Space	0.00	375,600.00	0
Hotel	140.00	Room	0.00	203,280.00	0
Apartments Mid Rise	394.00	Dwelling Unit	29.57	410,000.00	1127
Condo/Townhouse	104.00	Dwelling Unit	0.00	175,000.00	297
Strip Mall	135.00	1000sqft	0.00	135,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2030
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MWhr)	2	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in Morgan Hill, Santa Clara County --> BAAQMD. Silicon Valley Clean Energy is the electricity provider.

Land Use - 104 Townhomes, 394 apartment units, 135,000 square feet of retail, and 140 key hotel. Parking lot with 939 stalls and 428 garage spaces, only modeling the parking lot stalls since residences include parking

Construction Phase - Operational Model, No Construction Scenario

Grading -

Vehicle Trips - modeling traffic in a separate output to be consistent with the traffic trip generation rate land uses

Woodstoves - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction no hearths

Area Coating - BAAQMD Regulation 8, Rule 3: Flat coatings 50 g/L and traffic markings 100 g/L

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Energy Use - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction

Water And Wastewater - Wastewater treated at a wastewater treatment plant managed by South County Regional Wastewater Authority, all aerobic plant

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - 3x 150 kW diesel generators with 201 HP. Testing for 50 hours per year or 0.14 hours per day

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	14,104.62	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	2.34	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	59.10	0.00
tblFireplaces	NumberGas	15.60	0.00
tblFireplaces	NumberNoFireplace	15.76	0.00
tblFireplaces	NumberNoFireplace	4.16	0.00
tblFireplaces	NumberWood	66.98	0.00
tblFireplaces	NumberWood	17.68	0.00
tblLandUse	LandUseSquareFeet	394,000.00	410,000.00
tblLandUse	LandUseSquareFeet	104,000.00	175,000.00

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tblLandUse	LotAcreage	8.45	0.00
tblLandUse	LotAcreage	4.67	0.00
tblLandUse	LotAcreage	10.37	29.57
tblLandUse	LotAcreage	6.50	0.00
tblLandUse	LotAcreage	3.10	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

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tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	7.88	0.00
tblWoodstoves	NumberCatalytic	2.08	0.00
tblWoodstoves	NumberNoncatalytic	7.88	0.00
tblWoodstoves	NumberNoncatalytic	2.08	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

		Highest	
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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5958	4.5958	0.0000	0.0000	4.5958
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Waste						0.0000	0.0000		0.0000	0.0000	90.8344	0.0000	90.8344	5.3682	0.0000	225.0384
Water						0.0000	0.0000		0.0000	0.0000	16.2741	0.3115	16.5856	0.0560	0.0354	28.5324
Total	4.3623	0.1118	3.7621	3.2000e-004	0.0000	0.0242	0.0242	0.0000	0.0242	0.0242	107.1085	22.4501	129.5586	5.4316	0.0354	275.8949

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5958	4.5958	0.0000	0.0000	4.5958
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Waste						0.0000	0.0000		0.0000	0.0000	90.8344	0.0000	90.8344	5.3682	0.0000	225.0384
Water						0.0000	0.0000		0.0000	0.0000	16.2741	0.3115	16.5856	0.0560	0.0354	28.5324
Total	4.3623	0.1118	3.7621	3.2000e-004	0.0000	0.0242	0.0242	0.0000	0.0242	0.0242	107.1085	22.4501	129.5586	5.4316	0.0354	275.8949

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/1/2022	5	0	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Condo/Townhouse	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Hotel	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Parking Lot	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Strip Mall	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.52337e+006	1.3820	0.0000	0.0000	1.3820
Condo/Townhouse	504241	0.4574	0.0000	0.0000	0.4574
Hotel	1.50427e+006	1.3647	0.0000	0.0000	1.3647
Parking Lot	131460	0.1193	0.0000	0.0000	0.1193
Strip Mall	1.40265e+006	1.2725	0.0000	0.0000	1.2725
Total		4.5958	0.0000	0.0000	4.5958

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.52337e+006	1.3820	0.0000	0.0000	1.3820
Condo/Townhouse	504241	0.4574	0.0000	0.0000	0.4574
Hotel	1.50427e+006	1.3647	0.0000	0.0000	1.3647
Parking Lot	131460	0.1193	0.0000	0.0000	0.1193
Strip Mall	1.40265e+006	1.2725	0.0000	0.0000	1.2725
Total		4.5958	0.0000	0.0000	4.5958

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Unmitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.5856	0.0560	0.0354	28.5324
Unmitigated	16.5856	0.0560	0.0354	28.5324

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.6707 / 16.1837	9.2597	0.0313	0.0198	15.9271
Condo/Townhouse	6.77602 / 4.27184	2.4442	8.2500e-003	5.2100e-003	4.2041
Hotel	3.55135 / 0.394594	1.2752	4.3200e-003	2.7300e-003	2.1975
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.99979 / 6.1289	3.6065	0.0122	7.6900e-003	6.2037
Total		16.5856	0.0560	0.0354	28.5324

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.6707 / 16.1837	9.2597	0.0313	0.0198	15.9271
Condo/Townhouse	6.77602 / 4.27184	2.4442	8.2500e-003	5.2100e-003	4.2041
Hotel	3.55135 / 0.394594	1.2752	4.3200e-003	2.7300e-003	2.1975
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.99979 / 6.1289	3.6065	0.0122	7.6900e-003	6.2037
Total		16.5856	0.0560	0.0354	28.5324

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	90.8344	5.3682	0.0000	225.0384
Unmitigated	90.8344	5.3682	0.0000	225.0384

