

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

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Appendix C

Air Quality and Greenhouse Gas/Energy Analysis Modeling Assumptions and Results

Appendix C: Modeling Assumptions

Baldwin Zacharias Master Plan Modeling Information

Site Acreage 1227.1

Zacharias Acreage 1158.4

Baldwin Acreage 68.7

Buildout Time 20 Years

Total Project Statistics

	Gross Acreage	DU	Square Feet	Average Annual Units/SF	Avg Annual Acres
Low Density Residential	216.4	809		40.45	10.8
Medium Density Residential	536.9	3454		172.7	26.8
High Density Residential	30.5	538		26.9	1.5
				240.05	39.2
Mixed Use (Acres)	27.5	194	505,000	9.7	1.4
Mixed Use (SF)				25250	
General Commercial	22.2		350,000	17500	1.1
Light Industrial	317.5		6,910,000	345500	15.9
Warehouse					
Park/Trails	62.7				3.1
Open Space/Lake	13.4				0.7
Totals	1227.1	4,995	7,765,000		
Project Description Amounts		5,086			
Average Annual Development	61.4	254	388,250		

329.7

19.63

Baldwin Project Stats

	Gross Acreage	DU	
Low Density Residential	65.9	305	151.44

Includes 2.0 acres of parks, 2.0 acres for Park/basin, 1.0 acres for trails.

Distance to Downtown **2.5 Miles**

Project Description Land Use Summary

Land Use Designation		Acres	Units	Average Acres/Year	Average DU/Year
MDR		125.3	700		
		30.9	342		
		294.4	2005		
		75.9	498		
		526.5	3545	26.3	177
LDR		64.8	378		
		143.7	431		
		60.9	305		
		269.4	1114	13.5	56
HDR		17.9	322		
		12.6	216		
		30.5	538	1.5	27
Total All Designations		826.4	5197		
Mixed Use Res			194		
			5391		

Turlock Irrigation District Baseline	lbs/MWh	lbs/MWh	lbs/MWh
2005	790	0.029	0.00667
33% RPS Mandate by 2020	519.59		
50% RPS by 2030	387.76		

Traffic Study	DU/kSF	Acres	Avg DU/Year	Avg Acres/Year	Trip Generation		
					Weekday	Saturday	Sunday
MDR ITE 220	343				7.32	8.14	6.28
	595						
	272						
	471						
	340						
	605						
	700						
	320						
	395						
Total	4041	526.5	202.1	26.3			
					Weekday	Saturday	Sunday
HDR ITE 221	147				5.44	4.91	4.09
	246						
	216						
Total	609	30.5	30.5	1.5			
					Weekday	Saturday	Sunday
LDR ITE 210	431				9.44	9.54	8.55
	400						
Total	831	269.4	41.6	13.5			
Total DU	5481	826.4	274.1	41.3			
			Acres		Weekday	Saturday	Sunday
Elem School ITE 520	500 Students			14	1.89		
Middle School ITE 522	900 Students			16	2.13		
Parks/Basin				62.7			
Open Space Lake				13.4			
					Weekday	Saturday	Sunday
Community Comm ITE 820	350 KSF			22.2	37.75	46.12	21.1
Mixed Use ITE 820	315 KSF						
Mixed Use ITE 820	190 KSF			27.5			
Total	855				49.7		

			Weekday	Saturday	Sunday
Light Industrial ITE 150 WH	2730 KSF	136.5	1.74	0.15	0.06
Light Industrial ITE 110	4181 KSF	209.05	4.96	1.99	5
Total	6911 KSF	345.55			
		846.9			
		826.4			
		1673.3			
		1227	317.5	19.63	
		446.3	49.7	95.98	
			367.2	62.67	
				178.28	
			188.92		

Appendix C: Construction Assumptions

Construction Schedule and Fleet Mix

Default Construction Schedule Residential

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysV	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2021/02/11	5	30
2	Grading	Grading	2021/02/12	2021/05/27	5	75
3	Building Construction	Building Construction	2021/05/28	2024/03/28	5	740
4	Paving	Paving	2024/03/29	2024/06/13	5	55
5	Architectural Coating	Architectural Coating	2024/06/14	2024/08/29	5	55

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysV	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2021/01/21	5	15
2	Grading	Grading	2021/01/22	2021/03/04	5	30
3	Building Construction	Building Construction	2021/03/05	2021/11/04	5	175
4	Paving	Paving	2021/11/05	2021/12/02	5	20
5	Architectural Coating	Architectural Coating	2021/12/03	2021/12/30	5	20

Ajdusted Equipment Usage

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per Phase	Adjusted Days	Adjusted Equip No.	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	30	720	15	6	247	0.4
Site Preparation	Tractors/Loaders/Backh	4	8	30	960	15	8	97	0.37
Grading	Excavators	2	8	75	1200	30	5	158	0.38
Grading	Graders	1	8	75	600	30	3	187	0.41
Grading	Rubber Tired Dozers	1	8	75	600	30	3	247	0.4
Grading	Scrapers	2	8	75	1200	30	5	367	0.48
Grading	Tractors/Loaders/Backh	2	8	75	1200	30	5	97	0.37
Building Construc	Cranes	1	7	740	5180	175	4	231	0.29
Building Construc	Forklifts	3	8	740	17760	175	13	89	0.2
Building Construc	Generator Sets	1	8	740	5920	175	4	84	0.74
Building Construc	Tractors/Loaders/Backh	3	7	740	15540	175	13	97	0.37
Building Construc	Welders	1	8	740	5920	175	4	46	0.45
Paving	Pavers	2	8	55	880	20	6	130	0.42
Paving	Paving Equipment	2	8	55	880	20	6	132	0.36
Paving	Rollers	2	8	55	880	20	6	80	0.38
Architectural Coa	Air Compressors	1	6	55	330	20	3	78	0.48

59770

Equipment numbers adjusted to account for shorter schedule while retaining default hours of operation.

Default Construction Schedule Industrial and Commercial

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysV	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2021/01/14	5	10
2	Grading	Grading	2021/01/15	2021/02/25	5	30
3	Building Construction	Building Construction	2021/02/26	2022/04/21	5	300
4	Paving	Paving	2022/04/22	2022/05/19	5	20
5	Architectural Coating	Architectural Coating	2022/05/20	2022/06/16	5	20

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysV	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2021/01/14	5	10
2	Grading	Grading	2021/01/15	2021/02/25	5	30
3	Building Construction	Building Construction	2021/02/26	2021/11/04	5	180
4	Paving	Paving	2021/11/05	2021/12/02	5	20
5	Architectural Coating	Architectural Coating	2021/12/03	2021/12/30	5	20

Ajdusted Equipment Usage

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per Phase	Adjusted Days	Adjusted Equip No.	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	10	240	10	3	247	0.4
Site Preparation	Tractors/Loaders/Backh	4	8	10	320	10	4	97	0.37
Grading	Excavators	2	8	30	480	30	2	158	0.38
Grading	Graders	1	8	30	240	30	1	187	0.41
Grading	Rubber Tired Dozers	1	8	30	240	30	1	247	0.4
Grading	Scrapers	2	8	30	480	30	2	367	0.48
Grading	Tractors/Loaders/Backh	2	8	30	480	30	2	97	0.37
Building Construc	Cranes	1	7	300	2100	180	2	231	0.29
Building Construc	Forklifts	3	8	300	7200	180	5	89	0.2
Building Construc	Generator Sets	1	8	300	2400	180	2	84	0.74
Building Construc	Tractors/Loaders/Backh	3	7	300	6300	180	5	97	0.37
Building Construc	Welders	1	8	300	2400	180	2	46	0.45
Paving	Pavers	2	8	20	320	20	2	130	0.42
Paving	Paving Equipment	2	8	20	320	20	2	132	0.36
Paving	Rollers	2	8	20	320	20	2	80	0.38
Architectural Coa	Air Compressors	1	6	20	120	20	1	78	0.48

23960

Equipment numbers adjusted to account for shorter schedule while retaining default hours of operation.

Construction Energy Use

Residential

Adjusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	1 Site Preparation	Site Preparatio	2021/01/01	2021/01/21	5	15
2	2 Grading	Grading	2021/01/22	2021/03/04	5	30
3	3 Building Construction	Building Constr	2021/03/05	2021/11/04	5	175
4	4 Paving	Paving	2021/11/05	2021/12/02	5	20
5	5 Architectural Coating	Architectural C	2021/12/03	2021/12/30	5	20

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per		Load Factor	Fuel Use
					Phase	Horse Power		
Site Preparation	Rubber Tired Dc	3	8	15	360	247	0.4	4,446
Site Preparation	Tractors/Loader	4	8	15	480	97	0.37	2,328
Grading	Excavators	2	8	30	480	158	0.38	3,792
Grading	Graders	1	8	30	240	187	0.41	2,244
Grading	Rubber Tired Dc	1	8	30	240	247	0.4	2,964
Grading	Scrapers	2	8	30	480	367	0.48	8,808
Grading	Tractors/Loader	2	8	30	480	97	0.37	2,328
Building Construction	Cranes	1	7	175	1225	231	0.29	14,149
Building Construction	Forklifts	3	8	175	4200	89	0.2	18,690
Building Construction	Generator Sets	1	8	175	1400	84	0.74	5,880
Building Construction	Tractors/Loader	3	7	175	3675	97	0.37	17,824
Building Construction	Welders	1	8	175	1400	46	0.45	3,220
Paving	Pavers	2	8	20	320	130	0.42	2,080
Paving	Paving Equipme	2	8	20	320	132	0.36	2,112
Paving	Rollers	2	8	20	320	80	0.38	1,280
Architectural Coating	Air Compressor:	1	6	20	120	78	0.48	468

92,613

15740

.05 gallons/HP-hr from SCAQMD CEQA Guide

0.05 gal/hp-hr

Comm and Industrial

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2021/01/14	5	10
2	Grading	Grading	2021/01/15	2021/02/25	5	30
3	Building Constri	Building Construction	2021/02/26	2021/11/04	5	180
4	Paving	Paving	2021/11/05	2021/12/02	5	20
5	Architectural Cc	Architectural Coating	2021/12/03	2021/12/30	5	20

