Appendix B

Air Quality Modeling Results and Health Risk Assessment

Folsom Corporate Center Apartments - Sacramento County, Winter

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

Folsom Corporate Center Apartments

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	9.90	1000sqft	0.23	9,900.00	0
Parking Lot	166.70	1000sqft	3.83	166,700.00	0
Apartments Low Rise	253.00	Dwelling Unit	8.04	253,000.00	676

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2025
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Run R2 - updated construction schedule.

Land Use - Population per City of Folsom General Plan Housing Element demographics data.
General Office Building = Clubhouse.

Construction Phase - No demolition.
Architectural coating to occur during last 3 months of building construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highay Truck = water truck.

Off-road Equipment -

Off-road Equipment - Off-Highay Truck = water truck.

Folsom Corporate Center Apartments - Sacramento County, Winter

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

Off-road Equipment - Equipemnt for excavation/installation of underground utilities.
Off-Highay Truck = water truck.

Trips and VMT - 578 haul trips during paving for import of asphalt/aggregate.

Vehicle Trips - Trip rate per TIS (T. Kear 2021).
Trip distance and purposes adusted to result in 17 VMT/capita per day based on population of 663 and VMT anaysis in the TIS (T. Kear 2021).

Construction Off-road Equipment Mitigation - Fugitive dust mitigation per SMAQMD BACT/BMPs.

Area Mitigation - No wood hearths.

Energy Mitigation - On-site solar electricity generation per 2019 Title 24.

Water Mitigation - 20% water reduction per 2019 CALGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults.

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	300.00	369.00
tblConstructionPhase	NumDays	20.00	65.00
tblLandUse	LotAcreage	15.81	8.04
tblTripsAndVMT	HaulingTripNumber	0.00	578.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	41.00	0.00
tblVehicleTrips	HS_TTP	12.50	0.00
tblVehicleTrips	HW_TL	10.00	8.19
tblVehicleTrips	HW_TTP	46.50	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	5.44
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	6.28	5.44
tblVehicleTrips	SU_TR	0.70	0.00

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

tblVehicleTrips	WD_TR	7.32	5.44
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

Folsom Corporate Center Apartments - Sacramento County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	3.9627	40.9020	31.3101	0.0702	19.8092	1.7088	21.4955	10.1428	1.5721	11.6943	0.0000	6,800.3527	6,800.3527	2.1568	0.3278	6,855.7568
2023	53.5855	19.0827	26.1622	0.0595	2.6651	0.7972	3.4623	0.7146	0.7543	1.4689	0.0000	5,919.2490	5,919.2490	0.7217	0.2295	6,005.6868
2024	53.4117	17.9361	25.5692	0.0587	2.6651	0.7001	3.3652	0.7146	0.6621	1.3767	0.0000	5,849.8384	5,849.8384	0.7101	0.2224	5,933.8589
Maximum	**53.5855**	**40.9020**	**31.3101**	**0.0702**	**19.8092**	**1.7088**	**21.4955**	**10.1428**	**1.5721**	**11.6943**	**0.0000**	**6,800.3527**	**6,800.3527**	**2.1568**	**0.3278**	**6,855.7568**

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	lb/day										lb/day					
2022	3.9627	40.9020	31.3101	0.0702	8.9978	1.7088	10.6842	4.5865	1.5721	6.1379	0.0000	6,800.3527	6,800.3527	2.1568	0.3278	6,855.7568
2023	53.5855	19.0827	26.1622	0.0595	2.6651	0.7972	3.4623	0.7146	0.7543	1.4689	0.0000	5,919.2490	5,919.2490	0.7217	0.2295	6,005.6868
2024	53.4117	17.9361	25.5692	0.0587	2.6651	0.7001	3.3652	0.7146	0.6621	1.3767	0.0000	5,849.8384	5,849.8384	0.7101	0.2224	5,933.8589
Maximum	**53.5855**	**40.9020**	**31.3101**	**0.0702**	**8.9978**	**1.7088**	**10.6842**	**4.5865**	**1.5721**	**6.1379**	**0.0000**	**6,800.3527**	**6,800.3527**	**2.1568**	**0.3278**	**6,855.7568**

Folsom Corporate Center Apartments - Sacramento County, Winter

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	43.01	0.00	38.17	48.02	0.00	38.21	0.00	0.00	0.00	0.00	0.00	0.00

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

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	lb/day										lb/day					
Area	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Energy	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
Mobile	3.6515	5.3829	38.4617	0.0767	8.6505	0.0612	8.7117	2.3060	0.0572	2.3632		8,013.4745	8,013.4745	0.5619	0.4053	8,148.3055
Total	**10.9606**	**6.4023**	**59.6786**	**0.0827**	**8.6505**	**0.2398**	**8.8903**	**2.3060**	**0.2358**	**2.5418**	**0.0000**	**9,043.0594**	**9,043.0594**	**0.6170**	**0.4235**	**9,184.6874**

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	lb/day										lb/day					
Area	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Energy	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
Mobile	3.6515	5.3829	38.4617	0.0767	8.6505	0.0612	8.7117	2.3060	0.0572	2.3632		8,013.4745	8,013.4745	0.5619	0.4053	8,148.3055
Total	**10.9606**	**6.4023**	**59.6786**	**0.0827**	**8.6505**	**0.2398**	**8.8903**	**2.3060**	**0.2358**	**2.5418**	**0.0000**	**9,043.0594**	**9,043.0594**	**0.6170**	**0.4235**	**9,184.6874**

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	N20	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	5/25/2022	5/31/2022	5	5	
2	Grading	Grading	6/1/2022	7/31/2022	5	43	
3	Underground Utilities	Trenching	8/1/2022	8/31/2022	5	23	
4	Paving	Paving	9/1/2022	9/28/2022	5	20	
5	Building Construction	Building Construction	10/1/2022	2/29/2024	5	369	
6	Architectural Coating	Architectural Coating	12/1/2023	2/29/2024	5	65	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 129

Acres of Paving: 3.83

Residential Indoor: 512,325; Residential Outdoor: 170,775; Non-Residential Indoor: 14,850; Non-Residential Outdoor: 4,950; Striped Parking Area: 10,002 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

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

Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Off-Highway Trucks	1	4.00	402	0.38
Underground Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	255.00	56.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	578.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.4344	35.0904	21.3771	0.0447		1.6856	1.6856		1.5507	1.5507		4,325.5545	4,325.5545	1.3990		4,360.5288
Total	**3.4344**	**35.0904**	**21.3771**	**0.0447**	**19.6570**	**1.6856**	**21.3426**	**10.1025**	**1.5507**	**11.6532**		**4,325.5545**	**4,325.5545**	**1.3990**		**4,360.5288**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.4344	35.0904	21.3771	0.0447		1.6856	1.6856		1.5507	1.5507	0.0000	4,325.5545	4,325.5545	1.3990		4,360.5288
Total	**3.4344**	**35.0904**	**21.3771**	**0.0447**	**8.8457**	**1.6856**	**10.5312**	**4.5461**	**1.5507**	**6.0968**	**0.0000**	**4,325.5545**	**4,325.5545**	**1.3990**		**4,360.5288**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

3.3 Grading - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.8890	40.8503	30.7209	0.0687		1.7079	1.7079		1.5712	1.5712		6,650.9032	6,650.9032	2.1510		6,704.6791
Total	**3.8890**	**40.8503**	**30.7209**	**0.0687**	**9.2036**	**1.7079**	**10.9115**	**3.6538**	**1.5712**	**5.2250**		**6,650.9032**	**6,650.9032**	**2.1510**		**6,704.6791**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0736	0.0517	0.5893	1.4700e-003	0.1750	9.5000e-004	0.1759	0.0464	8.7000e-004	0.0473		149.4495	149.4495	5.7100e-003	4.9800e-003	151.0777
Total	**0.0736**	**0.0517**	**0.5893**	**1.4700e-003**	**0.1750**	**9.5000e-004**	**0.1759**	**0.0464**	**8.7000e-004**	**0.0473**		**149.4495**	**149.4495**	**5.7100e-003**	**4.9800e-003**	**151.0777**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.8890	40.8503	30.7209	0.0687		1.7079	1.7079		1.5712	1.5712	0.0000	6,650.9032	6,650.9032	2.1510		6,704.6791
Total	**3.8890**	**40.8503**	**30.7209**	**0.0687**	**4.1416**	**1.7079**	**5.8495**	**1.6442**	**1.5712**	**3.2154**	**0.0000**	**6,650.9032**	**6,650.9032**	**2.1510**		**6,704.6791**

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0736	0.0517	0.5893	1.4700e-003	0.1750	9.5000e-004	0.1759	0.0464	8.7000e-004	0.0473		149.4495	149.4495	5.7100e-003	4.9800e-003	151.0777
Total	**0.0736**	**0.0517**	**0.5893**	**1.4700e-003**	**0.1750**	**9.5000e-004**	**0.1759**	**0.0464**	**8.7000e-004**	**0.0473**		**149.4495**	**149.4495**	**5.7100e-003**	**4.9800e-003**	**151.0777**

3.4 Underground Utilities - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.0874	10.1601	10.9416	0.0243		0.4406	0.4406		0.4054	0.4054		2,347.6501	2,347.6501	0.7593		2,366.6321
Total	**1.0874**	**10.1601**	**10.9416**	**0.0243**		**0.4406**	**0.4406**		**0.4054**	**0.4054**		**2,347.6501**	**2,347.6501**	**0.7593**		**2,366.6321**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.4 Underground Utilities - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	**0.0416**	**0.0292**	**0.3331**	**8.3000e-004**	**0.0989**	**5.4000e-004**	**0.0994**	**0.0262**	**4.9000e-004**	**0.0267**		**84.4715**	**84.4715**	**3.2300e-003**	**2.8200e-003**	**85.3918**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.0874	10.1601	10.9416	0.0243		0.4406	0.4406		0.4054	0.4054	0.0000	2,347.6501	2,347.6501	0.7593		2,366.6321
Total	**1.0874**	**10.1601**	**10.9416**	**0.0243**		**0.4406**	**0.4406**		**0.4054**	**0.4054**	**0.0000**	**2,347.6501**	**2,347.6501**	**0.7593**		**2,366.6321**

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

3.4 Underground Utilities - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	**0.0416**	**0.0292**	**0.3331**	**8.3000e-004**	**0.0989**	**5.4000e-004**	**0.0994**	**0.0262**	**4.9000e-004**	**0.0267**		**84.4715**	**84.4715**	**3.2300e-003**	**2.8200e-003**	**85.3918**

3.5 Paving - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.5017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6046**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.5 Paving - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	0.1168	5.4272	1.0068	0.0188	0.5041	0.0434	0.5475	0.1381	0.0416	0.1796		2,047.3967	2,047.3967	0.0820	0.3246	2,146.1643
Vendor	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
Worker	0.0480	0.0337	0.3843	9.6000e-004	0.1141	6.2000e-004	0.1147	0.0303	5.7000e-004	0.0308		97.4671	97.4671	3.7200e-003	3.2500e-003	98.5290
Total	**0.1648**	**5.4609**	**1.3911**	**0.0197**	**0.6182**	**0.0441**	**0.6622**	**0.1683**	**0.0421**	**0.2104**		**2,144.8637**	**2,144.8637**	**0.0858**	**0.3278**	**2,244.6932**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.5017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6046**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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