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	181.24	36.7901	2.1742	0.0000	91.1459
Condo/Townhouse	47.84	9.7111	0.5739	0.0000	24.0588
Hotel	76.65	15.5593	0.9195	0.0000	38.5474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	141.75	28.7740	1.7005	0.0000	71.2863
Total		90.8344	5.3682	0.0000	225.0384

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	181.24	36.7901	2.1742	0.0000	91.1459
Condo/Townhouse	47.84	9.7111	0.5739	0.0000	24.0588
Hotel	76.65	15.5593	0.9195	0.0000	38.5474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	141.75	28.7740	1.7005	0.0000	71.2863
Total		90.8344	5.3682	0.0000	225.0384

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.14	50	201	0.73	Diesel

Boilers

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Total	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	939.00	Space	0.00	375,600.00	0
Hotel	140.00	Room	0.00	203,280.00	0
Single Family Housing	498.00	Dwelling Unit	29.57	585,000.00	1424
Strip Mall	135.00	1000sqft	0.00	135,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2030
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MWhr)	2	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in Morgan Hill, Santa Clara County --> BAAQMD. Silicon Valley Clean Energy is the electricity provider.

Land Use - 104 Townhomes, 394 apartment units modeled as 498 single-family DU for consistency with traffic, 135,000 square feet of retail, and 140 key hotel. Parking lot with 939 stalls

Construction Phase - Operational Model, No Construction Scenario

Grading -

Vehicle Trips - 8.02 trips/DU for residences, 31.8 trips/sf for retail, 11.79 trips/room for the hotel. The rates accounts for all reductions except passby reduction

Woodstoves - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction no hearths

Area Coating - BAAQMD Regulation 8, Rule 3: Nonflat coatings 100 g/L and traffic markings 100 g/L

Energy Use - Mobile Source Emissions Model

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater - Mobile Source Emissions Model

Solid Waste - Mobile Source Emissions Model

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	5.25	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24E	2.68	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24E	68.41	0.00
tblEnergyUse	T24E	2.46	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	23,474.54	0.00
tblEnergyUse	T24NG	2.34	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	124.50	0.00
tblFireplaces	NumberNoFireplace	39.84	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	NumberWood	214.14	0.00
tblGrading	AcresOfGrading	0.00	30.00
tblLandUse	LandUseSquareFeet	896,400.00	585,000.00
tblLandUse	LotAcreage	8.45	0.00
tblLandUse	LotAcreage	4.67	0.00
tblLandUse	LotAcreage	161.69	29.57
tblLandUse	LotAcreage	3.10	0.00
tblSolidWaste	SolidWasteGenerationRate	76.65	0.00
tblSolidWaste	SolidWasteGenerationRate	598.08	0.00
tblSolidWaste	SolidWasteGenerationRate	141.75	0.00
tblVehicleTrips	WD_TR	8.36	11.79
tblVehicleTrips	WD_TR	9.44	8.02
tblVehicleTrips	WD_TR	44.32	31.80
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	3,551,347.80	0.00
tblWater	IndoorWaterUseRate	32,446,704.76	0.00
tblWater	IndoorWaterUseRate	9,999,790.40	0.00
tblWater	OutdoorWaterUseRate	394,594.20	0.00
tblWater	OutdoorWaterUseRate	20,455,531.26	0.00
tblWater	OutdoorWaterUseRate	6,128,903.79	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	19.92	0.00
tblWoodstoves	NumberNoncatalytic	19.92	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

		Highest		
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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.3749	3.1622	31.4363	0.0559	6.9736	0.0584	7.0320	1.8633	0.0558	1.9191	0.0000	5,440.5168	5,440.5168	0.3572	0.2610	5,527.2208

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.3749	3.1622	31.4363	0.0559	6.9736	0.0584	7.0320	1.8633	0.0558	1.9191	0.0000	5,440.5168	5,440.5168	0.3572	0.2610	5,527.2208

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/1/2022	5	0	

Acres of Grading (Site Preparation Phase): 30

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Unmitigated	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,650.60	1,146.60	833.00	2,777,319	2,777,319
Parking Lot	0.00	0.00	0.00		
Single Family Housing	3,993.96	4,750.92	4257.90	9,561,319	9,561,319
Strip Mall	4,293.00	5,675.40	2758.05	6,577,800	6,577,800
Total	9,937.56	11,572.92	7,848.95	18,916,438	18,916,438

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Parking Lot	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Single Family Housing	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Strip Mall	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Unmitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number
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11.0 Vegetation

Cochrane Commons Phase II

Natural Gas to Electricity Conversion and Emissions Estimation Tool

Total Estimated Natural Gas Usage (kBTU)	Equivalent Electricity Usage (kBtu)	Equivalent Electricity Usage (MWh)
14,339,300	14,339,300	4,203

GHG Emission Calculations				
	UTILITY		CO ₂ e Conversion Calculations	
	Energy Intensity Factor (lbs/MWh)	Emissions (lbs)	Total CO ₂ e Emissions (lbs)	Total CO ₂ e Emissions (MT)
CO ₂	2.00	8,405	8,405	4
CH ₄	0.000	-	-	-
N ₂ O	0.000	-	-	-
TOTAL GHG EMISSIONS FROM ELECTRICITY				4

Notes

- MWh = megawatt-hours; lbs = pounds; CO₂ = carbon dioxide, CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; MT = metric tons; IPCC = Intergovernmental Panel on Climate Change; CARB = California Air Resources Board

- Natural gas usage calculated in CalEEMod.

- Energy intensity factors for Silicon Valley Clean Energy based on 2021 energy intensity factor from CalEEMod

- Natural gas to electricity conversion assumes an equal energy demand would be supplied by electricity rather than natural gas.

- CH₄ conversion assumes 1 lb CH₄ is equivalent to 25 lbs CO₂e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)

- N₂O conversion assumes 1 lb N₂O is equivalent to 298 lbs CO₂e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)