Comm and Industrial

PhaseName	OffRoad Equipment		UsageHours	Days/Phase	Hours Per Phase		Load Factor	Fuel Use
	Type	Unit Amount			Phase	Horse Power		
Site Preparation	Rubber Tired Dc	3	8	10	240	247	0.4	2,964
Site Preparation	Tractors/Loader	4	8	10	320	97	0.37	1,552
Grading	Excavators	2	8	30	480	158	0.38	3,792
Grading	Graders	1	8	30	240	187	0.41	2,244
Grading	Rubber Tired Dc	1	8	30	240	247	0.4	2,964
Grading	Scrapers	2	8	30	480	367	0.48	8,808
Grading	Tractors/Loader	2	8	30	480	97	0.37	2,328
Building Construction	Cranes	2	7	180	2520	231	0.29	29,106
Building Construction	Forklifts	5	8	180	7200	89	0.2	32,040
Building Construction	Generator Sets	2	8	180	2880	84	0.74	12,096
Building Construction	Tractors/Loader	5	7	180	6300	97	0.37	30,555
Building Construction	Welders	2	8	180	2880	46	0.45	6,624
Paving	Pavers	2	8	20	320	130	0.42	2,080
Paving	Paving Equipme	2	8	20	320	132	0.36	2,112
Paving	Rollers	2	8	20	320	80	0.38	1,280
Architectural Coating	Air Compressor:	1	6	20	120	78	0.48	468
								141,013

Elementary School

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Site Preparation	Site Preparation	2021/01/01	2020/12/31	5	10
2	Grading	Grading	2021/01/01	2021/02/11	5	30
3	Building Constri	Building Construction	2021/02/12	2022/04/07	5	300
4	Paving	Paving	2022/04/08	2022/05/05	5	20
5	Architectural Cc	Architectural Coating	2022/05/06	2022/06/02	5	20

Elementary School

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per Phase	Horse Power	Load Factor	Fuel Use
Site Preparation	Rubber Tired Dc	3	8	10	240	247	0.4	2,964
Site Preparation	Tractors/Loader	4	8	10	320	97	0.37	1,552
Grading	Excavators	2	8	30	480	158	0.38	3,792
Grading	Graders	1	8	30	240	187	0.41	2,244
Grading	Rubber Tired Dc	1	8	30	240	247	0.4	2,964
Grading	Scrapers	2	8	30	480	367	0.48	8,808
Grading	Tractors/Loader	2	8	30	480	97	0.37	2,328
Building Construction	Cranes	1	7	300	2100	231	0.29	24,255
Building Construction	Forklifts	3	8	300	7200	89	0.2	32,040
Building Construction	Generator Sets	1	8	300	2400	84	0.74	10,080
Building Construction	Tractors/Loader	3	7	300	6300	97	0.37	30,555
Building Construction	Welders	1	8	300	2400	46	0.45	5,520
Paving	Pavers	2	8	20	320	130	0.42	2,080
Paving	Paving Equipme	2	8	20	320	132	0.36	2,112
Paving	Rollers	2	8	20	320	80	0.38	1,280
Architectural Coating	Air Compressor:	1	6	20	120	78	0.48	468
								133,042

Middle School

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Site Preparati	Site Preparation	2023/01/01	2023/01/13	5	10
2	Grading	Grading	2023/01/14	2023/02/24	5	30
3	Building Constri	Building Construction	2023/02/25	2024/04/19	5	300
4	Paving	Paving	2024/04/20	2024/05/17	5	20
5	Architectural Cc	Architectural Coating	2024/05/18	2024/06/14	5	20

Middle School

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per Phase	Horse Power	Load Factor	Fuel Use
Site Preparation	Rubber Tired Dc	3	8	10	240	247	0.4	2,964
Site Preparation	Tractors/Loader	4	8	10	320	97	0.37	1,552
Grading	Excavators	2	8	30	480	158	0.38	3,792
Grading	Graders	1	8	30	240	187	0.41	2,244
Grading	Rubber Tired Dc	1	8	30	240	247	0.4	2,964
Grading	Scrapers	2	8	30	480	367	0.48	8,808
Grading	Tractors/Loader	2	8	30	480	97	0.37	2,328
Building Construction	Cranes	1	7	300	2100	231	0.29	24,255
Building Construction	Forklifts	3	8	300	7200	89	0.2	32,040
Building Construction	Generator Sets	1	8	300	2400	84	0.74	10,080
Building Construction	Tractors/Loader	3	7	300	6300	97	0.37	30,555
Building Construction	Welders	1	8	300	2400	46	0.45	5,520
Paving	Pavers	2	8	20	320	130	0.42	2,080
Paving	Paving Equipme	2	8	20	320	132	0.36	2,112
Paving	Rollers	2	8	20	320	80	0.38	1,280
Architectural Coating	Air Compressor:	1	6	20	120	78	0.48	468
								133,042

Parks

Ajdusted Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Site Preparati	Site Preparation	2021/04/09	2021/05/06	5	20
2	Grading	Grading	2021/05/07	2021/06/17	5	30
3	Building Constri	Building Construction	2021/06/18	2021/07/29	5	30
4	Architectural Cc	Architectural Coating	2021/07/13	2021/07/14	5	2
5	Paving	Paving	2021/07/30	2021/08/12	5	10

Parks

PhaseName	OffRoad Equipment Type	OffRoad Equipment Unit Amount	UsageHours	Days/Phase	Hours Per Phase	Horse Power	Load Factor	Fuel Use
Site Preparation	Rubber Tired Dc	3	8	20	480	247	0.4	5,928
Site Preparation	Tractors/Loader	4	8	20	640	97	0.37	3,104
Grading	Excavators	2	8	30	480	158	0.38	3,792
Grading	Graders	1	8	30	240	187	0.41	2,244
Grading	Rubber Tired Dc	1	8	30	240	247	0.4	2,964
Grading	Scrapers	2	8	30	480	367	0.48	8,808
Grading	Tractors/Loader	2	8	30	480	97	0.37	2,328
Building Construction	Cranes	0	7	30	0	231	0.29	0
Building Construction	Forklifts	1	8	30	240	89	0.2	1,068
Building Construction	Generator Sets	1	8	30	240	84	0.74	1,008
Building Construction	Tractors/Loader	1	7	30	210	97	0.37	1,019
Building Construction	Welders	0	8	30	0	46	0.45	0
Architectural Coating	Air Compressor:	1	6	2	12	78	0.48	47
Paving	Pavers	2	8	10	160	130	0.42	1,040
Paving	Paving Equipme	2	8	10	160	132	0.36	1,056
Paving	Rollers	2	8	10	160	80	0.38	640
								35,045
Total Fuel Use (gallons)	534,755							

Construction VMT

Residential	Days/Phase	Worker Trips/day	Worker Trips/Phase	Vendor Trips/day	Vendor Trips/Phase	Hauling Trips/day	Hauling Trips/Phase	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	15	18	270	0	0	0	0	10.8	7.3	20
Grading	30	20	300	0	0	0	0			
Building Construction	175	167	2505	28	420	0	0			
Architectural Coating	20	15	225	0	0	0	0			
Paving	20	33	495	0	0	0	0			
Totals		253	3795	28	420	0	0			
								Total		
VMT/Year			40,986			3,066	0	44,052		

Comm/Industrial	Days/Phase	Worker Trips/day	Worker Trips/Phase	Vendor Trips/day	Vendor Trips/Phase	Hauling Trips/day	Hauling Trips/Phase	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	10	18	270	0	0	0	0	10.8	7.3	20
Grading	30	20	300	0	0	0	0			
Building Construction	180	332	4980	131	1965	0	0			
Architectural Coating	20	15	225	0	0	0	0			
Paving	20	66	990	0	0	0	0			
Totals		451	6765	131	1965	0	0			
								Total		
VMT/Year			73,062		14,345		0	87,407		

Elementary School	Days/Phase	Worker Trips/day	Worker Trips/Phase	Vendor Trips/day	Vendor Trips/Phase	Hauling Trips/day	Hauling Trips/Phase	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	10	18	270	0	0	0	0	10.8	7.3	20
Grading	30	20	300	0	0	0	0			
Building Construction	300	256	3840	100	1500	0	0			
Architectural Coating	20	15	225	0	0	0	0			
Paving	20	51	765	0	0	0	0			
Totals		360	5400	100	1500	0	0			
								Total		
VMT/Year			58,320		10,950		0	69,270		

Middle School	Days/Phase	Worker Trips/day	Worker Trips/Phase	Vendor Trips/day	Vendor Trips/Phase	Hauling Trips/day	Hauling Trips/Phase	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	10	18	270	0	0	0	0	10.8	7.3	20
Grading	30	20	300	0	0	0	0			
Building Construction	300	293	4395	114	1710	0	0			
Architectural Coating	20	15	225	0	0	0	0			
Paving	20	59	885	0	0	0	0			
Totals		405	6075	114	1710	0	0			
								Total		
VMT/Year			65,610		12,483		0	78,093		

Parks	Days/Phase	Worker Trips/day	Worker	Vendor	Vendor	Hauling	Hauling	Worker Trip	Vendor Trip	Hauling
			Trips/Phase	Trips/day	Trips/Phase	Trips/day	Trips/day	Trips/Phase	Length	Length
Site Preparation	20	18	270	0	0	0	0	10.8	7.3	20
Grading	30	20	300	0	0	0	0			
Building Construction	30	1143	17145	446	6690	0	0			
Architectural Coating	2	15	225	0	0	0	0			
Paving	10	229	3435	0	0	0	0			
Totals		1425	21375	446	6690	0	0			
								Total		
VMT/Year			230,850		48,837		0	279,687		

Construction VMT Summa	VMT/Year	VMT/Buildout
Residential	44,052	881,040
Comm/Industrial	87,407	1,748,130
Elementary School		69,270
Middle School		78,093
Parks		279,687
Total VMT at Buildout		3,056,220
Average MPG for Stanislaus		21.1
Fuel Use		144,845

Appendix C: References

References used in Air Quality Section

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Appendix C: Emission Summary