3.5 Paving - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	0.1168	5.4272	1.0068	0.0188	0.5041	0.0434	0.5475	0.1381	0.0416	0.1796		2,047.3967	2,047.3967	0.0820	0.3246	2,146.1643
Vendor	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
Worker	0.0480	0.0337	0.3843	9.6000e-004	0.1141	6.2000e-004	0.1147	0.0303	5.7000e-004	0.0308		97.4671	97.4671	3.7200e-003	3.2500e-003	98.5290
Total	**0.1648**	**5.4609**	**1.3911**	**0.0197**	**0.6182**	**0.0441**	**0.6622**	**0.1683**	**0.0421**	**0.2104**		**2,144.8637**	**2,144.8637**	**0.0858**	**0.3278**	**2,244.6932**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.1191	3.2762	0.9590	0.0111	0.3374	0.0298	0.3673	0.0971	0.0285	0.1257		1,184.9289	1,184.9289	0.0309	0.1738	1,237.5031
Worker	0.8164	0.5729	6.5331	0.0163	1.9398	0.0105	1.9503	0.5146	9.7000e-003	0.5242		1,656.9399	1,656.9399	0.0633	0.0553	1,674.9922
Total	**0.9355**	**3.8491**	**7.4921**	**0.0273**	**2.2772**	**0.0404**	**2.3176**	**0.6117**	**0.0382**	**0.6499**		**2,841.8688**	**2,841.8688**	**0.0942**	**0.2291**	**2,912.4953**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.1191	3.2762	0.9590	0.0111	0.3374	0.0298	0.3673	0.0971	0.0285	0.1257		1,184.9289	1,184.9289	0.0309	0.1738	1,237.5031
Worker	0.8164	0.5729	6.5331	0.0163	1.9398	0.0105	1.9503	0.5146	9.7000e-003	0.5242		1,656.9399	1,656.9399	0.0633	0.0553	1,674.9922
Total	**0.9355**	**3.8491**	**7.4921**	**0.0273**	**2.2772**	**0.0404**	**2.3176**	**0.6117**	**0.0382**	**0.6499**		**2,841.8688**	**2,841.8688**	**0.0942**	**0.2291**	**2,912.4953**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0724	2.7869	0.8440	0.0107	0.3374	0.0146	0.3520	0.0971	0.0140	0.1111		1,145.3719	1,145.3719	0.0282	0.1682	1,196.1926
Worker	0.7610	0.5066	6.0526	0.0158	1.9398	0.0100	1.9498	0.5146	9.2100e-003	0.5238		1,614.3493	1,614.3493	0.0574	0.0511	1,631.0159
Total	**0.8334**	**3.2935**	**6.8966**	**0.0265**	**2.2772**	**0.0246**	**2.3018**	**0.6117**	**0.0232**	**0.6349**		**2,759.7212**	**2,759.7212**	**0.0855**	**0.2193**	**2,827.2085**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0724	2.7869	0.8440	0.0107	0.3374	0.0146	0.3520	0.0971	0.0140	0.1111		1,145.3719	1,145.3719	0.0282	0.1682	1,196.1926
Worker	0.7610	0.5066	6.0526	0.0158	1.9398	0.0100	1.9498	0.5146	9.2100e-003	0.5238		1,614.3493	1,614.3493	0.0574	0.0511	1,631.0159
Total	**0.8334**	**3.2935**	**6.8966**	**0.0265**	**2.2772**	**0.0246**	**2.3018**	**0.6117**	**0.0232**	**0.6349**		**2,759.7212**	**2,759.7212**	**0.0855**	**0.2193**	**2,827.2085**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0692	2.7324	0.8180	0.0105	0.3374	0.0144	0.3518	0.0971	0.0138	0.1109		1,123.7010	1,123.7010	0.0274	0.1654	1,173.6596
Worker	0.7123	0.4510	5.6452	0.0153	1.9398	9.5200e-003	1.9493	0.5146	8.7700e-003	0.5233		1,574.1587	1,574.1587	0.0521	0.0475	1,589.6228
Total	**0.7815**	**3.1834**	**6.4632**	**0.0257**	**2.2771**	**0.0239**	**2.3011**	**0.6116**	**0.0226**	**0.6342**		**2,697.8597**	**2,697.8597**	**0.0795**	**0.2129**	**2,763.2824**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0692	2.7324	0.8180	0.0105	0.3374	0.0144	0.3518	0.0971	0.0138	0.1109		1,123.7010	1,123.7010	0.0274	0.1654	1,173.6596
Worker	0.7123	0.4510	5.6452	0.0153	1.9398	9.5200e-003	1.9493	0.5146	8.7700e-003	0.5233		1,574.1587	1,574.1587	0.0521	0.0475	1,589.6228
Total	**0.7815**	**3.1834**	**6.4632**	**0.0257**	**2.2771**	**0.0239**	**2.3011**	**0.6116**	**0.0226**	**0.6342**		**2,697.8597**	**2,697.8597**	**0.0795**	**0.2129**	**2,763.2824**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**51.0271**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1522	0.1013	1.2105	3.1500e-003	0.3880	2.0000e-003	0.3900	0.1029	1.8400e-003	0.1048		322.8699	322.8699	0.0115	0.0102	326.2032
Total	**0.1522**	**0.1013**	**1.2105**	**3.1500e-003**	**0.3880**	**2.0000e-003**	**0.3900**	**0.1029**	**1.8400e-003**	**0.1048**		**322.8699**	**322.8699**	**0.0115**	**0.0102**	**326.2032**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**51.0271**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1522	0.1013	1.2105	3.1500e-003	0.3880	2.0000e-003	0.3900	0.1029	1.8400e-003	0.1048		322.8699	322.8699	0.0115	0.0102	326.2032
Total	**0.1522**	**0.1013**	**1.2105**	**3.1500e-003**	**0.3880**	**2.0000e-003**	**0.3900**	**0.1029**	**1.8400e-003**	**0.1048**		**322.8699**	**322.8699**	**0.0115**	**0.0102**	**326.2032**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**51.0162**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Folsom Corporate Center Apartments - Sacramento County, Winter

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

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1425	0.0902	1.1290	3.0500e-003	0.3880	1.9000e-003	0.3899	0.1029	1.7500e-003	0.1047		314.8317	314.8317	0.0104	9.5000e-003	317.9246
Total	**0.1425**	**0.0902**	**1.1290**	**3.0500e-003**	**0.3880**	**1.9000e-003**	**0.3899**	**0.1029**	**1.7500e-003**	**0.1047**		**314.8317**	**314.8317**	**0.0104**	**9.5000e-003**	**317.9246**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**51.0162**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1425	0.0902	1.1290	3.0500e-003	0.3880	1.9000e-003	0.3899	0.1029	1.7500e-003	0.1047		314.8317	314.8317	0.0104	9.5000e-003	317.9246
Total	**0.1425**	**0.0902**	**1.1290**	**3.0500e-003**	**0.3880**	**1.9000e-003**	**0.3899**	**0.1029**	**1.7500e-003**	**0.1047**		**314.8317**	**314.8317**	**0.0104**	**9.5000e-003**	**317.9246**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Folsom Corporate Center Apartments - Sacramento County, Winter

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	lb/day										lb/day					
Mitigated	3.6515	5.3829	38.4617	0.0767	8.6505	0.0612	8.7117	2.3060	0.0572	2.3632		8,013.4745	8,013.4745	0.5619	0.4053	8,148.3055
Unmitigated	3.6515	5.3829	38.4617	0.0767	8.6505	0.0612	8.7117	2.3060	0.0572	2.3632		8,013.4745	8,013.4745	0.5619	0.4053	8,148.3055

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,376.32	1,376.32	1376.32	4,103,030	4,103,030
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,376.32	1,376.32	1,376.32	4,103,030	4,103,030

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Low Rise	8.19	5.00	6.50	100.00	0.00	0.00	100	0	0
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207
General Office Building	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

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

Parking Lot	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	lb/day										lb/day					
NaturalGas Mitigated	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
NaturalGas Unmitigated	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572

Folsom Corporate Center Apartments - Sacramento County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8079.62	0.0871	0.7446	0.3169	4.7500e-003		0.0602	0.0602		0.0602	0.0602		950.5436	950.5436	0.0182	0.0174	956.1922
General Office Building	352.06	3.8000e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003		41.4189	41.4189	7.9000e-004	7.6000e-004	41.6650
Parking Lot	0	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
Total		**0.0909**	**0.7791**	**0.3458**	**4.9600e-003**		**0.0628**	**0.0628**		**0.0628**	**0.0628**		**991.9625**	**991.9625**	**0.0190**	**0.0182**	**997.8572**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8.07962	0.0871	0.7446	0.3169	4.7500e-003		0.0602	0.0602		0.0602	0.0602		950.5436	950.5436	0.0182	0.0174	956.1922
General Office Building	0.35206	3.8000e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003		41.4189	41.4189	7.9000e-004	7.6000e-004	41.6650
Parking Lot	0	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
Total		**0.0909**	**0.7791**	**0.3458**	**4.9600e-003**		**0.0628**	**0.0628**		**0.0628**	**0.0628**		**991.9625**	**991.9625**	**0.0190**	**0.0182**	**997.8572**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Folsom Corporate Center Apartments - Sacramento County, Winter

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	lb/day										lb/day					
Mitigated	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Unmitigated	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247

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	lb/day										lb/day					
Architectural Coating	0.9053					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6851					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	0.6278	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158		37.6224	37.6224	0.0361		38.5247
Total	**7.2182**	**0.2404**	**20.8710**	**1.1000e-003**		**0.1158**	**0.1158**		**0.1158**	**0.1158**	**0.0000**	**37.6224**	**37.6224**	**0.0361**	**0.0000**	**38.5247**

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	lb/day										lb/day					
Architectural Coating	0.9053					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6851					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	0.6278	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158		37.6224	37.6224	0.0361		38.5247
Total	**7.2182**	**0.2404**	**20.8710**	**1.1000e-003**		**0.1158**	**0.1158**		**0.1158**	**0.1158**	**0.0000**	**37.6224**	**37.6224**	**0.0361**	**0.0000**	**38.5247**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Folsom Corporate Center Apartments - Sacramento County, Summer

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

Folsom Corporate Center Apartments

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	9.90	1000sqft	0.23	9,900.00	0
Parking Lot	166.70	1000sqft	3.83	166,700.00	0
Apartments Low Rise	253.00	Dwelling Unit	8.04	253,000.00	676

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2025
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Run R2 - updated construction schedule.

Land Use - Population per City of Folsom General Plan Housing Element demographics data.
General Office Building = Clubhouse.

Construction Phase - No demolition.
Architectural coating to occur during last 3 months of building construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highay Truck = water truck.

Off-road Equipment -

Off-road Equipment - Off-Highay Truck = water truck.

Folsom Corporate Center Apartments - Sacramento County, Summer

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

Off-road Equipment - Equipemnt for excavation/installation of underground utilities.
Off-Highay Truck = water truck.

Trips and VMT - 578 haul trips during paving for import of asphalt/aggregate.

Vehicle Trips - Trip rate per TIS (T. Kear 2021).
Trip distance and purposes adusted to result in 17 VMT/capita per day based on population of 663 and VMT anaysis in the TIS (T. Kear 2021).

Construction Off-road Equipment Mitigation - Fugitive dust mitigation per SMAQMD BACT/BMPs.

Area Mitigation - No wood hearths.

Energy Mitigation - On-site solar electricity generation per 2019 Title 24.

Water Mitigation - 20% water reduction per 2019 CALGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults.

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	300.00	369.00
tblConstructionPhase	NumDays	20.00	65.00
tblLandUse	LotAcreage	15.81	8.04
tblTripsAndVMT	HaulingTripNumber	0.00	578.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	41.00	0.00
tblVehicleTrips	HS_TTP	12.50	0.00
tblVehicleTrips	HW_TL	10.00	8.19
tblVehicleTrips	HW_TTP	46.50	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	5.44
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	6.28	5.44
tblVehicleTrips	SU_TR	0.70	0.00

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

tblVehicleTrips	WD_TR	7.32	5.44
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

Folsom Corporate Center Apartments - Sacramento County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	3.9724	40.8924	31.4011	0.0703	19.8092	1.7088	21.4955	10.1428	1.5721	11.6943	0.0000	6,818.9761	6,818.9761	2.1560	0.3273	6,874.1710
2023	53.7059	18.7763	27.2017	0.0619	2.6651	0.7970	3.4622	0.7146	0.7541	1.4687	0.0000	6,159.0081	6,159.0081	0.7127	0.2213	6,242.7611
2024	53.5225	17.6455	26.5002	0.0610	2.6651	0.6999	3.3650	0.7146	0.6620	1.3765	0.0000	6,082.7842	6,082.7842	0.7017	0.2147	6,164.3114
Maximum	**53.7059**	**40.8924**	**31.4011**	**0.0703**	**19.8092**	**1.7088**	**21.4955**	**10.1428**	**1.5721**	**11.6943**	**0.0000**	**6,818.9761**	**6,818.9761**	**2.1560**	**0.3273**	**6,874.1710**

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	lb/day										lb/day					
2022	3.9724	40.8924	31.4011	0.0703	8.9978	1.7088	10.6842	4.5865	1.5721	6.1379	0.0000	6,818.9761	6,818.9761	2.1560	0.3273	6,874.1710
2023	53.7059	18.7763	27.2017	0.0619	2.6651	0.7970	3.4622	0.7146	0.7541	1.4687	0.0000	6,159.0081	6,159.0081	0.7127	0.2213	6,242.7611
2024	53.5225	17.6455	26.5002	0.0610	2.6651	0.6999	3.3650	0.7146	0.6620	1.3765	0.0000	6,082.7842	6,082.7842	0.7017	0.2147	6,164.3114
Maximum	**53.7059**	**40.8924**	**31.4011**	**0.0703**	**8.9978**	**1.7088**	**10.6842**	**4.5865**	**1.5721**	**6.1379**	**0.0000**	**6,818.9761**	**6,818.9761**	**2.1560**	**0.3273**	**6,874.1710**

Folsom Corporate Center Apartments - Sacramento County, Summer

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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.01**	**0.00**	**38.17**	**48.02**	**0.00**	**38.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