Baldwin Zacharias MP Emission Summary

Construction Emissions Unmitigated Annual	ROG	NOX	CO	Tons per Year			
				SO2	PM10	PM10 (exh)	PM2.5
Residential (Average Annual)	2.24	9.28	8.26	0.02	1.25	0.47	0.79
Commercial/Industrial (Average Annual)	1.85	5.32	4.56	0.01	0.76	0.21	0.39
Subtotal	4.09	14.60	12.82	0.03	2.01	0.68	1.18
Middle School (Highest Year)	0.38	3.35	3.27	0.01	0.67	0.11	0.30
Park	0.21	2.05	1.50	0.00	0.56	0.06	0.26
Subtotal	0.59	5.40	4.77	0.01	1.23	0.17	0.56
Combined Total for Max Year	4.68	20.00	17.59	0.04	3.24	0.85	1.73
Emissions after Compliance With Rule 9510 ISR	4.68	16.00	17.59	0.04	2.77	0.47	1.73
20% Nox Reduction and 45% PM10 Exh Reduction							

Operational Emissions (Unmitigated) Buildout	ROG	NOX	CO	Tons Per Year			
				SO2	PM10	PM2.5	
Residential	50.14	36.40	259.23	0.90	70.25	37.75	
Commercial/Industrial	41.38	116.37	78.83	0.63	48.87	13.53	
Elementary School	0.30	0.45	0.83	0.00	0.56	0.15	
Middle School	0.70	0.95	1.83	0.01	1.17	0.32	
Parks	0.18	0.49	1.56	0.00	0.35	0.10	
Total	92.70	154.66	342.29	1.54	121.20	51.85	
Emissions after Compliance With Rule 9510 ISR	92.70	103.01	342.29	1.54	60.60	51.85	
33% Nox Reduction and 50% PM10 Reduction							

Operational Emissions (Mitigated) Buildout	ROG	NOX	CO	Tons Per Year		
				SO2	PM10	PM2.5
Residential	33.13	32.94	102.54	0.37	42.21	11.95
Commercial/Industrial	41.17	114.55	74.86	0.59	45.53	12.62
Elementary School	0.44	0.74	2.19	0.01	0.53	0.15
Middle School	0.30	0.45	0.84	0.00	0.53	0.14
Parks	0.18	0.49	1.56	0.00	0.35	0.10
Total	75.22	149.16	181.98	0.98	89.14	24.96

Construction Emissions for Baldwin MP Only

Construction Emissions Unmitigated Annual		Tons per Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
2021		0.45	4.55	3.30	0.01	1.12	0.61
2022		0.29	2.52	2.58	0.01	0.25	0.14
2023		0.26	2.26	2.52	0.01	0.23	0.13
2024		0.25	2.14	2.50	0.01	0.23	0.12
2025		0.21	1.85	2.36	0.01	0.19	0.10
2026		2.26	0.18	0.31	0.00	0.02	0.01
Highest Emissions in Any Year		2.26	4.55	3.30	0.01	1.12	0.61

Operations Baldwin MP Only 2021

		Tons per Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
Unmitigated Operations		3.56	4.32	15.33	0.04	3.22	0.92
Mitigated Operations		3.53	4.14	14.63	0.04	3.00	0.86

Operations Baldwin MP Only 2040

		Tons per Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
Unmitigated Operations		4.17	2.58	19.08	0.07	5.18	2.89
Total with ISR Reduction		4.17	1.72	19.08	0.07	2.59	2.89

Operations

Maximum Daily Emissions (Max Daily Per Phase)	Pounds per Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
	14.06	3.07	26.40	0.02	0.36	0.36
	0.24	2.01	0.86	0.01	0.16	0.16
	0.38	1.41	5.51	0.01	1.25	0.34
	14.68	6.50	32.77	0.05	1.78	0.87
Fraction Onsite mobile within 0.5 Mi.		0.068				

Max Daily Construction Assumptions

	Acres	Units	Limiting Pollutant	Const Phase	Emissions
					lbs/day Unmitigated
Baldwin Residential	65.9	350 DU	Nox	Grading	46.46
Shopping Center	22.2	350 KSF	Nox	Grading	46.45
Industrial Warehouse	23	500 KSF	Nox	Grading	45.45
Middle School	16	900 Students	Nox	Grading	34.56

Individual projects could double the default work intensity and not exceed the SJVAPCD daily screening threshold for requiring dispersion modeling. For example, the phase schedule could be shortened by half which would double the amount of equipment needed to accomplish the same work. Two adjacent projects could be grading at the default rates and not exceed the 100 pound per day threshold without mitigation.

ROG does not have a concentration based emission standard; therefore, no significant impact would occur for this pollutant. CO is the second highest pollutant at 33 lbs/day and could increase by 3 times without exceeding the screening threshold.

Max Daily Construction Emissions

Baldwin Residential Default Sched.

	ROG	NOX	Lbs/Day			
			CO	SO2	PM10	PM2.5
2021	4.28	46.46	31.46	0.06	20.26	11.85
2022	2.25	19.38	19.88	0.04	1.95	1.08
2023	2.06	17.37	19.38	0.04	1.84	0.97
2024	1.93	16.38	19.07	0.04	1.75	0.89
2025	1.80	15.36	18.77	0.04	1.66	0.81
2026	59.78	8.61	14.86	0.02	0.54	0.42
Maximum Any Year	59.78	46.46	31.46	0.06	20.26	11.85

Shopping Center Default Sched 22 ac 350 KSF

	ROG	NOX	Lbs/Day			
			CO	SO2	PM10	PM2.5
2021	4.29	46.45	31.69	0.10	8.34	4.57
2022	118.67	32.81	30.21	0.10	4.19	1.21
Maximum Any Year	118.67	46.45	31.69	0.10	8.34	4.57

Industrial Warehouse Default Sched 23 ac 500 ksf

	ROG	NOX	Lbs/Day			
			CO	SO2	PM10	PM2.5
2021	4.37	45.45	33.58	0.11	8.34	4.57
2022	161.64	33.66	31.93	0.11	4.67	1.34
Maximum Any Year	161.64	45.45	33.58	0.11	8.34	4.57

Middle School Default Sched 16 ac 900 Student

	Lbs/Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
2023	3.40	34.56	28.62	0.08	8.34	4.57
2024	44.61	23.25	25.22	0.08	3.24	0.92
Maximum Any Year	44.61	34.56	28.62	0.08	8.34	4.57

Max Daily Operational Emissions**Baldwin Residential**

	Lbs/Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
Area	14.06	3.07	26.40	0.02	0.36	0.36
Energy	0.24	2.01	0.86	0.01	0.16	0.16
Mobile	0.38	1.41	5.51	0.01	1.25	0.34
	14.68	6.50	32.77	0.05	1.78	0.87
Onsite mobile within 0.5 Mi.		0.068				

Shopping Center

	Lbs/Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
Area	9.11	0.00	0.04	0.00	0.00	0.00
Energy	0.11	1.01	0.85	0.01	0.08	0.08
Mobile	2.22	16.37	16.39	0.07	4.22	1.17
	11.44	17.38	17.27	0.08	4.30	1.25
Onsite mobile within 0.5 Mi.		0.068				

Industrial Warehouse

	Lbs/Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
Area	11.76	0.00	0.05	0.00	0.00	0.00
Energy	0.27	2.43	2.04	0.01	0.18	0.18
Mobile	0.14	1.08	1.39	0.01	0.38	0.38
	12.17	3.51	3.48	0.02	0.56	0.56
Onsite mobile within 0.5 Mi.		0.068				

Middle School

	Lbs/Day					
	ROG	NOX	CO	SO2	PM10	PM2.5
Area	2.95	0.00	0.09	0.00	0.00	0.00
Energy	0.08	0.71	0.59	0.00	0.05	0.05
Mobile	0.24	0.57	2.12	0.01	0.63	0.17
	3.27	1.28	2.80	0.01	0.68	0.22
Onsite mobile within 0.5 Mi.		0.068				

ROG provided for information only. There is no concentration based health standard for ROG, so dispersion modeling is not required.

GHG Targets

State Target for 2020 (MMTCO2e)	431.00			
State Target for 2030 (MMTCO2e)	260.00			
State Population (2030 Scoping Plan projection)	44,085,600	2040	43,946,643	
Per Capita Emissions - all sources	5.90		4.58	

MMTCO2e 2030 Per Capita

State 2030 Inventory with Ag, High GWP, Industrial, and 6 MMT from Transp. Removed	158.52	3.75
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		Percent Reduction 2020-2050	Avg Annual Reduction	Reductions needed by 2040	Reductions Needed (MMTCO2e)	2040 Statewide Inventory	2040 Dev Inventory
State Target for 2050 from 2017 Scoping Plan							
2050 Per Capita	2.00					4.58	2.79
2050 Inventory (80% below 1990 levels)	86.20	0.80	0.027	0.53	229.87	201.13	122.63
2050 Pop Projection DOF Report P-1	44,856,461						
2040 Pop Projection DOF Report P-1	43,946,643						
2030 Pop Projection DOP Report P-1	42,263,654						
2050 Per Capita with Newest Projections	1.92						

Construction GHG Emissions

Land Use Category	Average Annual (Tons/Year CO2e)	Cumulative 20 years Tons CO2e	Year 1	Year 2	Total
Residential	1,313.58	26,271.64			
Commercial/Industrial	1,042.00	20,839.93			
Elementary School		1,130.04	870.95	259.09	1,130.04
Middle School		1,204.33	893.02	311.31	1,204.33
Parks		445.91			
Total		49,891.85			
Amortized over 30 years		1,663.06			

Operational GHG Mitigated	Commercial					Parks MTCO2e/ year	All Land Uses MTCO2e/ year	Inventory Fraction
	Residential MTCO2e/ year	/Industrial MTCO2e/ year	Elem School MTCO2e/ year	Middle School MTCO2e/ year				
Area	2,456.58	0.15	0.01	0.02		0.00	2,456.76	0.02
Energy	10,890.79	25,223.25	111.41	273.73		0.00	36,499.17	0.32
Mobile	24,452.97	42,289.48	315.50	694.86		198.30	67,951.11	0.59
Waste	1,129.54	3,261.97	34.42	82.60		2.03	4,510.55	0.04
Water	773.65	3,100.15	3.79	8.53		36.85	3,922.96	0.03
Total	39,703.52	73,875.00	465.12	1,059.74		237.18	115,340.55	1.00
Amortized Construction Emissions							1,663.06	
Total with Construction							117,003.61	
Per Capita Res Only	1.99				Project Per Capita		5.85	
Population	19,988				2040 Target		2.79	
Employees	8,670							
Population and Employees	28,658				Reductions Required		55,775 MTCO2e	
					Percent reduction needed		0.48	
	MTCO2e/ year	MTCO2e/ year	MTCO2e/ year	MTCO2e/ year		MTCO2e/ year	MTCO2e/ year	
Mobile without LCFS	30,566.21	52,861.85	394.37	868.58		247.87	84,938.89	
Mobile with 20% LCFS	24,452.97	42,289.48	315.50	694.86		198.30	67,951.11	
Baldwin MP GHG Construction								
	2021	601.41						
	2022	514.08						
	2023	507.68						
	2024	507.16						
	2025	462.88						
	2026	47.09						
Total		2,640.31						
Amortized over 30 Years		88.01						

Baldwin MP GHG Mitigated 2040

	MTCO₂e/ year
Area	136.70
Energy	871.05
Mobile	1,721.50
Waste	118.40
Water	43.05
Total	2,890.71
Amortized Construction Emissions	88.01
	2,978.72
Per Capita	3.42
Population (CalEEMod)	872.00
Mobile without LCFS	2,151.88
Mobile with 20% LCFS	1,721.50

Energy Use at Buildout

	Electricity kWh/yr	Nat Gas kBTU/yr
Residential SFR	281,901	20,422,400
Residential Condo/Townhouse	22,056,800	68,570,100
Residential Apts	2,819,010	8,165,180
Total Residential	27,694,820	97,157,680
Rate/Unit	5,053	17,726
Gen Light Industrial	35,996,400	86,546,700
Warehouse No Rail	67,867,800	404,040
Regional Shopping Center	6,771,600	9,071,550
Parking	2,866,250	0
Elementary School	283,833	1,040,030
Parking	30,492	0
Middle School	718,419	2,632,440
Parking	30,492	0
Total Nonresidential	114,565,286	99,694,760
Rate/SF	14.75	12.84
Total	142,260,106	196,852,440

VMT at Buildout	VMT	MPG	
Residential	110,113,270		
Commercial/Industrial	118,661,989		
Elementary School	1,385,639		
Middle School	2,866,009		
Parks	868,071		
	233,894,978	21.1	11,085,070

Water Consumption

Land Use	Mgal/Yr		Mgal/Yr Total
	Indoor	Outdoor	
Apartments	31.74	20.01	
Condos/Townhomes	210.63	132.79	
Single Family Housing	43.31	27.31	
	285.69	180.11	
General Light Industrial	773.49	0.00	
Warehouse-no rail	505.05	0.00	
Regional Shopping Center	83.41	31.05	
	1,361.94	31.05	
Elementary School	0.97	2.49	
Middle School	1.75	4.49	
Parks	0.00	59.55	
Total Water Use at Buildout	1,650.35	277.69	1,928.03

CalEEMod default energy use/Mgal

	Supply			Total
	Water	Treat Water	Distribute	
Energy Use Rates (kW/Mgal)	2117	111	1272	3500
Energy Use for Water for Project				6,748,120

Wastewater Treatment Energy Use

	Treat Waste Water
Energy Use Rate for Treatment (kW/Mgal)	1911
Energy use for Project Water Treatment kWh/Year	3,153,813

Appendix C: CalEEMod Output

CalEEMod Output

Residential Construction 2021 (Average Annual)

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

**Baldwin Zacharias Master Plan Residential Construction
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	27.00	Dwelling Unit	1.50	27,000.00	77
Single Family Housing	56.00	Dwelling Unit	13.50	100,800.00	160
Condo/Townhouse	177.00	Dwelling Unit	26.30	177,000.00	506

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2021
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

Project Characteristics - TID Intensity Factors for 2030

Land Use - Average annual residential construction

Construction Phase - One year schedule based on average annual units completed.

Off-road Equipment - Increased equipment number to accommodate one year schedule while retaining default hours.

Off-road Equipment - Adjusted equipment numbers to accommodate one year schedule with default hours of use.

Off-road Equipment - Increased equipment to account for one year schedule while retaining default hours of use.

Off-road Equipment - Increased equipment numbers to accommodate one year schedule while retaining default hours of use.

Off-road Equipment - Increased equipment to match a one year schedule while retaining default hours.

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition from TIS

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation - SJVAPCD Rule 4601 Compliant coatings

Energy Mitigation - 2019 Title 24

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Residential Fleet Mix

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	65
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	30.00	15.00
tblConstructionPhase	NumDays	75.00	30.00
tblConstructionPhase	NumDays	740.00	175.00
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	55.00	20.00

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tblConstructionPhase	PhaseEndDate	2/11/2021	1/21/2021
tblConstructionPhase	PhaseEndDate	5/27/2021	3/4/2021
tblConstructionPhase	PhaseEndDate	3/28/2024	11/4/2021
tblConstructionPhase	PhaseEndDate	6/13/2024	12/2/2021
tblConstructionPhase	PhaseEndDate	8/29/2024	12/30/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	1/22/2021
tblConstructionPhase	PhaseStartDate	5/28/2021	3/5/2021
tblConstructionPhase	PhaseStartDate	3/29/2024	11/5/2021
tblConstructionPhase	PhaseStartDate	6/14/2024	12/3/2021
tblFleetMix	HHD	0.09	0.02
tblFleetMix	HHD	0.09	0.02
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.6820e-003	9.0000e-004
tblFleetMix	LHD2	5.6820e-003	9.0000e-004
tblFleetMix	LHD2	5.6820e-003	9.0000e-004

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tblFleetMix	MCY	4.7430e-003	2.6000e-003
tblFleetMix	MCY	4.7430e-003	2.6000e-003
tblFleetMix	MCY	4.7430e-003	2.6000e-003
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MDV	0.13	0.05
tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	SBUS	8.5600e-004	9.0000e-004
tblFleetMix	SBUS	8.5600e-004	9.0000e-004
tblFleetMix	SBUS	8.5600e-004	9.0000e-004
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblGrading	AcresOfGrading	195.00	187.50
tblLandUse	LotAcreage	1.69	1.50
tblLandUse	LotAcreage	18.18	13.50
tblLandUse	LotAcreage	11.06	26.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	13.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	13.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblTripsAndVMT	WorkerTripNumber	35.00	18.00
tblTripsAndVMT	WorkerTripNumber	53.00	20.00
tblVehicleTrips	HO_TTP	37.70	38.00
tblVehicleTrips	HO_TTP	37.70	38.00
tblVehicleTrips	HO_TTP	37.70	38.00
tblVehicleTrips	HS_TTP	13.90	14.00
tblVehicleTrips	HS_TTP	13.90	14.00
tblVehicleTrips	HS_TTP	13.90	14.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	7.16	4.91
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	ST_TR	5.67	8.14

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tblVehicleTrips	SU_TR	6.07	4.09
tblVehicleTrips	SU_TR	8.62	4.09
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	WD_TR	6.59	5.44
tblVehicleTrips	WD_TR	9.52	9.44
tblVehicleTrips	WD_TR	5.81	7.32
tblWoodstoves	NumberCatalytic	13.50	37.60
tblWoodstoves	NumberCatalytic	26.30	0.00
tblWoodstoves	NumberNoncatalytic	13.50	37.60
tblWoodstoves	NumberNoncatalytic	26.30	0.00

2.0 Emissions Summary

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	3.5227	2.3297
2	4-1-2021	6-30-2021	2.7567	2.1361
3	7-1-2021	9-30-2021	2.7870	2.1596
		Highest	3.5227	2.3297

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	2.3433	0.2376	9.2126	0.0243		1.1990	1.1990		1.1990	1.1990	158.0705	115.7874	273.8579	0.7442	2.0600e-003	293.0773
Energy	0.0271	0.2316	0.0985	1.4800e-003		0.0187	0.0187		0.0187	0.0187	0.0000	548.1705	548.1705	0.0210	8.5300e-003	551.2372
Mobile	0.7177	2.5671	8.6494	0.0239	2.1042	0.0251	2.1293	0.5635	0.0235	0.5870	0.0000	2,190.9154	2,190.9154	0.1245	0.0000	2,194.0285
Waste						0.0000	0.0000		0.0000	0.0000	30.7410	0.0000	30.7410	1.8167	0.0000	76.1594
Water						0.0000	0.0000		0.0000	0.0000	5.3743	22.6964	28.0707	0.5533	0.0133	45.8739
Total	3.0881	3.0364	17.9606	0.0497	2.1042	1.2428	3.3470	0.5635	1.2412	1.8047	194.1857	2,877.5697	3,071.7554	3.2597	0.0239	3,160.3763

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3844	0.1196	1.9761	7.2000e-004		0.0185	0.0185		0.0185	0.0185	0.0000	115.7874	115.7874	5.2100e-003	2.0600e-003	116.5331
Energy	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	530.5439	530.5439	0.0206	8.2200e-003	533.5075
Mobile	0.7026	2.4589	8.1858	0.0224	1.9590	0.0235	1.9825	0.5246	0.0220	0.5466	0.0000	2,048.6714	2,048.6714	0.1186	0.0000	2,051.6350
Waste						0.0000	0.0000		0.0000	0.0000	23.0557	0.0000	23.0557	1.3626	0.0000	57.1196
Water						0.0000	0.0000		0.0000	0.0000	4.2994	18.1571	22.4566	0.4426	0.0107	36.6992
Total	2.1125	2.7970	10.2548	0.0245	1.9590	0.0597	2.0187	0.5246	0.0582	0.5828	27.3552	2,713.1598	2,740.5149	1.9495	0.0209	2,795.4944

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	31.59	7.88	42.90	50.77	6.90	95.20	39.69	6.90	95.31	67.71	85.91	5.71	10.78	40.19	12.46	11.55

3.0 Construction Detail

Construction Phase

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/21/2021	5	15	
2	Grading	Grading	1/22/2021	3/4/2021	5	30	
3	Building Construction	Building Construction	3/5/2021	11/4/2021	5	175	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 617,220; Residential Outdoor: 205,740; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	6	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Grading	Excavators	5	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41
Grading	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Cranes	4	7.00	231	0.29
Building Construction	Forklifts	13	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	13	7.00	97	0.37
Building Construction	Welders	4	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	14	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	21	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	38	167.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin Zacharias Master Plan Residential Construction - Stanislaus County, Annual