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	lb/day										lb/day					
Area	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Energy	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
Mobile	4.5849	4.6511	39.3286	0.0839	8.6505	0.0612	8.7116	2.3060	0.0571	2.3632		8,767.4695	8,767.4695	0.5045	0.3718	8,890.8825
Total	**11.8940**	**5.6706**	**60.5455**	**0.0900**	**8.6505**	**0.2397**	**8.8902**	**2.3060**	**0.2357**	**2.5417**	**0.0000**	**9,797.0543**	**9,797.0543**	**0.5596**	**0.3900**	**9,927.2644**

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	lb/day										lb/day					
Area	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Energy	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
Mobile	4.5849	4.6511	39.3286	0.0839	8.6505	0.0612	8.7116	2.3060	0.0571	2.3632		8,767.4695	8,767.4695	0.5045	0.3718	8,890.8825
Total	**11.8940**	**5.6706**	**60.5455**	**0.0900**	**8.6505**	**0.2397**	**8.8902**	**2.3060**	**0.2357**	**2.5417**	**0.0000**	**9,797.0543**	**9,797.0543**	**0.5596**	**0.3900**	**9,927.2644**

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	N20	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	5/25/2022	5/31/2022	5	5	
2	Grading	Grading	6/1/2022	7/31/2022	5	43	
3	Underground Utilities	Trenching	8/1/2022	8/31/2022	5	23	
4	Paving	Paving	9/1/2022	9/28/2022	5	20	
5	Building Construction	Building Construction	10/1/2022	2/29/2024	5	369	
6	Architectural Coating	Architectural Coating	12/1/2023	2/29/2024	5	65	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 129

Acres of Paving: 3.83

Residential Indoor: 512,325; Residential Outdoor: 170,775; Non-Residential Indoor: 14,850; Non-Residential Outdoor: 4,950; Striped Parking Area: 10,002 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

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

Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Off-Highway Trucks	1	4.00	402	0.38
Underground Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	255.00	56.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	578.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.4344	35.0904	21.3771	0.0447		1.6856	1.6856		1.5507	1.5507		4,325.5545	4,325.5545	1.3990		4,360.5288
Total	**3.4344**	**35.0904**	**21.3771**	**0.0447**	**19.6570**	**1.6856**	**21.3426**	**10.1025**	**1.5507**	**11.6532**		**4,325.5545**	**4,325.5545**	**1.3990**		**4,360.5288**

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.4344	35.0904	21.3771	0.0447		1.6856	1.6856		1.5507	1.5507	0.0000	4,325.5545	4,325.5545	1.3990		4,360.5288
Total	**3.4344**	**35.0904**	**21.3771**	**0.0447**	**8.8457**	**1.6856**	**10.5312**	**4.5461**	**1.5507**	**6.0968**	**0.0000**	**4,325.5545**	**4,325.5545**	**1.3990**		**4,360.5288**

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

3.3 Grading - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.8890	40.8503	30.7209	0.0687		1.7079	1.7079		1.5712	1.5712		6,650.9032	6,650.9032	2.1510		6,704.6791
Total	**3.8890**	**40.8503**	**30.7209**	**0.0687**	**9.2036**	**1.7079**	**10.9115**	**3.6538**	**1.5712**	**5.2250**		**6,650.9032**	**6,650.9032**	**2.1510**		**6,704.6791**

Folsom Corporate Center Apartments - Sacramento County, Summer

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0833	0.0421	0.6803	1.6500e-003	0.1750	9.5000e-004	0.1759	0.0464	8.7000e-004	0.0473		168.0729	168.0729	4.9900e-003	4.3400e-003	169.4919
Total	**0.0833**	**0.0421**	**0.6803**	**1.6500e-003**	**0.1750**	**9.5000e-004**	**0.1759**	**0.0464**	**8.7000e-004**	**0.0473**		**168.0729**	**168.0729**	**4.9900e-003**	**4.3400e-003**	**169.4919**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.8890	40.8503	30.7209	0.0687		1.7079	1.7079		1.5712	1.5712	0.0000	6,650.9032	6,650.9032	2.1510		6,704.6791
Total	**3.8890**	**40.8503**	**30.7209**	**0.0687**	**4.1416**	**1.7079**	**5.8495**	**1.6442**	**1.5712**	**3.2154**	**0.0000**	**6,650.9032**	**6,650.9032**	**2.1510**		**6,704.6791**

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0833	0.0421	0.6803	1.6500e-003	0.1750	9.5000e-004	0.1759	0.0464	8.7000e-004	0.0473		168.0729	168.0729	4.9900e-003	4.3400e-003	169.4919
Total	**0.0833**	**0.0421**	**0.6803**	**1.6500e-003**	**0.1750**	**9.5000e-004**	**0.1759**	**0.0464**	**8.7000e-004**	**0.0473**		**168.0729**	**168.0729**	**4.9900e-003**	**4.3400e-003**	**169.4919**

3.4 Underground Utilities - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.0874	10.1601	10.9416	0.0243		0.4406	0.4406		0.4054	0.4054		2,347.6501	2,347.6501	0.7593		2,366.6321
Total	**1.0874**	**10.1601**	**10.9416**	**0.0243**		**0.4406**	**0.4406**		**0.4054**	**0.4054**		**2,347.6501**	**2,347.6501**	**0.7593**		**2,366.6321**

Folsom Corporate Center Apartments - Sacramento County, Summer

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

3.4 Underground Utilities - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	**0.0471**	**0.0238**	**0.3845**	**9.3000e-004**	**0.0989**	**5.4000e-004**	**0.0994**	**0.0262**	**4.9000e-004**	**0.0267**		**94.9977**	**94.9977**	**2.8200e-003**	**2.4500e-003**	**95.7998**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.0874	10.1601	10.9416	0.0243		0.4406	0.4406		0.4054	0.4054	0.0000	2,347.6501	2,347.6501	0.7593		2,366.6321
Total	**1.0874**	**10.1601**	**10.9416**	**0.0243**		**0.4406**	**0.4406**		**0.4054**	**0.4054**	**0.0000**	**2,347.6501**	**2,347.6501**	**0.7593**		**2,366.6321**

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

3.4 Underground Utilities - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	**0.0471**	**0.0238**	**0.3845**	**9.3000e-004**	**0.0989**	**5.4000e-004**	**0.0994**	**0.0262**	**4.9000e-004**	**0.0267**		**94.9977**	**94.9977**	**2.8200e-003**	**2.4500e-003**	**95.7998**

3.5 Paving - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.5017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6046**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Folsom Corporate Center Apartments - Sacramento County, Summer

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

3.5 Paving - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	0.1201	5.0241	0.9865	0.0188	0.5041	0.0433	0.5474	0.1381	0.0414	0.1795		2,047.1018	2,047.1018	0.0822	0.3245	2,145.8545
Vendor	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
Worker	0.0544	0.0275	0.4436	1.0800e-003	0.1141	6.2000e-004	0.1147	0.0303	5.7000e-004	0.0308		109.6128	109.6128	3.2500e-003	2.8300e-003	110.5382
Total	**0.1744**	**5.0515**	**1.4301**	**0.0199**	**0.6182**	**0.0439**	**0.6621**	**0.1683**	**0.0420**	**0.2103**		**2,156.7145**	**2,156.7145**	**0.0855**	**0.3273**	**2,256.3927**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.5017					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6046**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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

3.5 Paving - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	0.1201	5.0241	0.9865	0.0188	0.5041	0.0433	0.5474	0.1381	0.0414	0.1795		2,047.1018	2,047.1018	0.0822	0.3245	2,145.8545
Vendor	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
Worker	0.0544	0.0275	0.4436	1.0800e-003	0.1141	6.2000e-004	0.1147	0.0303	5.7000e-004	0.0308		109.6128	109.6128	3.2500e-003	2.8300e-003	110.5382
Total	**0.1744**	**5.0515**	**1.4301**	**0.0199**	**0.6182**	**0.0439**	**0.6621**	**0.1683**	**0.0420**	**0.2103**		**2,156.7145**	**2,156.7145**	**0.0855**	**0.3273**	**2,256.3927**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.1212	3.0504	0.9184	0.0111	0.3374	0.0296	0.3671	0.0971	0.0283	0.1255		1,185.0672	1,185.0672	0.0310	0.1735	1,237.5581
Worker	0.9240	0.4666	7.5419	0.0183	1.9398	0.0105	1.9503	0.5146	9.7000e-003	0.5242		1,863.4168	1,863.4168	0.0553	0.0482	1,879.1495
Total	**1.0451**	**3.5170**	**8.4603**	**0.0294**	**2.2772**	**0.0402**	**2.3174**	**0.6117**	**0.0380**	**0.6497**		**3,048.4840**	**3,048.4840**	**0.0863**	**0.2217**	**3,116.7075**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.1212	3.0504	0.9184	0.0111	0.3374	0.0296	0.3671	0.0971	0.0283	0.1255		1,185.0672	1,185.0672	0.0310	0.1735	1,237.5581
Worker	0.9240	0.4666	7.5419	0.0183	1.9398	0.0105	1.9503	0.5146	9.7000e-003	0.5242		1,863.4168	1,863.4168	0.0553	0.0482	1,879.1495
Total	**1.0451**	**3.5170**	**8.4603**	**0.0294**	**2.2772**	**0.0402**	**2.3174**	**0.6117**	**0.0380**	**0.6497**		**3,048.4840**	**3,048.4840**	**0.0863**	**0.2217**	**3,116.7075**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Folsom Corporate Center Apartments - Sacramento County, Summer

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

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0749	2.5930	0.8072	0.0107	0.3374	0.0145	0.3519	0.0971	0.0139	0.1110		1,144.5516	1,144.5516	0.0283	0.1678	1,195.2557
Worker	0.8593	0.4129	6.9495	0.0177	1.9398	0.0100	1.9498	0.5146	9.2100e-003	0.5238		1,814.8321	1,814.8321	0.0498	0.0446	1,829.3586
Total	**0.9342**	**3.0059**	**7.7567**	**0.0284**	**2.2772**	**0.0245**	**2.3016**	**0.6117**	**0.0231**	**0.6347**		**2,959.3837**	**2,959.3837**	**0.0781**	**0.2124**	**3,024.6143**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Folsom Corporate Center Apartments - Sacramento County, Summer

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

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0749	2.5930	0.8072	0.0107	0.3374	0.0145	0.3519	0.0971	0.0139	0.1110		1,144.5516	1,144.5516	0.0283	0.1678	1,195.2557
Worker	0.8593	0.4129	6.9495	0.0177	1.9398	0.0100	1.9498	0.5146	9.2100e-003	0.5238		1,814.8321	1,814.8321	0.0498	0.0446	1,829.3586
Total	**0.9342**	**3.0059**	**7.7567**	**0.0284**	**2.2772**	**0.0245**	**2.3016**	**0.6117**	**0.0231**	**0.6347**		**2,959.3837**	**2,959.3837**	**0.0781**	**0.2124**	**3,024.6143**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0717	2.5415	0.7819	0.0105	0.3374	0.0143	0.3516	0.0971	0.0137	0.1107		1,122.7537	1,122.7537	0.0275	0.1650	1,172.6001
Worker	0.8026	0.3678	6.4511	0.0172	1.9398	9.5200e-003	1.9493	0.5146	8.7700e-003	0.5233		1,769.0696	1,769.0696	0.0450	0.0415	1,782.5495
Total	**0.8743**	**2.9093**	**7.2330**	**0.0276**	**2.2771**	**0.0238**	**2.3009**	**0.6116**	**0.0224**	**0.6341**		**2,891.8234**	**2,891.8234**	**0.0725**	**0.2064**	**2,955.1496**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	0.0717	2.5415	0.7819	0.0105	0.3374	0.0143	0.3516	0.0971	0.0137	0.1107		1,122.7537	1,122.7537	0.0275	0.1650	1,172.6001
Worker	0.8026	0.3678	6.4511	0.0172	1.9398	9.5200e-003	1.9493	0.5146	8.7700e-003	0.5233		1,769.0696	1,769.0696	0.0450	0.0415	1,782.5495
Total	**0.8743**	**2.9093**	**7.2330**	**0.0276**	**2.2771**	**0.0238**	**2.3009**	**0.6116**	**0.0224**	**0.6341**		**2,891.8234**	**2,891.8234**	**0.0725**	**0.2064**	**2,955.1496**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**51.0271**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1719	0.0826	1.3899	3.5500e-003	0.3880	2.0000e-003	0.3900	0.1029	1.8400e-003	0.1048		362.9664	362.9664	9.9600e-003	8.9100e-003	365.8717
Total	**0.1719**	**0.0826**	**1.3899**	**3.5500e-003**	**0.3880**	**2.0000e-003**	**0.3900**	**0.1029**	**1.8400e-003**	**0.1048**		**362.9664**	**362.9664**	**9.9600e-003**	**8.9100e-003**	**365.8717**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**51.0271**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1719	0.0826	1.3899	3.5500e-003	0.3880	2.0000e-003	0.3900	0.1029	1.8400e-003	0.1048		362.9664	362.9664	9.9600e-003	8.9100e-003	365.8717
Total	**0.1719**	**0.0826**	**1.3899**	**3.5500e-003**	**0.3880**	**2.0000e-003**	**0.3900**	**0.1029**	**1.8400e-003**	**0.1048**		**362.9664**	**362.9664**	**9.9600e-003**	**8.9100e-003**	**365.8717**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**51.0162**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1605	0.0736	1.2902	3.4300e-003	0.3880	1.9000e-003	0.3899	0.1029	1.7500e-003	0.1047		353.8139	353.8139	9.0000e-003	8.2900e-003	356.5099
Total	**0.1605**	**0.0736**	**1.2902**	**3.4300e-003**	**0.3880**	**1.9000e-003**	**0.3899**	**0.1029**	**1.7500e-003**	**0.1047**		**353.8139**	**353.8139**	**9.0000e-003**	**8.2900e-003**	**356.5099**