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	0.0583	0.6075	0.3173	5.7000e-004	0.2710	0.0307	0.3017	0.1490	0.0282	0.1772	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591

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3.2 Site Preparation - 2021

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	5.6000e-004	3.7000e-004	3.9600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9612	0.9612	3.0000e-005	0.0000	0.9619
Total	5.6000e-004	3.7000e-004	3.9600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9612	0.9612	3.0000e-005	0.0000	0.9619

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					0.1220	0.0000	0.1220	0.0670	0.0000	0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0366	0.3639	0.3149	5.7000e-004		0.0182	0.0182		0.0168	0.0168	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590
Total	0.0366	0.3639	0.3149	5.7000e-004	0.1220	0.0182	0.1402	0.0670	0.0168	0.0838	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590

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3.2 Site Preparation - 2021

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	5.6000e-004	3.7000e-004	3.9600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9612	0.9612	3.0000e-005	0.0000	0.9619
Total	5.6000e-004	3.7000e-004	3.9600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9612	0.9612	3.0000e-005	0.0000	0.9619

3.3 Grading - 2021

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					0.3704	0.0000	0.3704	0.1597	0.0000	0.1597	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1684	1.8667	1.2015	2.4400e-003		0.0799	0.0799		0.0735	0.0735	0.0000	214.3513	214.3513	0.0693	0.0000	216.0845
Total	0.1684	1.8667	1.2015	2.4400e-003	0.3704	0.0799	0.4503	0.1597	0.0735	0.2332	0.0000	214.3513	214.3513	0.0693	0.0000	216.0845

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

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					0.1667	0.0000	0.1667	0.0719	0.0000	0.0719	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1132	1.1784	1.2318	2.4400e-003		0.0496	0.0496		0.0458	0.0458	0.0000	214.3511	214.3511	0.0693	0.0000	216.0842
Total	0.1132	1.1784	1.2318	2.4400e-003	0.1667	0.0496	0.2163	0.0719	0.0458	0.1176	0.0000	214.3511	214.3511	0.0693	0.0000	216.0842

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

3.4 Building Construction - 2021

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					
Off-Road	0.6910	6.3496	6.0766	9.7900e-003		0.3514	0.3514		0.3301	0.3301	0.0000	843.3804	843.3804	0.2062	0.0000	848.5342
Total	0.6910	6.3496	6.0766	9.7900e-003		0.3514	0.3514		0.3301	0.3301	0.0000	843.3804	843.3804	0.2062	0.0000	848.5342

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3.4 Building Construction - 2021

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	7.4700e-003	0.2722	0.0447	6.8000e-004	0.0162	7.3000e-004	0.0169	4.6800e-003	7.0000e-004	5.3800e-003	0.0000	64.8981	64.8981	5.3600e-003	0.0000	65.0322
Worker	0.0605	0.0396	0.4283	1.1500e-003	0.1168	8.7000e-004	0.1176	0.0310	8.0000e-004	0.0318	0.0000	104.0359	104.0359	3.0200e-003	0.0000	104.1115
Total	0.0680	0.3118	0.4730	1.8300e-003	0.1330	1.6000e-003	0.1346	0.0357	1.5000e-003	0.0372	0.0000	168.9340	168.9340	8.3800e-003	0.0000	169.1436

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					
Off-Road	0.5372	4.8325	6.1629	9.7900e-003		0.2596	0.2596		0.2442	0.2442	0.0000	843.3794	843.3794	0.2062	0.0000	848.5332
Total	0.5372	4.8325	6.1629	9.7900e-003		0.2596	0.2596		0.2442	0.2442	0.0000	843.3794	843.3794	0.2062	0.0000	848.5332

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3.4 Building Construction - 2021

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	7.4700e-003	0.2722	0.0447	6.8000e-004	0.0162	7.3000e-004	0.0169	4.6800e-003	7.0000e-004	5.3800e-003	0.0000	64.8981	64.8981	5.3600e-003	0.0000	65.0322
Worker	0.0605	0.0396	0.4283	1.1500e-003	0.1168	8.7000e-004	0.1176	0.0310	8.0000e-004	0.0318	0.0000	104.0359	104.0359	3.0200e-003	0.0000	104.1115
Total	0.0680	0.3118	0.4730	1.8300e-003	0.1330	1.6000e-003	0.1346	0.0357	1.5000e-003	0.0372	0.0000	168.9340	168.9340	8.3800e-003	0.0000	169.1436

3.5 Paving - 2021

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					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

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3.5 Paving - 2021

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	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687
Total	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

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3.5 Paving - 2021

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	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687
Total	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687

3.6 Architectural Coating - 2021

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					
Archit. Coating	1.2397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.2419	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.6 Architectural Coating - 2021

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	1.3700e-003	8.9000e-004	9.6700e-003	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3495	2.3495	7.0000e-005	0.0000	2.3512
Total	1.3700e-003	8.9000e-004	9.6700e-003	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3495	2.3495	7.0000e-005	0.0000	2.3512

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					
Archit. Coating	1.2397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.2400	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.6 Architectural Coating - 2021

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	1.3700e-003	8.9000e-004	9.6700e-003	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3495	2.3495	7.0000e-005	0.0000	2.3512
Total	1.3700e-003	8.9000e-004	9.6700e-003	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3495	2.3495	7.0000e-005	0.0000	2.3512

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7026	2.4589	8.1858	0.0224	1.9590	0.0235	1.9825	0.5246	0.0220	0.5466	0.0000	2,048.671 4	2,048.671 4	0.1186	0.0000	2,051.635 0
Unmitigated	0.7177	2.5671	8.6494	0.0239	2.1042	0.0251	2.1293	0.5635	0.0235	0.5870	0.0000	2,190.915 4	2,190.915 4	0.1245	0.0000	2,194.028 5

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	146.88	132.57	110.43	408,642	380,445
Single Family Housing	528.64	534.24	229.04	1,424,217	1,325,946
Condo/Townhouse	1,295.64	1,440.78	1111.56	3,775,582	3,515,067
Total	1,971.16	2,107.59	1,451.03	5,608,440	5,221,458

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.00	14.00	38.00	86	11	3
Single Family Housing	10.80	7.30	7.50	48.00	14.00	38.00	86	11	3
Condo/Townhouse	10.80	7.30	7.50	48.00	14.00	38.00	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600
Single Family Housing	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600
Condo/Townhouse	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	277.5096	277.5096	0.0157	3.5800e-003	278.9696
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	279.9787	279.9787	0.0159	3.6100e-003	281.4516
NaturalGas Mitigated	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0343	253.0343	4.8500e-003	4.6400e-003	254.5379
NaturalGas Unmitigated	0.0271	0.2316	0.0985	1.4800e-003		0.0187	0.0187		0.0187	0.0187	0.0000	268.1919	268.1919	5.1400e-003	4.9200e-003	269.7856

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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	381684	2.0600e-003	0.0176	7.4800e-003	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.3681	20.3681	3.9000e-004	3.7000e-004	20.4892
Condo/Townhouse	3.17991e+006	0.0172	0.1465	0.0624	9.4000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	169.6920	169.6920	3.2500e-003	3.1100e-003	170.7004
Single Family Housing	1.46413e+006	7.8900e-003	0.0675	0.0287	4.3000e-004		5.4500e-003	5.4500e-003		5.4500e-003	5.4500e-003	0.0000	78.1317	78.1317	1.5000e-003	1.4300e-003	78.5960
Total		0.0271	0.2316	0.0985	1.4800e-003		0.0187	0.0187		0.0187	0.0187	0.0000	268.1919	268.1919	5.1400e-003	4.9100e-003	269.7856

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	362003	1.9500e-003	0.0167	7.1000e-003	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3179	19.3179	3.7000e-004	3.5000e-004	19.4327
Condo/Townhouse	3.00344e+006	0.0162	0.1384	0.0589	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.2751	160.2751	3.0700e-003	2.9400e-003	161.2275
Single Family Housing	1.37624e+006	7.4200e-003	0.0634	0.0270	4.0000e-004		5.1300e-003	5.1300e-003		5.1300e-003	5.1300e-003	0.0000	73.4413	73.4413	1.4100e-003	1.3500e-003	73.8777
Total		0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0343	253.0343	4.8500e-003	4.6400e-003	254.5379

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	126293	22.2131	1.2600e-003	2.9000e-004	22.3299
Condo/Townhouse	974934	171.4762	9.7300e-003	2.2100e-003	172.3783
Single Family Housing	490601	86.2894	4.9000e-003	1.1100e-003	86.7434
Total		279.9787	0.0159	3.6100e-003	281.4516

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	124981	21.9822	1.2500e-003	2.8000e-004	22.0979
Condo/Townhouse	966112	169.9246	9.6400e-003	2.1900e-003	170.8186
Single Family Housing	486697	85.6028	4.8600e-003	1.1000e-003	86.0531
Total		277.5096	0.0158	3.5700e-003	278.9696

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	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	1.3844	0.1196	1.9761	7.2000e-004		0.0185	0.0185		0.0185	0.0185	0.0000	115.7874	115.7874	5.2100e-003	2.0600e-003	116.5331
Unmitigated	2.3433	0.2376	9.2126	0.0243		1.1990	1.1990		1.1990	1.1990	158.0705	115.7874	273.8579	0.7442	2.0600e-003	293.0773

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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	0.2861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.8082	0.2153	7.2779	0.0242		1.1884	1.1884		1.1884	1.1884	158.0705	112.6339	270.7044	0.7411	2.0600e-003	289.8474
Landscaping	0.0586	0.0223	1.9347	1.0000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	3.1535	3.1535	3.0600e-003	0.0000	3.2299
Total	2.3433	0.2376	9.2126	0.0243		1.1990	1.1990		1.1990	1.1990	158.0705	115.7874	273.8579	0.7442	2.0600e-003	293.0773

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1904					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0114	0.0973	0.0414	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.6339	112.6339	2.1600e-003	2.0600e-003	113.3033
Landscaping	0.0586	0.0223	1.9347	1.0000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	3.1535	3.1535	3.0600e-003	0.0000	3.2299
Total	1.3844	0.1196	1.9761	7.2000e-004		0.0185	0.0185		0.0185	0.0185	0.0000	115.7874	115.7874	5.2200e-003	2.0600e-003	116.5331

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.4566	0.4426	0.0107	36.6992
Unmitigated	28.0707	0.5533	0.0133	45.8739

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.75916 / 1.10903	2.9150	0.0575	1.3800e-003	4.7638
Condo/Townhouse	11.5323 / 7.27034	19.1097	0.3767	9.0700e-003	31.2296
Single Family Housing	3.64863 / 2.30022	6.0460	0.1192	2.8700e-003	9.8805
Total		28.0707	0.5533	0.0133	45.8739

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.40733 / 0.887228	2.3320	0.0460	1.1100e-003	3.8111
Condo/Townhouse	9.22581 / 5.81627	15.2877	0.3013	7.2600e-003	24.9837
Single Family Housing	2.9189 / 1.84018	4.8368	0.0953	2.3000e-003	7.9044
Total		22.4566	0.4426	0.0107	36.6992

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.0557	1.3626	0.0000	57.1196
Unmitigated	30.7410	1.8167	0.0000	76.1594

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	12.42	2.5212	0.1490	0.0000	6.2460
Condo/Townhouse	81.42	16.5275	0.9768	0.0000	40.9462
Single Family Housing	57.6	11.6923	0.6910	0.0000	28.9671
Total		30.7410	1.8167	0.0000	76.1594

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	9.315	1.8909	0.1118	0.0000	4.6845
Condo/Townhouse	61.065	12.3956	0.7326	0.0000	30.7097
Single Family Housing	43.2	8.7692	0.5183	0.0000	21.7254
Total		23.0557	1.3626	0.0000	57.1196

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output

Commercial and Industrial Construction 2021 (Average Annual)

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**Baldwin Zacharias Master Plan Comm & Ind Avg Year
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	136.50	1000sqft	3.13	136,500.00	0
Parking Lot	9.45	Acre	9.45	411,642.00	0
Regional Shopping Center	42.75	1000sqft	0.98	42,750.00	0
Unrefrigerated Warehouse-No Rail	209.05	1000sqft	4.80	209,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2021
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MWhr)	387.76	CH4 Intensity (lb/MWhr)	0.022	N2O Intensity (lb/MWhr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - TID 2030 Intensity Rate

Land Use - Annual Average Retail/Comm Construction and Mixed Use and Industrial

Construction Phase - Adjusted schedule to one year.

Off-road Equipment - Adjusted equipment amount to reflect a one year schedule while retaining default hours.

Architectural Coating - Rule 4601 Architectural Coatings compliance

Construction Off-road Equipment Mitigation - Tier 4 equipment mitigation

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings compliance

Energy Mitigation - 2019 Title 24 compliance

Water Mitigation -

Waste Mitigation -

Fleet Mix - SJVAPCD Residential Fleet Mix

Vehicle Trips - ITE 10th Ed Trip Gen Rates from TIS

Area Coating - Rule 4601 Architectural Coatings compliance

Energy Use - 2019 Title 24 Reduction

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	180.00
tblConstructionPhase	PhaseEndDate	4/21/2022	11/4/2021
tblConstructionPhase	PhaseEndDate	5/19/2022	12/2/2021
tblConstructionPhase	PhaseEndDate	6/16/2022	12/30/2021
tblConstructionPhase	PhaseStartDate	4/22/2022	11/5/2021
tblConstructionPhase	PhaseStartDate	5/20/2022	12/3/2021
tblEnergyUse	T24E	1.04	0.93

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tblEnergyUse	T24E	1.96	1.75
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	17.03	16.86
tblEnergyUse	T24NG	17.03	16.86
tblEnergyUse	T24NG	8.62	8.53
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	ST_TR	1.32	1.99
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	SU_TR	0.68	5.00
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	1.68	1.74
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	42.70	37.75

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.6261	0.5119
2	4-1-2021	6-30-2021	1.7125	1.1113
3	7-1-2021	9-30-2021	1.7313	1.1235
		Highest	1.7313	1.1235

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	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003
Energy	0.0379	0.3443	0.2892	2.0700e-003		0.0262	0.0262		0.0262	0.0262	0.0000	1,007.5658	1,007.5658	0.0431	0.0150	1,013.1221
Mobile	0.8526	7.6271	8.3435	0.0334	2.0261	0.0322	2.0583	0.5450	0.0304	0.5754	0.0000	3,091.1093	3,091.1093	0.2291	0.0000	3,096.8369
Waste						0.0000	0.0000		0.0000	0.0000	83.3603	0.0000	83.3603	4.9265	0.0000	206.5215
Water						0.0000	0.0000		0.0000	0.0000	26.3559	80.2584	106.6143	2.7116	0.0650	193.7592
Total	2.5595	7.9714	8.6363	0.0355	2.0261	0.0584	2.0845	0.5450	0.0566	0.6015	109.7162	4,178.9407	4,288.6568	7.9102	0.0800	4,510.2472

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003
Energy	0.0379	0.3443	0.2892	2.0700e-003		0.0262	0.0262		0.0262	0.0262	0.0000	1,007.5658	1,007.5658	0.0431	0.0150	1,013.1221
Mobile	0.8327	7.4043	7.9343	0.0315	1.8863	0.0303	1.9166	0.5074	0.0286	0.5360	0.0000	2,911.7715	2,911.7715	0.2246	0.0000	2,917.3859
Waste						0.0000	0.0000		0.0000	0.0000	66.6882	0.0000	66.6882	3.9412	0.0000	165.2172
Water						0.0000	0.0000		0.0000	0.0000	21.0847	64.2067	85.2914	2.1692	0.0520	155.0073
Total	2.5396	7.7487	8.2271	0.0335	1.8863	0.0565	1.9428	0.5074	0.0548	0.5621	87.7729	3,983.5512	4,071.3241	6.3781	0.0670	4,250.7401

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.78	2.79	4.74	5.47	6.90	3.27	6.80	6.90	3.20	6.55	20.00	4.68	5.07	19.37	16.24	5.75

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	2/25/2021	5	30	
3	Building Construction	Building Construction	2/26/2021	11/4/2021	5	180	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 9.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 582,450; Non-Residential Outdoor: 194,150; Striped Parking Area: 24,699 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
Building Construction	Cranes	2	7.00	231	0.29
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	332.00	131.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0903	0.0102	0.1006	0.0497	9.4000e-003	0.0591	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530

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3.2 Site Preparation - 2021

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	3.7000e-004	2.4000e-004	2.6400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6408	0.6408	2.0000e-005	0.0000	0.6412
Total	3.7000e-004	2.4000e-004	2.6400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6408	0.6408	2.0000e-005	0.0000	0.6412

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0167	0.1040	1.9000e-004		7.2000e-004	7.2000e-004		6.8000e-004	6.8000e-004	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	2.9000e-003	0.0167	0.1040	1.9000e-004	0.0407	7.2000e-004	0.0414	0.0223	6.8000e-004	0.0230	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530

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3.2 Site Preparation - 2021

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	3.7000e-004	2.4000e-004	2.6400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6408	0.6408	2.0000e-005	0.0000	0.6412
Total	3.7000e-004	2.4000e-004	2.6400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6408	0.6408	2.0000e-005	0.0000	0.6412

3.3 Grading - 2021

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	0.0629	0.6960	0.4632	9.3000e-004	0.1301	0.0298	0.1599	0.0540	0.0274	0.0814	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.0594	0.4945	9.3000e-004		2.1300e-003	2.1300e-003		2.0800e-003	2.0800e-003	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	0.0123	0.0594	0.4945	9.3000e-004	0.0586	2.1300e-003	0.0607	0.0243	2.0800e-003	0.0264	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

3.4 Building Construction - 2021

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					
Off-Road	0.3158	2.8824	2.7004	4.4600e-003		0.1562	0.1562		0.1472	0.1472	0.0000	383.3643	383.3643	0.0897	0.0000	385.6076
Total	0.3158	2.8824	2.7004	4.4600e-003		0.1562	0.1562		0.1472	0.1472	0.0000	383.3643	383.3643	0.0897	0.0000	385.6076

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3.4 Building Construction - 2021

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	0.0360	1.3097	0.2151	3.2800e-003	0.0780	3.5300e-003	0.0815	0.0225	3.3700e-003	0.0259	0.0000	312.3054	312.3054	0.0258	0.0000	312.9507
Worker	0.1238	0.0810	0.8759	2.3500e-003	0.2387	1.7800e-003	0.2405	0.0635	1.6400e-003	0.0651	0.0000	212.7352	212.7352	6.1800e-003	0.0000	212.8897
Total	0.1598	1.3908	1.0910	5.6300e-003	0.3167	5.3100e-003	0.3221	0.0860	5.0100e-003	0.0910	0.0000	525.0406	525.0406	0.0320	0.0000	525.8404

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					
Off-Road	0.1619	1.3714	2.7869	4.4600e-003		0.0648	0.0648		0.0617	0.0617	0.0000	383.3639	383.3639	0.0897	0.0000	385.6071
Total	0.1619	1.3714	2.7869	4.4600e-003		0.0648	0.0648		0.0617	0.0617	0.0000	383.3639	383.3639	0.0897	0.0000	385.6071

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3.4 Building Construction - 2021

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	0.0360	1.3097	0.2151	3.2800e-003	0.0780	3.5300e-003	0.0815	0.0225	3.3700e-003	0.0259	0.0000	312.3054	312.3054	0.0258	0.0000	312.9507
Worker	0.1238	0.0810	0.8759	2.3500e-003	0.2387	1.7800e-003	0.2405	0.0635	1.6400e-003	0.0651	0.0000	212.7352	212.7352	6.1800e-003	0.0000	212.8897
Total	0.1598	1.3908	1.0910	5.6300e-003	0.3167	5.3100e-003	0.3221	0.0860	5.0100e-003	0.0910	0.0000	525.0406	525.0406	0.0320	0.0000	525.8404

3.5 Paving - 2021

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					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0249	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

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3.5 Paving - 2021

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	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687
Total	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0152	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