Mitigated Construction On-Site

	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	lb/day										lb/day					
Archit. Coating	50.8354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**51.0162**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	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	lb/day										lb/day					
Hauling	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
Vendor	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
Worker	0.1605	0.0736	1.2902	3.4300e-003	0.3880	1.9000e-003	0.3899	0.1029	1.7500e-003	0.1047		353.8139	353.8139	9.0000e-003	8.2900e-003	356.5099
Total	**0.1605**	**0.0736**	**1.2902**	**3.4300e-003**	**0.3880**	**1.9000e-003**	**0.3899**	**0.1029**	**1.7500e-003**	**0.1047**		**353.8139**	**353.8139**	**9.0000e-003**	**8.2900e-003**	**356.5099**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Folsom Corporate Center Apartments - Sacramento County, Summer

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	lb/day										lb/day					
Mitigated	4.5849	4.6511	39.3286	0.0839	8.6505	0.0612	8.7116	2.3060	0.0571	2.3632		8,767.4695	8,767.4695	0.5045	0.3718	8,890.8825
Unmitigated	4.5849	4.6511	39.3286	0.0839	8.6505	0.0612	8.7116	2.3060	0.0571	2.3632		8,767.4695	8,767.4695	0.5045	0.3718	8,890.8825

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,376.32	1,376.32	1376.32	4,103,030	4,103,030
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,376.32	1,376.32	1,376.32	4,103,030	4,103,030

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Low Rise	8.19	5.00	6.50	100.00	0.00	0.00	100	0	0
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207
General Office Building	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

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

Parking Lot	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	lb/day										lb/day					
NaturalGas Mitigated	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572
NaturalGas Unmitigated	0.0909	0.7791	0.3458	4.9600e-003		0.0628	0.0628		0.0628	0.0628		991.9625	991.9625	0.0190	0.0182	997.8572

Folsom Corporate Center Apartments - Sacramento County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8079.62	0.0871	0.7446	0.3169	4.7500e-003		0.0602	0.0602		0.0602	0.0602		950.5436	950.5436	0.0182	0.0174	956.1922
General Office Building	352.06	3.8000e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003		41.4189	41.4189	7.9000e-004	7.6000e-004	41.6650
Parking Lot	0	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
Total		**0.0909**	**0.7791**	**0.3458**	**4.9600e-003**		**0.0628**	**0.0628**		**0.0628**	**0.0628**		**991.9625**	**991.9625**	**0.0190**	**0.0182**	**997.8572**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8.07962	0.0871	0.7446	0.3169	4.7500e-003		0.0602	0.0602		0.0602	0.0602		950.5436	950.5436	0.0182	0.0174	956.1922
General Office Building	0.35206	3.8000e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003		41.4189	41.4189	7.9000e-004	7.6000e-004	41.6650
Parking Lot	0	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
Total		**0.0909**	**0.7791**	**0.3458**	**4.9600e-003**		**0.0628**	**0.0628**		**0.0628**	**0.0628**		**991.9625**	**991.9625**	**0.0190**	**0.0182**	**997.8572**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Folsom Corporate Center Apartments - Sacramento County, Summer

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	lb/day										lb/day					
Mitigated	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247
Unmitigated	7.2182	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158	0.0000	37.6224	37.6224	0.0361	0.0000	38.5247

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	lb/day										lb/day					
Architectural Coating	0.9053					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6851					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	0.6278	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158		37.6224	37.6224	0.0361		38.5247
Total	**7.2182**	**0.2404**	**20.8710**	**1.1000e-003**		**0.1158**	**0.1158**		**0.1158**	**0.1158**	**0.0000**	**37.6224**	**37.6224**	**0.0361**	**0.0000**	**38.5247**

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	lb/day										lb/day					
Architectural Coating	0.9053					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6851					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	0.6278	0.2404	20.8710	1.1000e-003		0.1158	0.1158		0.1158	0.1158		37.6224	37.6224	0.0361		38.5247
Total	**7.2182**	**0.2404**	**20.8710**	**1.1000e-003**		**0.1158**	**0.1158**		**0.1158**	**0.1158**	**0.0000**	**37.6224**	**37.6224**	**0.0361**	**0.0000**	**38.5247**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

FCC Apartments Existing Zoning - Sacramento County, Annual

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

FCC Apartments Existing Zoning

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	623.60	1000sqft	11.92	623,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - The model is for calcualting operational GHGs associated with max buildout under existing zoning.

Land Use - Lot 1 existing zoning = M-L
Lot 6 existing zoning = BP
Commercial and professional offices permitted in both zoning districts.

Construction Phase - Operational emissions only.

Off-road Equipment - Operational emissions only.

Grading -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	14.32	11.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

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

2.0 Emissions Summary

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	N20	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**

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

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

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	2.7252	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165
Energy	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	2,277.7032	2,277.7032	0.1706	0.0293	2,290.7028
Mobile	2.0524	2.4738	17.4640	0.0344	3.5193	0.0280	3.5473	0.9409	0.0261	0.9670	0.0000	3,238.3911	3,238.3911	0.2396	0.1687	3,294.6524
Waste						0.0000	0.0000		0.0000	0.0000	117.7246	0.0000	117.7246	6.9573	0.0000	291.6577
Water						0.0000	0.0000		0.0000	0.0000	39.2135	128.2784	167.4920	0.1468	0.0867	197.0014
Total	**4.8321**	**2.9691**	**17.8879**	**0.0374**	**3.5193**	**0.0657**	**3.5850**	**0.9409**	**0.0638**	**1.0047**	**156.9381**	**5,644.3882**	**5,801.3263**	**7.5144**	**0.2847**	**6,074.0308**

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	2.7252	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165
Energy	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	2,277.7032	2,277.7032	0.1706	0.0293	2,290.7028
Mobile	2.0524	2.4738	17.4640	0.0344	3.5193	0.0280	3.5473	0.9409	0.0261	0.9670	0.0000	3,238.3911	3,238.3911	0.2396	0.1687	3,294.6524
Waste						0.0000	0.0000		0.0000	0.0000	117.7246	0.0000	117.7246	6.9573	0.0000	291.6577
Water						0.0000	0.0000		0.0000	0.0000	39.2135	128.2784	167.4920	0.1468	0.0867	197.0014
Total	**4.8321**	**2.9691**	**17.8879**	**0.0374**	**3.5193**	**0.0657**	**3.5850**	**0.9409**	**0.0638**	**1.0047**	**156.9381**	**5,644.3882**	**5,801.3263**	**7.5144**	**0.2847**	**6,074.0308**

	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	N20	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	9/1/2022	9/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

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	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	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	0	0.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**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 Construction Off-Site

	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					
Hauling	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
Vendor	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
Worker	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
Total	**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**

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**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 Off-Site

	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					
Hauling	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
Vendor	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
Worker	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
Total	**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**

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	2.0524	2.4738	17.4640	0.0344	3.5193	0.0280	3.5473	0.9409	0.0261	0.9670	0.0000	3,238.3911	3,238.3911	0.2396	0.1687	3,294.6524
Unmitigated	2.0524	2.4738	17.4640	0.0344	3.5193	0.0280	3.5473	0.9409	0.0261	0.9670	0.0000	3,238.3911	3,238.3911	0.2396	0.1687	3,294.6524

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	6,073.86	1,378.16	436.52	9,494,757	9,494,757
Total	6,073.86	1,378.16	436.52	9,494,757	9,494,757

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,738.6049	1,738.6049	0.1603	0.0194	1,748.4009
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,738.6049	1,738.6049	0.1603	0.0194	1,748.4009
NaturalGas Mitigated	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0983	539.0983	0.0103	9.8800e-003	542.3019
NaturalGas Unmitigated	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0983	539.0983	0.0103	9.8800e-003	542.3019

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.01023e+007	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0983	539.0983	0.0103	9.8800e-003	542.3019
Total		**0.0545**	**0.4952**	**0.4160**	**2.9700e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**539.0983**	**539.0983**	**0.0103**	**9.8800e-003**	**542.3019**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.01023e+007	0.0545	0.4952	0.4160	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0983	539.0983	0.0103	9.8800e-003	542.3019
Total		**0.0545**	**0.4952**	**0.4160**	**2.9700e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**539.0983**	**539.0983**	**0.0103**	**9.8800e-003**	**542.3019**

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			
General Office Building	1.07072e+007	1,738.6049	0.1603	0.0194	1,748.4009
Total		**1,738.6049**	**0.1603**	**0.0194**	**1,748.4009**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.07072e+007	1,738.6049	0.1603	0.0194	1,748.4009
Total		**1,738.6049**	**0.1603**	**0.0194**	**1,748.4009**

6.0 Area Detail

6.1 Mitigation Measures Area

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	2.7252	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165
Unmitigated	2.7252	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165

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	0.2890					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.3000e-004	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165
Total	**2.7252**	**7.0000e-005**	**7.9500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

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	0.2890					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.3000e-004	7.0000e-005	7.9500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0155	0.0155	4.0000e-005	0.0000	0.0165
Total	**2.7252**	**7.0000e-005**	**7.9500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	167.4920	0.1468	0.0867	197.0014
Unmitigated	167.4920	0.1468	0.0867	197.0014

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	110.835 / 67.931	167.4920	0.1468	0.0867	197.0014
Total		**167.4920**	**0.1468**	**0.0867**	**197.0014**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	110.835 / 67.931	167.4920	0.1468	0.0867	197.0014
Total		**167.4920**	**0.1468**	**0.0867**	**197.0014**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	117.7246	6.9573	0.0000	291.6577
Unmitigated	117.7246	6.9573	0.0000	291.6577

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	579.95	117.7246	6.9573	0.0000	291.6577
Total		**117.7246**	**6.9573**	**0.0000**	**291.6577**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	579.95	117.7246	6.9573	0.0000	291.6577
Total		**117.7246**	**6.9573**	**0.0000**	**291.6577**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

FCC Apartments Proposed Zoning - Sacramento County, Annual

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

FCC Apartments Proposed Zoning

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	304.00	Dwelling Unit	11.92	304,000.00	812

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - The model is for calcualting operational GHGs associated with max buildout under proposed zoning.

Land Use - Proposed zoning both lots: R-4

Construction Phase - Operational emissions only.

Off-road Equipment - Operational emissions only.