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3.5 Paving - 2021

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	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687
Total	6.2000e-004	4.1000e-004	4.4000e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0687

3.6 Architectural Coating - 2021

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					
Archit. Coating	1.2557					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.2579	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.6 Architectural Coating - 2021

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	2.7300e-003	1.7900e-003	0.0194	5.0000e-005	5.2700e-003	4.0000e-005	5.3100e-003	1.4000e-003	4.0000e-005	1.4400e-003	0.0000	4.6990	4.6990	1.4000e-004	0.0000	4.7024
Total	2.7300e-003	1.7900e-003	0.0194	5.0000e-005	5.2700e-003	4.0000e-005	5.3100e-003	1.4000e-003	4.0000e-005	1.4400e-003	0.0000	4.6990	4.6990	1.4000e-004	0.0000	4.7024

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					
Archit. Coating	1.2557					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.2560	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.6 Architectural Coating - 2021

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	2.7300e-003	1.7900e-003	0.0194	5.0000e-005	5.2700e-003	4.0000e-005	5.3100e-003	1.4000e-003	4.0000e-005	1.4400e-003	0.0000	4.6990	4.6990	1.4000e-004	0.0000	4.7024
Total	2.7300e-003	1.7900e-003	0.0194	5.0000e-005	5.2700e-003	4.0000e-005	5.3100e-003	1.4000e-003	4.0000e-005	1.4400e-003	0.0000	4.6990	4.6990	1.4000e-004	0.0000	4.7024

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin Zacharias Master Plan Comm & Ind Avg Year - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8327	7.4043	7.9343	0.0315	1.8863	0.0303	1.9166	0.5074	0.0286	0.5360	0.0000	2,911.7715	2,911.7715	0.2246	0.0000	2,917.3859
Unmitigated	0.8526	7.6271	8.3435	0.0334	2.0261	0.0322	2.0583	0.5450	0.0304	0.5754	0.0000	3,091.1093	3,091.1093	0.2291	0.0000	3,096.8369

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	363.75	31.36	12.54	776,855	723,252
General Light Industry	677.04	271.64	682.50	1,809,820	1,684,942
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,613.81	1,971.63	902.03	2,740,846	2,551,727
Total	2,654.60	2,274.62	1,597.07	5,327,520	4,959,921

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.509246	0.034164	0.173036	0.129334	0.024846	0.005682	0.027468	0.086660	0.001831	0.001147	0.004743	0.000856	0.000987
General Light Industry	0.509246	0.034164	0.173036	0.129334	0.024846	0.005682	0.027468	0.086660	0.001831	0.001147	0.004743	0.000856	0.000987
Parking Lot	0.509246	0.034164	0.173036	0.129334	0.024846	0.005682	0.027468	0.086660	0.001831	0.001147	0.004743	0.000856	0.000987
Regional Shopping Center	0.509246	0.034164	0.173036	0.129334	0.024846	0.005682	0.027468	0.086660	0.001831	0.001147	0.004743	0.000856	0.000987

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	632.7804	632.7804	0.0359	8.1600e-003	636.1095
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	632.7804	632.7804	0.0359	8.1600e-003	636.1095
NaturalGas Mitigated	0.0379	0.3443	0.2892	2.0700e-003		0.0262	0.0262		0.0262	0.0262	0.0000	374.7854	374.7854	7.1800e-003	6.8700e-003	377.0126
NaturalGas Unmitigated	0.0379	0.3443	0.2892	2.0700e-003		0.0262	0.0262		0.0262	0.0262	0.0000	374.7854	374.7854	7.1800e-003	6.8700e-003	377.0126

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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 Light Industry	2.82555e+006	0.0152	0.1385	0.1164	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.7821	150.7821	2.8900e-003	2.7600e-003	151.6781
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	0.0000
Regional Shopping Center	453578	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.2046	24.2046	4.6000e-004	4.4000e-004	24.3485
Unrefrigerated Warehouse-No Rail	3.74409e+006	0.0202	0.1835	0.1542	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.7987	199.7987	3.8300e-003	3.6600e-003	200.9860
Total		0.0379	0.3443	0.2892	2.0600e-003		0.0262	0.0262		0.0262	0.0262	0.0000	374.7854	374.7854	7.1800e-003	6.8600e-003	377.0126

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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	tons/yr										MT/yr					
General Light Industry	2.82555e+006	0.0152	0.1385	0.1164	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.7821	150.7821	2.8900e-003	2.7600e-003	151.6781
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	0.0000
Regional Shopping Center	453578	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.2046	24.2046	4.6000e-004	4.4000e-004	24.3485
Unrefrigerated Warehouse-No Rail	3.74409e+006	0.0202	0.1835	0.1542	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.7987	199.7987	3.8300e-003	3.6600e-003	200.9860
Total		0.0379	0.3443	0.2892	2.0600e-003		0.0262	0.0262		0.0262	0.0262	0.0000	374.7854	374.7854	7.1800e-003	6.8600e-003	377.0126

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.17527e+006	206.7115	0.0117	2.6700e-003	207.7990
Parking Lot	144075	25.3406	1.4400e-003	3.3000e-004	25.4739
Regional Shopping Center	338580	59.5511	3.3800e-003	7.7000e-004	59.8644
Unrefrigerated Warehouse-No Rail	1.93977e+006	341.1773	0.0194	4.4000e-003	342.9722
Total		632.7805	0.0359	8.1700e-003	636.1095

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.17527e+006	206.7115	0.0117	2.6700e-003	207.7990
Parking Lot	144075	25.3406	1.4400e-003	3.3000e-004	25.4739
Regional Shopping Center	338580	59.5511	3.3800e-003	7.7000e-004	59.8644
Unrefrigerated Warehouse-No Rail	1.93977e+006	341.1773	0.0194	4.4000e-003	342.9722
Total		632.7805	0.0359	8.1700e-003	636.1095

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003
Unmitigated	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003

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	0.1256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5431					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003
Total	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5431					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003
Total	1.6690	3.0000e-005	3.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1100e-003	7.1100e-003	2.0000e-005	0.0000	7.5800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.2914	2.1692	0.0520	155.0073
Unmitigated	106.6143	2.7116	0.0650	193.7592

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	31.5656 / 0	40.0558	1.0303	0.0247	73.1654
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.1666 / 1.94082	5.2131	0.1034	2.4900e-003	8.5409
Unrefrigerated Warehouse-No Rail	48.3428 / 0	61.3455	1.5779	0.0378	112.0529
Total		106.6143	2.7116	0.0650	193.7592

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	25.2525 / 0	32.0446	0.8242	0.0197	58.5323
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.53328 / 1.55266	4.1705	0.0827	1.9900e-003	6.8327
Unrefrigerated Warehouse-No Rail	38.6743 / 0	49.0764	1.2623	0.0302	89.6423
Total		85.2914	2.1693	0.0520	155.0073

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	66.6882	3.9412	0.0000	165.2172
Unmitigated	83.3603	4.9265	0.0000	206.5215

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	169.26	34.3583	2.0305	0.0000	85.1211
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	44.89	9.1123	0.5385	0.0000	22.5753
Unrefrigerated Warehouse-No Rail	196.51	39.8898	2.3574	0.0000	98.8252
Total		83.3603	4.9265	0.0000	206.5215

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	135.408	27.4866	1.6244	0.0000	68.0969
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	35.912	7.2898	0.4308	0.0000	18.0602
Unrefrigerated Warehouse-No Rail	157.208	31.9118	1.8859	0.0000	79.0601
Total		66.6882	3.9412	0.0000	165.2172

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

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Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Elementary School Construction (2022)

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

**Baldwin Zacharias MP Elementary School
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	0.96	41,801.69	0
Parking Lot	2.00	Acre	2.00	87,120.00	0
Other Non-Asphalt Surfaces	11.04	Acre	11.04	480,902.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

Project Characteristics - PG&E Intensity Factor for 2020

Land Use -

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition Trip Gen.

Fleet Mix - SJVAPCD Residential Fleet Mix

Area Coating - Rule 4601 Architectural Coatings

Construction Off-road Equipment Mitigation - Tier 4 Equipment Mitigation

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Energy Use - 2019 Title 24 reduces non-residential energy use by 10.7% for electricity and 1% for NG

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	12/31/2020	6/2/2022
tblConstructionPhase	PhaseEndDate	12/31/2020	4/7/2022
tblConstructionPhase	PhaseEndDate	12/31/2020	2/11/2021
tblConstructionPhase	PhaseEndDate	12/31/2020	5/5/2022
tblConstructionPhase	PhaseStartDate	1/1/2021	5/6/2022
tblConstructionPhase	PhaseStartDate	1/1/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/1/2021	4/8/2022
tblEnergyUse	T24E	2.14	1.91

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tblEnergyUse	T24NG	23.19	22.96
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.52	0.53
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.3000e-003
tblFleetMix	LHD2	5.3520e-003	9.0000e-004
tblFleetMix	MCY	4.6330e-003	2.5000e-003
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MH	9.1100e-004	1.8000e-003
tblFleetMix	MHD	0.03	8.6000e-003
tblFleetMix	OBUS	1.8370e-003	0.00
tblFleetMix	SBUS	8.4500e-004	7.0000e-004
tblFleetMix	UBUS	1.1190e-003	4.4000e-003
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	WD_TR	1.29	1.89

2.0 Emissions Summary

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.3202	0.3348
2	4-1-2021	6-30-2021	1.0546	0.5095
3	7-1-2021	9-30-2021	1.0662	0.5151
4	10-1-2021	12-31-2021	1.0716	0.5206
5	1-1-2022	3-31-2022	0.9597	0.4853
6	4-1-2022	6-30-2022	0.4641	0.3053
		Highest	1.3202	0.5206

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	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003
Energy	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	96.8467	96.8467	4.2000e-003	1.7300e-003	97.4674
Mobile	0.2163	0.7128	2.2554	6.2700e-003	0.5581	6.4900e-003	0.5646	0.1494	6.0700e-003	0.1555	0.0000	574.7529	574.7529	0.0340	0.0000	575.6023
Waste						0.0000	0.0000		0.0000	0.0000	18.5229	0.0000	18.5229	1.0947	0.0000	45.8898
Water						0.0000	0.0000		0.0000	0.0000	0.3846	2.2978	2.6823	0.0397	9.7000e-004	3.9638
Total	0.4467	0.7638	2.3030	6.5800e-003	0.5581	0.0104	0.5685	0.1494	9.9600e-003	0.1594	18.9075	673.9065	692.8140	1.1725	2.7000e-003	722.9330