Grading -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	19.00	11.92
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

2.0 Emissions Summary

FCC Apartments Proposed Zoning - Sacramento County, Annual

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	N20	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)

FCC Apartments Proposed Zoning - Sacramento County, Annual

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

		Highest		

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	1.4717	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439
Energy	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	360.5432	360.5432	0.0216	5.1700e-003	362.6240
Mobile	1.0800	1.4053	9.9014	0.0205	2.1075	0.0164	2.1238	0.5635	0.0153	0.5787	0.0000	1,925.3360	1,925.3360	0.1318	0.0955	1,957.0994
Waste						0.0000	0.0000		0.0000	0.0000	28.3863	0.0000	28.3863	1.6776	0.0000	70.3258
Water						0.0000	0.0000		0.0000	0.0000	7.0077	23.1215	30.1291	0.0263	0.0155	35.4038
Total	**2.5679**	**1.5797**	**13.0939**	**0.0215**	**2.1075**	**0.0449**	**2.1524**	**0.5635**	**0.0438**	**0.6073**	**35.3940**	**2,314.1218**	**2,349.5157**	**1.8621**	**0.1162**	**2,430.6968**

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	1.4717	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439
Energy	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	360.5432	360.5432	0.0216	5.1700e-003	362.6240
Mobile	1.0800	1.4053	9.9014	0.0205	2.1075	0.0164	2.1238	0.5635	0.0153	0.5787	0.0000	1,925.3360	1,925.3360	0.1318	0.0955	1,957.0994
Waste						0.0000	0.0000		0.0000	0.0000	28.3863	0.0000	28.3863	1.6776	0.0000	70.3258
Water						0.0000	0.0000		0.0000	0.0000	7.0077	23.1215	30.1291	0.0263	0.0155	35.4038
Total	**2.5679**	**1.5797**	**13.0939**	**0.0215**	**2.1075**	**0.0449**	**2.1524**	**0.5635**	**0.0438**	**0.6073**	**35.3940**	**2,314.1218**	**2,349.5157**	**1.8621**	**0.1162**	**2,430.6968**

	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	N20	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	9/1/2022	9/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

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	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	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	0	0.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**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 Construction Off-Site

	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					
Hauling	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
Vendor	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
Worker	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
Total	**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**

FCC Apartments Proposed Zoning - Sacramento County, Annual

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**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 Off-Site

	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					
Hauling	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
Vendor	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
Worker	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
Total	**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**

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	1.0800	1.4053	9.9014	0.0205	2.1075	0.0164	2.1238	0.5635	0.0153	0.5787	0.0000	1,925.3360	1,925.3360	0.1318	0.0955	1,957.0994
Unmitigated	1.0800	1.4053	9.9014	0.0205	2.1075	0.0164	2.1238	0.5635	0.0153	0.5787	0.0000	1,925.3360	1,925.3360	0.1318	0.0955	1,957.0994

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	2,225.28	2,474.56	1909.12	5,685,794	5,685,794
Total	2,225.28	2,474.56	1,909.12	5,685,794	5,685,794

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	200.4620	200.4620	0.0185	2.2400e-003	201.5915
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	200.4620	200.4620	0.0185	2.2400e-003	201.5915
NaturalGas Mitigated	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0812	160.0812	3.0700e-003	2.9300e-003	161.0325
NaturalGas Unmitigated	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0812	160.0812	3.0700e-003	2.9300e-003	161.0325

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.99981e+006	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0812	160.0812	3.0700e-003	2.9300e-003	161.0325
Total		**0.0162**	**0.1382**	**0.0588**	**8.8000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**	**0.0000**	**160.0812**	**160.0812**	**3.0700e-003**	**2.9300e-003**	**161.0325**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.99981e+006	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0812	160.0812	3.0700e-003	2.9300e-003	161.0325
Total		**0.0162**	**0.1382**	**0.0588**	**8.8000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**	**0.0000**	**160.0812**	**160.0812**	**3.0700e-003**	**2.9300e-003**	**161.0325**

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			
Apartments Low Rise	1.23455e+006	200.4620	0.0185	2.2400e-003	201.5915
Total		**200.4620**	**0.0185**	**2.2400e-003**	**201.5915**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.23455e+006	200.4620	0.0185	2.2400e-003	201.5915
Total		**200.4620**	**0.0185**	**2.2400e-003**	**201.5915**

6.0 Area Detail

6.1 Mitigation Measures Area

FCC Apartments Proposed Zoning - Sacramento County, Annual

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	1.4717	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439
Unmitigated	1.4717	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439

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	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1873					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	0.0942	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439
Total	**1.4717**	**0.0361**	**3.1337**	**1.7000e-004**		**0.0174**	**0.0174**		**0.0174**	**0.0174**	**0.0000**	**5.1211**	**5.1211**	**4.9100e-003**	**0.0000**	**5.2439**

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	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1873					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	0.0942	0.0361	3.1337	1.7000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	5.1211	5.1211	4.9100e-003	0.0000	5.2439
Total	**1.4717**	**0.0361**	**3.1337**	**1.7000e-004**		**0.0174**	**0.0174**		**0.0174**	**0.0174**	**0.0000**	**5.1211**	**5.1211**	**4.9100e-003**	**0.0000**	**5.2439**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	30.1291	0.0263	0.0155	35.4038
Unmitigated	30.1291	0.0263	0.0155	35.4038

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	19.8068 / 12.4869	30.1291	0.0263	0.0155	35.4038
Total		**30.1291**	**0.0263**	**0.0155**	**35.4038**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	19.8068 / 12.4869	30.1291	0.0263	0.0155	35.4038
Total		**30.1291**	**0.0263**	**0.0155**	**35.4038**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.3863	1.6776	0.0000	70.3258
Unmitigated	28.3863	1.6776	0.0000	70.3258

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	139.84	28.3863	1.6776	0.0000	70.3258
Total		**28.3863**	**1.6776**	**0.0000**	**70.3258**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	139.84	28.3863	1.6776	0.0000	70.3258
Total		**28.3863**	**1.6776**	**0.0000**	**70.3258**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Reduction Strategy Consistency Checklist

UPDATED
March 24, 2021

City of Folsom
Community Development Department
50 Natoma Street
Folsom, CA 95630
(916) 461-6202

Introduction

On August 28, 2018, the City adopted its 2035 General Plan, which establishes the framework to guide future growth and development. As part of the General Plan, the City also adopted a Greenhouse Gas Emissions Reduction Strategy (see Appendix A to the General Plan). These serve as the City's Climate Action Plan (CAP). Together they outline the policies and programs that the City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of this Consistency Checklist (Checklist) is to, in conjunction with the 2035 General Plan GHG Reduction Strategy and the General Plan EIR, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

Applicability

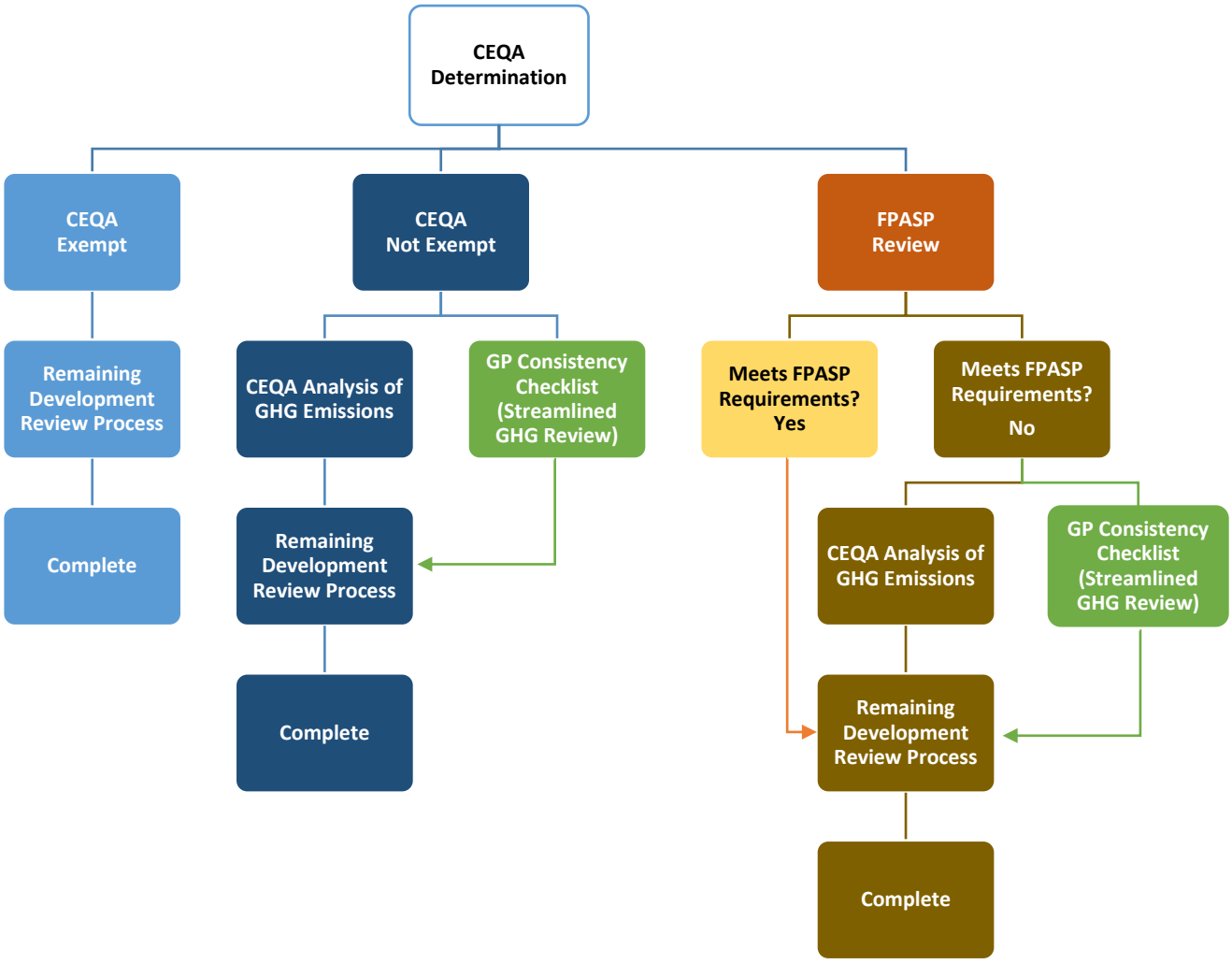
This Checklist contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the General Plan are achieved. Implementation of these measures would ensure that new development is consistent with the General Plan's assumptions for achieving the identified GHG reduction targets.

- As shown in the diagram on the following page, the Checklist is required **only** for projects subject to CEQA review.
    - ***Exception***: *Projects located in the Folsom Plan Area Specific Plan (FPASP) area and consistent with the Specific Plan requirements do not have to complete this checklist but must address the requirements and applicable GHG mitigation measures of the Specific Plan and its environmental impact report (EIR)*.
- If required, the Checklist must be included in the project submittal package. The development application is available on the City's website.
- The requirements in the Checklist must be included in the project's conditions of approval as well as in the mitigation measures in the Climate Change/GHG section of the project-specific CEQA document (i.e., EIR, Mitigated Negative Declaration, etc.).
- The applicant must provide an explanation of how the proposed project will implement these requirements to the satisfaction of the Community Development Department.

Please note that the Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the General Plan or local, State, or federal law.

Streamlining Benefits

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The City's General Plan contains a strategy for the reduction of GHG emissions prepared in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project that is consistent with the General Plan as determined through the use of this Checklist may rely on the General Plan and General Plan EIR for the cumulative impacts analysis of GHG emissions (refer to diagram below). Therefore, a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the General Plan's GHG Reduction Strategy. This would also apply to projects in the FPASP that don't meet the Specific Plan requirements, but do comply with the requirements of the General Plan's GHG Reduction Strategy. However, projects that are not consistent with the Strategy must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the General Plan.



GHG Reduction Strategy Consistency Checklist - Project Application

Application Information			
Project No./Name:	Folsom Corporate Center Apartments Project		
Property Address:	Rowberry Drive/Iron Point Road		
Applicant Name:	FCC 50, LLC		
Contact Phone:		Contact Email:	
Was a consultant used to complete this checklist?		Yes X No ___	
Consultant Name:	Victor Ortiz	Contact Phone:	619.462.1515
Company Name:	HELIX Environmental Planning Inc.	Contact Email:	VictorO@helixepi.com

Project Information	
1. What is the size of the project? (acres)	11.92 acres
2. Identify all applicable proposed land uses:	
Residential (indicate # of single-family units):	
Residential (indicate # of multi-family units):	253 units
Commercial (indicate total square footage):	
Industrial (indicate total square footage):	
Office (indicate total square footage):	
Mixed Use (indicate total square footage/# units):	
Other (describe):	
3. Is the project located in a Transit Priority Area (within ½-mile radius of light rail station) or the East Bidwell Mixed Use Overlay?	Yes ___ No X
4. Provide a brief description below of the proposed project:	
Cole Partners Development Company (project applicant) proposes the Folsom Corporate Center apartment project (proposed project), a 253-unit, market-rate apartment community on two lots (Lot 1 and Lot 6, estimated 11.92 acres total) within the Folsom Corporate Center located south of Iron Point Road between Oak Avenue Parkway and Broadstone Parkway. The project proposes a change in land use designation for the two lots from industrial (IND) to multi-family residential (MHD).	

Part 1: Land Use Consistency

Land Use Consistency*		
Checklist Item *(Check the appropriate box and provide an explanation and supporting documentation for your answer to either A, B, C, or D).*	**Yes**	**No**
A. The proposed project is consistent with the City's 2035 General Plan land use and zoning designations.†	X	
B. If proposed project is not consistent with the 2035 General Plan land use designation, the proposed amendment or rezone will result in an increased density within a Transit Priority Area (TPA) or East Bidwell Mixed-Use Overlay area (refer to 2035 General Plan Land Use Map).(1), (4)		
C. If the proposed project is not consistent with the 2035 General Plan land use and zoning designations, the project will include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations.(2), (4)		
D. The proposed project is located in and consistent with the requirements of the Folsom Plan Area Specific Plan (FPASP) area south of Highway 50.(3), (5)		

If "**Yes**," proceed to Part 2 of the Checklist and:

(1) For question B above, also complete Part 3 of the checklist.

(2) For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

(3) For question D above, the project is covered by the requirements of the FPASP and its EIR and does NOT need to complete the Checklist.

If "**No**," in accordance with the CEQA Significance Thresholds, the project's GHG impact is significant.

(4) For questions A, B, C, and D the project must nonetheless incorporate each of the measures identified in Part 2 to mitigate cumulative GHG emissions impacts unless the City finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Part 2 of the Checklist.

* *Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.*

† *In the event of a conflict between the 2035 General Plan and Zoning Code (Chapter 17 of the Folsom Municipal Code), to check YES the project must be consistent with the 2035 General Plan requirements. If the project is not consistent with the zoning, a rezone may be required unless the project includes affordable housing.*

Explanation:
Yes. The project proposes a land use change from Industrial/Office Park (IND) to multi-family high density residential (MHD), a rezone of Lot 1 from Limited Manufacturing Planned Development (M-L, PD) to General Apartment District (R-4), and a rezone of Lot 6 from Business and Professional Planned Development (B-P, PD) to General Apartment District (R-4).

The operational GHG emissions resulting from maximum allowable build out under the existing and proposed land use/zoning was calculated using CalEEMod and model defaults. For the existing land use/zoning, the most GHG intensive use allowed without a conditional use permit would be a 2-stroy professional office building with a 60% lot coverage (623,600 square feet [SF] total floor space). The resulting annual GHG emissions for the year 2024 would be 6,074 metric tons of carbon dioxide equivalents (MT CO2e). Under the proposed land use/zoning, the most GHG intensive land use would be 1 apartment per 1,700 SF of lot space, or 304 apartments. The resulting annual GHG emissions for the apartments would be 2,431 MT CO2e, 60% lower than maximum build out under the exsiting zoning.

Part 2: GHG Reduction Measures Consistency

The second part of the checklist evaluates a project's consistency with the applicable policies and programs of the General Plan. If "Not Applicable" (N/A) is checked, please explain below.

GHG Reduction Measures - Consistency Checklist				
Checklist Item *(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)*	**GP GHG Measure**	**Yes**	**No**	**N/A**
BUILDING ENERGY SECTOR				
Exceeds Title 24: The project will exceed the requirements of the California Building Energy Efficiency Standards (Title 24, Part 6) by 15% or more; OR	E-1			
CALGreen: The project will comply with Tier 1 or Tier 2 California Green Building Standards Code (CALGreen) (*Residential and non-residential projects*); OR	E-1			
LEED: The project is registered with the USGBC and is pursuing LEED Silver certification or greater (*Non-residential projects only*); OR	E-1	X		
Zero Net Energy: The project will be Zero Net Energy (ZNE) and will include on-site renewable energy as listed in California Green Building Standards Code (CALGreen) in Appendix A4 (Section A4.203).	E-1			
Water Heater Replacement: One of the following types of water heaters will be installed (*Existing buildings only*): • Tankless water heater • Electric water heater • Ground source heat pump • Solar thermal water heater • Heat pump water heater	E-2			X
Energy Audit: An energy audit be performed prior to the issuance of the building permit and the applicant agrees as a condition of approval to incorporate all cost-effective energy improvements into the project based on the recommendations of the energy audit. (*Existing buildings only*)	E-3			X
Renewable Energy for Building Retrofits: The retrofit or expansion for the project will add on-site installation of solar panels/photovoltaics, the use of geothermal heating and cooling, or the use of wind power (*Existing buildings only*).	E-4			X

GHG Reduction Measures - Consistency Checklist				
Checklist Item *(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)*	**GP GHG Measure**	**Yes**	**No**	**N/A**
BUILDING ENERGY SECTOR				

Explanation:

E-1 The project would meet the requirement of the 2019 California Building Energy Efficiency Standards (Title 24, Part 6), including the requirements for on-site photovoltaic electricity generation (solar panels). According to the California Energy Commission (CEC), once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.
(CEC. 2018. 2019 Building Energy Efficiency Standards Frequently Asked Questions).

T-1 The project is larger than 5 acres and is located within the Folsom Corporate Center. With implementation of the project, the Folsom Corporate Center would contain a mix of uses including residential, office, medical office, and light manufacturing/research and development. Sidewalks and/or pedestrian paths would connect the project residences with adjacent land uses.

T-3, T-6, T-8, SW-1, and W-1: All incorporated into the project by mitigation measures.

GHG Reduction Measures - Consistency Checklist				
Checklist Item *(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)*	**GP GHG Measure**	**Yes**	**No**	**N/A**
TRANSPORTATION SECTOR				
Project Location and Density: Project is located within a Transit Priority Area (1/2-mile of a light rail station) or within the East Bidwell Mixed-Use Overlay and has a mix of uses (i.e., residential, office, commercial, etc.) with a minimum density of 20 units per acre (du/ac) or a Floor Area Ratio (FAR) of 0.75; OR	T-1	X	___	___
Mix of Uses: The project is a mixed-use building with two or more uses (i.e., residential, commercial, office, etc.) or if the site is 5 acres or larger there are two or more uses on the site connected by protected pedestrian paths (e.g., sidewalks, elevated walkways) excluding driveways.	T-1			
Complete Streets (*New Development only*): For projects that include the construction of new streets, the project will design and build complete streets (i.e., streets with sidewalk, planter strip, bike lane and vehicle lane(s)) as set forth in Section 11 of the City's Design and Procedures Manual and Improvement Standards - Standard Construction Specifications and Details.	T-2	___	___	X

<table>
<tr><th colspan="5">GHG Reduction Measures - Consistency Checklist</th></tr>
<tr><th>Checklist Item
(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)</th><th>GP GHG Measure</th><th>Yes</th><th>No</th><th>N/A</th></tr>
<tr><td colspan="5">TRANSPORTATION SECTOR</td></tr>
<tr><td>Bicycle Parking: Project provides 5% more bicycle parking spaces than required in the City's Municipal Code (Section 17.57.090); OR</td><td>T-3</td><td rowspan="2">X</td><td rowspan="2">___</td><td rowspan="2">___</td></tr>
<tr><td>Shower Facilities (Non-residential only): Project would either meet the requirements of Section 17.57.050(C) of the Folsom Municipal Code or will install changing/shower facilities in accordance with the voluntary measures under Appendix A5 of the California Green Building Standards Code (CALGreen) as shown in the table below:
<table>
<tr><th>Number of Tenant Occupants (Employees)</th><th>Shower/Changing Facilities Required</th><th>Personal Effects Lockers Required (12" x 15" x 72")</th></tr>
<tr><td>0-10</td><td>0</td><td>0</td></tr>
<tr><td>11-50</td><td>1</td><td>2</td></tr>
<tr><td>51-100</td><td>3</td><td>3</td></tr>
<tr><td>101-200</td><td>5</td><td>4</td></tr>
<tr><td>201 and over</td><td>1 shower stall plus 1 additional stall for each 200 additional tenant-occupants</td><td>1 locker plus 1 locker for each additional 50 additional tenant occupants</td></tr>
</table>
</td><td>T-3</td></tr>
<tr><td>Reduced Parking Capacity (Non-Residential): For new non-residential projects, the project will reduce total parking spaces by 5% and will comply with the requirements of Section 17.57.050(C) of the Folsom Municipal Code OR provide one or more of the following:
Shared parking agreement with adjacent property owner.
Use of street parking or compact spaces on site plan.
Program to encourage employees to carpool, ride share or use alternate forms of transportation (e.g., employee bus pass program).</td><td>T-5</td><td>___</td><td>___</td><td>X</td></tr>
</table>

<table>
<tr><th colspan="5">GHG Reduction Measures - Consistency Checklist</th></tr>
<tr><th>Checklist Item
(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)</th><th>GP GHG Measure</th><th>Yes</th><th>No</th><th>N/A</th></tr>
<tr><td colspan="5">TRANSPORTATION SECTOR</td></tr>
<tr><td>High-Performance Diesel (Construction only): Use high-performance diesel (also known as Diesel-HPR or Reg-9000/RHD) for construction equipment.</td><td>T-6</td><td>X</td><td>___</td><td>___</td></tr>
<tr><td>Electric Vehicle Charging (Residential): For multifamily projects with 17 or more dwelling units, provide electric vehicle charging in 5% of total parking spaces; OR</td><td>T-8</td><td rowspan="3">X</td><td rowspan="3">___</td><td rowspan="3">___</td></tr>
<tr><td>Electric Vehicle Charging (Residential): For one- and two-family dwellings and townhouses with attached private garages, install at least one (1) electric vehicle charger which includes a dedicated 208/240-volt branch circuit that has an overcurrent protective device rated at 40 amperes minimum per dwelling unit; OR</td><td>T-8</td></tr>
<tr><td>Electric Vehicle Charging (Non-Residential): Project will install electric vehicle charging stations based on the total number of parking spaces and shown in the table below:
<table><tr><th>Total Parking Spaces</th><th>Number of Required Spaces</th></tr><tr><td>0-9</td><td>0</td></tr><tr><td>10-25</td><td>2</td></tr><tr><td>26-50</td><td>3</td></tr><tr><td>51-75</td><td>5</td></tr><tr><td>76-100</td><td>7</td></tr><tr><td>101-150</td><td>10</td></tr><tr><td>151-200</td><td>14</td></tr><tr><td>201 and over</td><td>8% of total</td></tr></table></td><td>T-8</td></tr>
</table>

GHG Reduction Measures - Consistency Checklist				
Checklist Item *(Check the appropriate box and provide an explanation and supporting documentation for your answer. Only one action for each GHG Measure is required)*	**GP GHG Measure**	**Yes**	**No**	**N/A**
SOLID WASTE				
Enhanced Construction Waste Diversion: Project diverts to recycle or salvage at least 65% of nonhazardous construction and demolition waste generated at the project site in accordance with either Appendix A4 (Residential) or Appendix A5 (Non-Residential) of the California Green Building Standards Code. This may be done by using a waste management company that can provide verifiable documentation that the waste diversion complies with this requirement.	SW-1	X	___	___
WATER AND WASTE WATER				
Water Efficiency: For new residential and non-residential projects, the project will comply with all applicable indoor and outdoor water efficiency and conservation measures required under CALGreen Tier 1, as outlined in the California Green Building Standards Code.	W-1	X	___	___
Commercial Water Audit: For existing commercial and industrial projects that require substantial addition, alteration, and expansion to existing facilities, the project must comply with a water audit. The water audit must be performed prior to issuance of a building permit. The applicant agrees, as a condition of approval, to incorporate all cost-effective water efficiency improvements into the project design, per recommendations in the water audit.	W-2	___	___	X
Large Landscape Irrigation Audit: For existing multi-family projects or commercial and industrial projects on lots 5 acres or larger, the project must comply with a water audit. The water audit must be performed prior to issuance of a building permit. The applicant agrees, as a condition of approval, to incorporate all cost-effective water efficiency improvements into the project design, per recommendations in the water audit.	W-2	___	___	X

Part 3: Project Conformance Evaluation (*if applicable*)

The third part of the consistency review only applies if B is checked YES in Part 1. The purpose of this is to determine whether a project that is located in any of the City's Transit Priority Areas (i.e., 1/2-mile of the Historic Folsom Station TPA, Glenn Station TPA, or Iron Point Station TPA) or the East Bidwell Mixed Use Overlay area which includes a land use plan and/or zoning designation amendment is nevertheless consistent with the General Plan's GHG Reduction Strategy because it would implement those policies and programs. In general, a project that would result in a reduction in density inside a TPA or mixed-use overlay area[‡] would not be consistent with the GHG reduction policies nor could it take advantage of CEQA streamlining benefits available through Senate Bill 375 (2009). The following questions must each be answered in the affirmative and fully explained.

1. Would the proposed project implement the General Plan's Transit Oriented Development (TOD) or Mixed-Use District policies in an identified Transit Priority Area (TPA) or Mixed Use Overlay area that will result in an increase in the capacity for transit-supportive residential and/or employment densities?

Considerations for this question:

a) Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA or Mixed-Use Overlay area (Minimum of 20 du/acre)? **Yes ___ No ___ N/A ___**

b) Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA or Mixed-Use Zone (Minimum of 0.75 FAR)? **Yes ___ No ___ N/A ___**

c) If the project is mixed-use, is 75% or the total building square footage for residential use? **Yes ___ No ___ N/A ___**

If N/A, checked please explain: _____

_____

_____

[‡] *Project located in the East Bidwell Mixed-Use Overlay area would not qualify for CEQA streamlining under SB 375 unless the project was located near a high frequency bus stop (i.e., a stop with 15-minute bus headways during peak commute times. Currently none of the City's bus stops are high frequency bus stops).*

2. Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas or Mixed-Use Overlay areas to increase the use of transit?

Considerations for this question:

a) Does the proposed project support/incorporate identified transit routes and stops/stations? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

b) Does the project include transit priority measures consistent with General Plan Goal 3.1 and related policies? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

3. Would the proposed project implement pedestrian improvements in Transit Priority Areas or Mixed-Use Overlay areas to increase walking opportunities?

Considerations for this question:

a) Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, parks, shopping centers, and libraries)? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

b) Does the proposed project urban design include features for walkability to promote a transit supportive environment? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

c) Does the project fill gaps in the City's existing sidewalk network?
Yes ___ No ___ N/A ___

Explain: _____

_____

_____

4. Would the proposed project implement the City of Folsom's Bicycle Master Plan to increase bicycling opportunities?

Considerations for this question:

a) Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

b) Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users (i.e., includes separated sidewalks, bike paths, and vehicle travel lanes)? **Yes ___ No ___ N/A ___**

Explain: _____

_____

_____

5. Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?

Considerations for this question:

a) Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA or Mixed-Use Overlay area?
Yes ___ No ___ N/A ___

Explain: _____

_____

_____

b) Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA or Mixed-Use Overlay area?
Yes ___ No ___ N/A ___

Explain: _____

_____

_____

c) Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking[§], reduced parking, paid or time-limited parking, etc.?
Yes ___ No ___ N/A ___

Explain: _____

_____

_____

[§] *"Unbundled parking" is a strategy in which parking spaces are rented or sold separately, rather than automatically included with the rent or purchase price of a residential or commercial unit.*

Appendix A - City GHG Reduction Measures and Implementing Programs**

E-1 Improve Building Energy Efficiency in New Development*

- PFS-25 Zero Net Energy Development: Adopt an ordinance to require ZNE for all new residential construction by 2020 and commercial construction by 2030, in coordination with State actions to phase in ZNE requirements through future triennial building code updates.
    - Applicable to: New Development
- LU-6 Adopt Green Building: Encourage new residential and non-residential construction projects to adopt and incorporate green building features included in the CALGreen Tier 1 checklist in project designs; and, encourage projects to seek LEED rating and certification that would meet equivalent CALGreen Tier 1 standards or better. Consider future amendments to City code to adopt CALGreen Tier 1 requirements consistent with State building code. For projects subject to CEQA seeking to streamline GHG analysis consistent with the General Plan, CALGreen Tier 1 compliance would be required.
    - Applicable to: New Development

E-2 Water Heater Replacement in Existing Residential Development

- PFS-23 High-Efficiency or Alternatively-Powered Water Heater Replacement Program: Provide educational material and information on the City's website, as well as through the permit and building department, on the various high-efficiency and alternatively-powered water heat replacement options available to current homeowners considering water heater replacement; develop appropriate financial incentives, working with energy utilities or other partners; and, streamline the permitting process. Replacement water heaters could include high-efficiency natural gas (i.e., tankless), or other alternatively-powered water heating systems that reduce or eliminate natural gas usage such as solar water heating systems, tankless or storage electric water heaters, and electric heat pump systems.
    - Applicable to: Existing Development

E-3 Improve Building Energy Efficiency in Existing Residential Development

- PFS-24 Energy Efficiency and Renewable Energy Retrofits and Programs: Strive to increase energy efficiency and renewable energy use in existing buildings through participation in available programs. Actions include:

** GHG Reduction Strategy measures are from Appendix A of the 2035 General Plan adopted August 28, 2018.

- Establish a dedicated City program with a clear intent to provide support and promote available green building and energy retrofit programs for existing buildings.
- Incentivize solar installation on all existing buildings that undergo major remodels or renovations, and provide permit streamlining for solar retrofit projects.
- Provide rebates or incentives to existing SMUD customers for enrolling in the existing Greenergy program.
- Provide education to property owners on low-interest financing and/or assist property owners in purchasing solar photovoltaics through low- interest loans or property tax assessments.
- Continue to work with SMUD and other private sector funding sources to increase solar leases or power purchase agreements (PPAs).
    - Applicable to: Existing Development

E-4 Increase Use of Renewable Energy in Existing Development

- PFS-24 Energy Efficiency and Renewable Energy Retrofits and Programs: Strive to increase energy efficiency and renewable energy use in existing buildings through participation in available programs. Actions include:
    - Establish a dedicated City program with a clear intent to provide support and promote available green building and energy retrofit programs for existing buildings.
    - Incentivize solar installation on all existing buildings that undergo major remodels or renovations, and provide permit streamlining for solar retrofit projects.
    - Provide rebates or incentives to existing SMUD customers for enrolling in the existing Greenergy program.
    - Provide education to property owners on low-interest financing and/or assist property owners in purchasing solar photovoltaics through low- interest loans or property tax assessments.
    - Continue to work with SMUD and other private sector funding sources to increase solar leases or power purchase agreements (PPAs).
        - Applicable to: Existing Development

T-1 Reduce VMT through Mixed and High-Density Land Use*

- LU-1. Update the Zoning Ordinance: Develop a priority list for how sections of the Folsom Zoning Ordinance and applicable guidelines will be updated consistent with the General Plan. The City shall review and update the Folsom Zoning Ordinance and applicable guidelines, consistent with the policies and diagrams of the General Plan. The update shall include developing appropriate standards to encourage mixed use within the East Bidwell Overlay area and transit-oriented development around light rail

stations, including restrictions on automobile-oriented uses within one-quarter mile of light rail stations. The City shall review and update the Historic District Design and Development Guidelines.

  - Applicable to: New and Existing Development

- LU-4. Property Owner Outreach on Overlay Designations: Reach out to property owners within the East Bidwell Mixed Use Overlay and Transit-Oriented Development Overlay areas to explain the options available to property owners and developers in this area, and provide technical assistance, as appropriate, to facilitate development within these areas.

  - Applicable to: New and Existing Development

T-2 Improve Streets and Intersections for Multi-Modal Use and Access*

- M-8. Bicycle and Pedestrian Improvements: Identify regional, State, and Federal funding sources to support bicycle and pedestrian facilities and programs to improve roadways and intersections by 2035. Actions include:

  - Require bicycle and pedestrian improvements as conditions of approval for new development on roadways and intersections serving the project. Improvements may include, but are not limited to: on-street bike lanes, traffic calming improvements such as marked crosswalks, raised intersections, median islands, tight corner radii, roundabouts, on-street parking, planter strips with street trees, chicanes, chokers, any other improvement that focuses on reducing traffic speeds and increasing bicycle and pedestrian safety. For projects subject to CEQA seeking to streamline GHG analysis consistent with the General Plan, incorporation of applicable bicycle and pedestrian improvements into project designs or conditions of approval would be required.
  - Based on the most recent citywide inventory of roadways and pedestrian/bicycle facilities, identify areas of greatest need, to focus improvements on first. Areas to prioritize include roadways or intersections with a lack of safety features, street where disruption in sidewalks or bicycle lanes occurs, areas of highest vehicle traffic near commercial centers and transit facilities, where increased use of pedestrian/bicycle facilities would be most used.
    - Applicable to: Existing and New Development

T-3 Adopt Citywide TDM Program

- M-1. Transportation Demand Management: Adopt a citywide Transportation Demand Management (TDM) program that encourages residents to reduce the amount of trips taken with single-occupancy vehicles. The program shall be designed to achieve an overall 15 percent vehicle mile traveled (VMT) reduction over 2014 levels and a 20 percent reduction in City-employee commute VMT. The City shall coordinate with

employers to develop a menu of incentives and encourage participation in TDM programs.

- Applicable to: Existing and New Development

T-5 Reduce Minimum Parking Standards*

- M-11. Parking Standards Review and update its parking standards as necessary to reduce the amount of land devoted to parking and encourage shared parking arrangements, particularly in mixed-use and transit-oriented developments.
  - Applicable to: Existing and New Development

T-6 Require the Use of High-Performance Renewable Diesel in Construction Equipment*

- PFS-26 Renewable Diesel: Revise the City of Folsom's Standard Construction Specifications to require that all construction contractors use high-performance renewable diesel for both private and City construction. Phase in targets such that high-performance renewable diesel would comprise 50 percent of construction equipment diesel usage for projects covered under the specifications through 2030, and 100 percent of construction equipment diesel usage in projects covered under the specifications by 2035.

  For projects subject to CEQA seeking to streamline GHG analysis consistent with the General Plan, the use of high-performance renewable diesel would be required consistent with the above targets.
  - Applicable to: Existing and New Development

T-8 Install Electric Vehicle Charging Stations*

- M-3. Electric Vehicle Charge Stations in Public Places: Develop and implement a citywide strategy to install electric vehicle charging stations in public places where people shop, dine, recreate, and gather.
  - Applicable to: Existing and New Development

SW-1 Increase Solid Waste Diversions

- This measure is addressed though Program LU-6 (Adopt Green Building) as both LEED and CALGreen Tier 1 require solid waste diversion to gain certification.
  - Applicable to: Existing and New Development

W-1 Increase Water Efficiency in New Residential Development*

- PFS-27 Reduce Water Consumption in New Development: Encourage water efficiency measures for new residential construction to reduce indoor and outdoor water use. Actions include: promote the use of higher efficiency measures, including: use of low-water irrigation systems, and installation of water- efficient appliances and plumbing fixtures. Measures and targets can be borrowed from the latest version of the Guide to the California Green Building Standards Code (International Code Council)

  For projects subject to CEQA seeking to streamline GHG analysis consistent with the general plan, compliance with CALGreen Tier 1 Water Efficiency and Conservation measures would be required.

  - Applicable to: New Development
  - Time Frame: Ongoing

W-2 Reduce Outdoor Water Use in New Residential Development*

- PFS-27 Reduce Water Consumption in New Development: Encourage water efficiency measures for new residential construction to reduce indoor and outdoor water use. Actions include: promote the use of higher efficiency measures, including: use of low-water irrigation systems, and installation of water- efficient appliances and plumbing fixtures. Measures and targets can be borrowed from the latest version of the Guide to the California Green Building Standards Code (International Code Council)

  For projects subject to CEQA seeking to streamline GHG analysis consistent with the general plan, compliance with CALGreen Tier 1 Water Efficiency and Conservation measures would be required.

  - Applicable to: New Development
  - Time Frame: Ongoing

**Applies to projects subject to CEQA seeking to streamline GHG analysis consistent with the general plan.*

HELIX Environmental Planning, Inc.
11 Natoma Street, Suite 155
Folsom, CA 95630
916.365.8700 tel
619.462.0552 fax
www.**helixepi**.com

January 26, 2022 Project 02576.00035.001

Mr. Scott Johnson, AICP
Planning Manager
City of Folsom, Community Development Department
50 Natoma Street
Folsom, CA 95630

Subject: Folsom Corporate Center Mobile Source Health Risk Assessment

Dear Mr. Johnson:

HELIX Environmental Planning, Inc. (HELIX) has evaluated potential health risks to future residents of the Folsom Corporate Center apartment project (project) in accordance with the Sacramento Metropolitan Air Quality Management District's (SMAQMD's) guidelines. This letter provides a summary of the SMAQMDs recommended metrology and tools, results of the analysis, and recommended health risk reduction measures.

PROJECT LOCATION

The project site consists of two parcels situated in south/central City of Folsom in northeastern Sacramento County, California. The first parcel, referred to as Lot 1 (APN: 072-3120-026), is an estimated 7.24-acre parcel located south of Rowberry Drive at a point south of Iron Point Road. The second parcel, referred to as Lot 6 (APN 072-3120-023), is a 4.68-acre parcel located south of Iron Point Road between Broadstone Parkway and Rowberry.

PROJECT DESCRIPTION

The proposed project includes the construction of a new multi-family apartment community on two separate parcels (referred to as Lot 1 and Lot 6) within the Folsom Corporate Center. The apartment community in total would consist of 253 apartment units, two clubhouses, approximately 491 parking spaces, and indoor and outdoor amenities unique to each parcel. On-site parking would include garage parking spaces, carport covered parking spaces, and uncovered parking spaces.

MOBILE SOURCE TOXIC AIR CONTAMINATS

Toxic air contaminants (TAC) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health.

TACs can cause long-term chronic health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

The Health and Safety Code (§39655[a]) defines TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." All substances that are listed as hazardous air pollutants pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) are designated as TACs. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Mobile sources are emissions of TAC and other pollutants from vehicles traveling on public roads and emissions associated with railroads. Vehicle exhaust contains TACs, primarily diesel particulate matter (DPM) and Total Organic Gases (TOG).

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2022a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2022).

TOG emissions occur with vehicle tailpipe emissions and evaporation from the fuel system, and include various TACs including benzene, ethylbenzene, formaldehyde, naphthalene, and acetaldehyde. Each TAC component of vehicle TOG emissions has its own health risk and toxicity factors and is evaluated separately. Risks are summed to determine the overall health risk of TOG emissions.

RISK ANALYSIS METHODOLOGY

The SMAQMD has guidance on how to evaluate the health risks of locating new sensitive receptors near high volume roadways and rail lines in Sacramento County. In Chapter 5 of the SMAQMD's CEQA Guidelines (SMAQMD 2020a):

> *For projects that would site receptors in close proximity to major roadways and railways, lead agencies shall use the District's Mobile Sources Air Toxics Protocol (Protocol). The Protocol includes an online risk mapping tool disclosing cancer risk and $PM_{2.5}$ concentrations at a user-*

> *selected location, an accompanying guidance document, a methodology document, and exposure reduction measures […].*

Mobile Sources Air Toxics Protocol

The project is located in proximity to U.S. Highway 50 (US-50)—Lot 1 located approximately 90 feet from the nearest travel lane and Lot 6 is located approximately 370-feet from the nearest travel lanes. The increase in health risks to future project residents resulting from proximity to US-50 was estimated using the SMAQMD's Mobile Sources Air Toxics Protocol (MSAT Protocol).

The MSAT Protocol includes the following resources (SMAQMD 2020b):

- An internet-based Mapping Tool that discloses localized cancer risk and $PM_{2.5}$ levels;
- A guidance Guidance document on how to use and understand the Mapping Tool;
- A Technical Appendix and Methodology explaining the calculations; and
- Suggested Exposure Reduction Measures that lead agencies, developers, business owners and residents can implement to reduce risk.

The Mapping Tool includes the following pollutant sources in Sacramento County:

- Interstate 5
- Interstate 80
- Interstate 80 Business
- US-50
- State Route 99
- Segments of State Route 160, Sunrise Boulevard, Watt Avenue and Hazel Avenue that exceed 100,000 Average Daily Traffic
- All railways in Sacramento County except for the SSRR and SVRR subdivisions.

The mapping tool provides health risk results (cancer risks from vehicle exhaust DPM and TOG) and $PM_{2.5}$ concentrations for a 20-meter grid spacing of points extending 2 km out from high volume roads (100,000 or more vehicles per day) and rail lines in the county. The risk levels and concentrations reported by the Mapping Tool were developed using: the roadway traffic volumes and speeds; emissions data from California Air Resources Board's Emission Factor (EMFAC) database for vehicles within Sacramento County; the USEPA's AERMOD gaussian plume dispersion model to calculate localized concentrations of pollutants; and guidance and protocols issued by the California Office of Environmental Health Hazard Assessment (OEHHA Guidance) for estimating risk. The complete details of the MSAT Protocol are available in the Technical Appendix and Methodology document (SMAQMD 2020b).

DETERMINATION OF SIGNIFICANCE

The SMAQMD does not generally consider the effect of new receptors in areas with high existing concentrations of pollutants to be a CEQA issue (SMAQMD 2019):

> *The California Supreme Court decision in the case of California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369 clarified that the California*

> *Environmental Quality Act (CEQA) does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit odors and toxic air contaminants on new receptors from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). While existing sources that emit odors and toxic air contaminants may not be considered a CEQA impact, local jurisdictions have the authority to protect the public health, safety and welfare of their communities through their police powers. To address potential public health impacts, the Sacramento Metropolitan Air Quality Management District (District) recommends that proposed developments that will expose receptors to existing sources that emit odors and toxic air contaminants be analyzed and exposure reduced as part of the lead agency's planning process.*

The SMAQMD does not recommend any threshold for acceptable increases in health risk estimated using the MSAT Protocol (SMAQMD 2020b):

> *The Sac Metro Air District does not recommend any particular health risk or concentration-based thresholds for use with the MSAT Protocol and its Mapping Tool, and defers to the local jurisdiction to determine appropriate risk levels for intervention. However, for reference, the Bay Area Air Quality Management District* [BAAQMD] *suggests a cumulative cancer risk threshold of 100 cancers in a million from all local sources, and a cumulative PM2.5 threshold of 0.8 µg/m³. San Joaquin Valley Air Pollution Control District has a CEQA threshold of 20 cancers in a million for both cumulative and project-specific impacts due to carcinogens. Additionally, the San Joaquin Valley Air Pollution Control District* [*considers any PM2.5 concentration above the California Ambient Air Quality Standard of 12 µg/m³ to be a significant impact*.

The BAAQMD recommends evaluating all TAC sources (permitted stationary sources and high-volume roads) within 1,000 feet of new receptors. The BAAQMD cancer risk threshold for any single source of TACs is 10 in 1 million and the cancer risk threshold from all (cumulative) sources in the 1,000-foot radius is 100 in 1 million (BAAQMD 2017). This analysis uses the most health protective threshold from the BAAQMD, assuming emissions from US-50 would be considered a single source: Health risks to future project residents from TAC emission on US 50 would be potentially significant if the incremental cancer risk exceeds 10 in 1 million, or if the localized PM*2.5* concentration exceeds 0.8 µg/m3.

RESULTS OF THE ANALYSIS

Using the MSAT Protocol Mapping Tool, the project Lot 1 apartments are in an area with increased cancer risks ranging from 19 in 1 million to 32 in 1 million, and $PM_{2.5}$ concentrations ranging from 0.49 µg/m^3 to 0.91 µg/m^3. Lot 6 has cancer risk ranging from 30 in 1 million to 47 in 1 million and $PM_{2.5}$ concentrations ranging from 0.8 µg/m^3 to 1.3 µg/m^3. Representative screenshot from the Mapping Tool showing the high and low risk point in the project parcels is included in Attachment 1 to this letter. Note: Lot 6 has higher cancer risks even though it is further from US-50. This result is likely due to the terrain—Lot 6 is close to the same elevation as the freeway and Lot 1 is elevated 30 to 40 feet above the freeway. The cancer risk increase would exceed both the BAAQMD's threshold of 10 in 1 million and the SJCAPCD's threshold of 20 in 1 million. PM2.5 concentrations would exceed the BAAQMD's threshold of 08. µg/m^3. Therefore, the increase health risk to future project residents would be potentially significant.

Risk Reduction

The SMAQMD has three strategies for reducing the increase health risk from mobile source TACS: Indoor Air Treatments; Land Use Design; Solid Vegetation Barriers.

The land use design strategy involves siting residential building as far from the highway as practical within the lots and incorporating building and lot features to promote dispersion of pollutants. The solid vegetation barrier strategy involves planting dense arrangements of certain bushes, and trees between sensitive receptors and highways. While these two strategies have been shown to improve pollutant dispersion in studies and should be considered, they may not achieve sufficient levels of risk reduction for project residents.

The third strategy, indoor air treatments, involves the use of improved heating, ventilations, and air conditioning (HVAC) system filtration, or portable air cleaners. From the MSAT Protocol (SDMAQMD 2020b):

> *HVAC filters are rated by the size of particles they can capture. Some manufacturers report the effectiveness based on the Minimum Efficiency Reporting Value (MERV) rating system. Others use a Micro-Particle Performance Rating (MPR), or a Filter Performance Rating (FPR). The Sac Metro Air District recommends a MERV of at least 13, an MPR of at least 1500, or an FPR of at least 10. An FPR of 10 and an MPR of 1500 are equivalent to a MERV 13.*

Accordingly, it is recommended that the project be conditioned with the following risk reduction measure:

AQ-1 The building design shall include a mechanical ventilation system that meets the criteria of the International Building Code (Chapter 12, §1203.2 of the California Building Code) to ensure that windows would be able to remain closed while maintaining adequate ventilation and temperature control. The mechanical ventilation system shall be designed to accommodate, and equipped with, filters having a Minimum Efficiency Reporting Value (MERV) rating of 13 or higher.

SUMMARY

As described above, following the SMAQMD's MSAT Protocol and using the associated Mapping Tool, future project residents would be located in an area with elevated pollutant concentrations, and the increased health risk from emissions on US Highway 50 would be potentially significant. Risk reduction measure AQ-1 would require a mechanical ventilation system (e.g., HVAC system equipped with filters having a MERV 13 rating or higher).

Sincerely,

Victor Ortiz
Senior Air Quality Specialist

Attachments:

Attachment A: MSAT Mapping Tool Results

REFERENCES

Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines. Available at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

California Air Resources Board (CARB). 2022. Overview: Diesel Exhaust and Health. Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 2022.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2020a. Guide to Air Quality Assessment in Sacramento County, Chapter 5. Available at: http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools.

2020b. Mobile sources Air Toxics Protocol. Available at: https://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mobile-Sources-Air-Toxics-Protocol.

2019. Recommendations for Siting New Projects Near Existing Sources that Emit Odors and Toxic Air Contaminants. July. Available at: https://www.airquality.org/LandUseTransportation/Documents/ExistingOdorsToxicsRecommendationsFinal7-24-19.pdf.

Welcome to the mapping tool for the Sacramento Metro Air District Mobile Sources Air Toxics Protocol.

This tool is designed to be used with the Guidance and Methodology documents.

This tool gives a conservative estimate of cancer risk and PM2.5 concentrations for points extending two kilometers out from roadways where at least 100,000 vehicles travel daily on average, and rail lines, within Sacramento County. These areas are shaded grey.

Instructions: Zoom in to the gray highlighted area where you want to see the cancer risk and PM2.5 concentrations. Then, click on a blue dot to show the results.

The results do not reflect existing features on or next to the location you choose that may reduce risk such as barriers, tree plantings, or enhanced indoor filtration.

For more detailed instructions and supporting information, see the Guidance and Methodology documents.

For assistance, contact Rachel DuBose (916-874-4876, rdubose@airquality.org) or Paul Philley (916-874-4882, pphilley@airquality.org)

Admin Login

Display: Rail Road | Highway

click the map or zoom in to view receptor grid

Collapse Figures >>

Risk is calculated assuming residential exposure to diesel particulate matter (DPM) emissions from locomotives, and DPM and total organic gas (TOG) emissions from highway vehicles. DPM is estimated to be equal to the PM10 emissions.

By Health Risk

Health Risk Variable	Estimated Value
DPM (in one million)	28
TOG (in one million)	3.5
Total DPM + TOG (in one million)	*32*
PM2.5 (µg/m3)	0.91

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By Health Risk

Health Risk Variable	Estimated Value
DPM (in one million)	18
TOG (in one million)	1.9
Total DPM + TOG (in one million)	*19*
PM2.5 (µg/m3)	0.49

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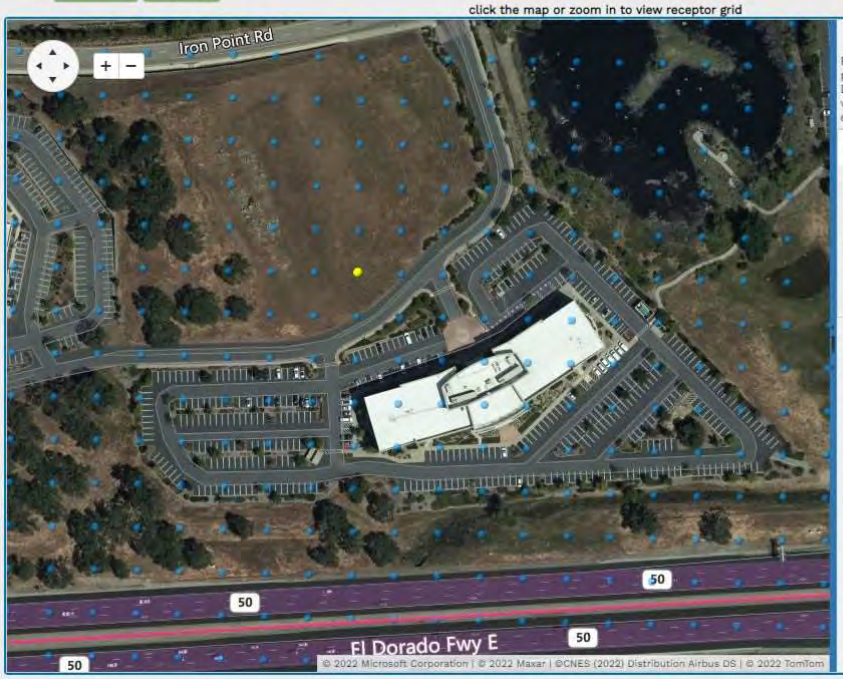

Collapse Figures >>

Risk is calculated assuming residential exposure to diesel particulate matter (DPM) emissions from locomotives, and DPM and total organic gas (TOG) emissions from highway vehicles. DPM is estimated to be equal to the PM10 emissions.

By Health Risk

Health Risk Variable	Estimated Value
DPM (in one million)	43
TOG (in one million)	4.8
Total DPM + TOG (in one million)	*47*
PM2.5 (µg/m3)	1.3

Welcome to the mapping tool for the Sacramento Metro Air District Mobile Sources Air Toxics Protocol.

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This tool gives a conservative estimate of cancer risk and PM2.5 concentrations for points extending two kilometers out from roadways where at least 100,000 vehicles travel daily on average, and rail lines, within Sacramento County. These areas are shaded grey.

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By Health Risk

Health Risk Variable	Estimated Value
DPM (in one million)	26
TOG (in one million)	3.1
Total DPM + TOG (in one million)	*30*
PM2.5 (µg/m3)	0.8