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003
Energy	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	96.8467	96.8467	4.2000e-003	1.7300e-003	97.4674
Mobile	0.2126	0.6868	2.1423	5.8700e-003	0.5196	6.1000e-003	0.5257	0.1391	5.7000e-003	0.1448	0.0000	538.1889	538.1889	0.0325	0.0000	539.0015
Waste						0.0000	0.0000		0.0000	0.0000	13.8922	0.0000	13.8922	0.8210	0.0000	34.4173
Water						0.0000	0.0000		0.0000	0.0000	0.3076	1.8382	2.1458	0.0317	7.8000e-004	3.1711
Total	0.4431	0.7379	2.1898	6.1800e-003	0.5196	9.9900e-003	0.5296	0.1391	9.5900e-003	0.1487	14.1998	636.8829	651.0828	0.8895	2.5100e-003	674.0670

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.82	3.39	4.91	6.08	6.90	3.76	6.84	6.90	3.71	6.70	24.90	5.49	6.02	24.14	7.04	6.76

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	12/31/2020	5	10	
2	Grading	Grading	1/1/2021	2/11/2021	5	30	
3	Building Construction	Building Construction	2/12/2021	4/7/2022	5	300	
4	Paving	Paving	4/8/2022	5/5/2022	5	20	
5	Architectural Coating	Architectural Coating	5/6/2022	6/2/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 62,703; Non-Residential Outdoor: 20,901; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	256.00	100.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.3 Grading - 2021

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	0.0629	0.6960	0.4632	9.3000e-004	0.1301	0.0298	0.1599	0.0540	0.0274	0.0814	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.0495	0.4950	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	0.0114	0.0495	0.4950	9.3000e-004	0.0586	1.5200e-003	0.0601	0.0243	1.5200e-003	0.0258	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

3.4 Building Construction - 2021

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					
Off-Road	0.2196	2.0134	1.9144	3.1100e-003		0.1107	0.1107		0.1041	0.1041	0.0000	267.5411	267.5411	0.0646	0.0000	269.1547
Total	0.2196	2.0134	1.9144	3.1100e-003		0.1107	0.1107		0.1041	0.1041	0.0000	267.5411	267.5411	0.0646	0.0000	269.1547

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3.4 Building Construction - 2021

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	0.0352	1.2831	0.2108	3.2200e-003	0.0764	3.4600e-003	0.0799	0.0221	3.3100e-003	0.0254	0.0000	305.9480	305.9480	0.0253	0.0000	306.5802
Worker	0.1225	0.0802	0.8667	2.3300e-003	0.2362	1.7600e-003	0.2380	0.0628	1.6200e-003	0.0644	0.0000	210.5139	210.5139	6.1100e-003	0.0000	210.6667
Total	0.1577	1.3633	1.0775	5.5500e-003	0.3127	5.2200e-003	0.3179	0.0849	4.9300e-003	0.0898	0.0000	516.4619	516.4619	0.0314	0.0000	517.2469

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					
Off-Road	0.0379	0.2581	2.0167	3.1100e-003		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	267.5407	267.5407	0.0646	0.0000	269.1544
Total	0.0379	0.2581	2.0167	3.1100e-003		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	267.5407	267.5407	0.0646	0.0000	269.1544

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3.4 Building Construction - 2021

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	0.0352	1.2831	0.2108	3.2200e-003	0.0764	3.4600e-003	0.0799	0.0221	3.3100e-003	0.0254	0.0000	305.9480	305.9480	0.0253	0.0000	306.5802
Worker	0.1225	0.0802	0.8667	2.3300e-003	0.2362	1.7600e-003	0.2380	0.0628	1.6200e-003	0.0644	0.0000	210.5139	210.5139	6.1100e-003	0.0000	210.6667
Total	0.1577	1.3633	1.0775	5.5500e-003	0.3127	5.2200e-003	0.3179	0.0849	4.9300e-003	0.0898	0.0000	516.4619	516.4619	0.0314	0.0000	517.2469

3.4 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	tons/yr										MT/yr					
Off-Road	0.0589	0.5387	0.5645	9.3000e-004		0.0279	0.0279		0.0263	0.0263	0.0000	79.9452	79.9452	0.0192	0.0000	80.4240
Total	0.0589	0.5387	0.5645	9.3000e-004		0.0279	0.0279		0.0263	0.0263	0.0000	79.9452	79.9452	0.0192	0.0000	80.4240

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3.4 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	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	9.7900e-003	0.3640	0.0583	9.5000e-004	0.0228	9.0000e-004	0.0237	6.5900e-003	8.6000e-004	7.4500e-003	0.0000	90.5222	90.5222	7.2800e-003	0.0000	90.7043
Worker	0.0339	0.0214	0.2361	6.7000e-004	0.0706	5.1000e-004	0.0711	0.0188	4.7000e-004	0.0192	0.0000	60.6396	60.6396	1.6300e-003	0.0000	60.6805
Total	0.0437	0.3854	0.2943	1.6200e-003	0.0934	1.4100e-003	0.0948	0.0254	1.3300e-003	0.0267	0.0000	151.1619	151.1619	8.9100e-003	0.0000	151.3848

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					
Off-Road	0.0113	0.0771	0.6024	9.3000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	79.9451	79.9451	0.0192	0.0000	80.4239
Total	0.0113	0.0771	0.6024	9.3000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	79.9451	79.9451	0.0192	0.0000	80.4239

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3.4 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	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	9.7900e-003	0.3640	0.0583	9.5000e-004	0.0228	9.0000e-004	0.0237	6.5900e-003	8.6000e-004	7.4500e-003	0.0000	90.5222	90.5222	7.2800e-003	0.0000	90.7043
Worker	0.0339	0.0214	0.2361	6.7000e-004	0.0706	5.1000e-004	0.0711	0.0188	4.7000e-004	0.0192	0.0000	60.6396	60.6396	1.6300e-003	0.0000	60.6805
Total	0.0437	0.3854	0.2943	1.6200e-003	0.0934	1.4100e-003	0.0948	0.0254	1.3300e-003	0.0267	0.0000	151.1619	151.1619	8.9100e-003	0.0000	151.3848

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	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0137	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895

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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	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	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306
Total	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4200e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895

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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	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	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306
Total	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306

3.6 Architectural Coating - 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					
Archit. Coating	0.2444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2465	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 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	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	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040
Total	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040

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					
Archit. Coating	0.2444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2447	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 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	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	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040
Total	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2126	0.6868	2.1423	5.8700e-003	0.5196	6.1000e-003	0.5257	0.1391	5.7000e-003	0.1448	0.0000	538.1889	538.1889	0.0325	0.0000	539.0015
Unmitigated	0.2163	0.7128	2.2554	6.2700e-003	0.5581	6.4900e-003	0.5646	0.1494	6.0700e-003	0.1555	0.0000	574.7529	574.7529	0.0340	0.0000	575.6023

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	945.00	0.00	0.00	1,488,334	1,385,639
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	945.00	0.00	0.00	1,488,334	1,385,639

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.534300	0.203000	0.167300	0.054500	0.001300	0.000900	0.008600	0.020700	0.000000	0.004400	0.002500	0.000700	0.001800
Other Non-Asphalt Surfaces	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Parking Lot	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911

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	41.3469	41.3469	3.1400e-003	7.1000e-004	41.6378
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	41.3469	41.3469	3.1400e-003	7.1000e-004	41.6378
NaturalGas Mitigated	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
NaturalGas Unmitigated	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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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					
Elementary School	1.04003e+006	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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					
Elementary School	1.04003e+006	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	283833	37.3360	2.8300e-003	6.4000e-004	37.5986
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	4.0110	3.0000e-004	7.0000e-005	4.0392
Total		41.3469	3.1300e-003	7.1000e-004	41.6378

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	283833	37.3360	2.8300e-003	6.4000e-004	37.5986
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	4.0110	3.0000e-004	7.0000e-005	4.0392
Total		41.3469	3.1300e-003	7.1000e-004	41.6378

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003
Unmitigated	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003

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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	0.0244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4000e-004	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003
Total	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003

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	0.0244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4000e-004	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003
Total	0.2249	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7700e-003

7.0 Water Detail

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7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1458	0.0317	7.8000e-004	3.1711
Unmitigated	2.6823	0.0397	9.7000e-004	3.9638

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	1.21212 / 3.11688	2.6823	0.0397	9.7000e-004	3.9638
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.6823	0.0397	9.7000e-004	3.9638

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.969696 / 2.4935	2.1458	0.0317	7.8000e-004	3.1711
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.1458	0.0317	7.8000e-004	3.1711

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8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.8922	0.8210	0.0000	34.4173
Unmitigated	18.5229	1.0947	0.0000	45.8898

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		18.5229	1.0947	0.0000	45.8898

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	68.4375	13.8922	0.8210	0.0000	34.4173
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		13.8922	0.8210	0.0000	34.4173

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9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Middle School Construction (2024)

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**Baldwin Zacharias MP Middle School
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	900.00	Student	2.43	105,805.52	0
Other Non-Asphalt Surfaces	11.57	Acre	11.57	503,989.20	0
Parking Lot	2.00	Acre	2.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - PG&E Intensity Factor for 2020

Land Use - 16 acre site

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition Trip Gen.

Area Coating - Rule 4601 Architectural Coatings

Energy Use - 2019 Title 24 reduces non-residential energy use by 10.7% for electricity and 1% for NG

Construction Off-road Equipment Mitigation - Tier 4 Equipment Mitigation

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings Compliance

Energy Mitigation -

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Residential Fleet Mix 2024

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	65
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	23.19	22.96
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.53	0.53
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.02	9.0000e-004
tblFleetMix	LHD2	4.7610e-003	9.0000e-004

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tblFleetMix	MCY	4.4200e-003	2.5000e-003
tblFleetMix	MDV	0.11	5.6000e-003
tblFleetMix	MH	7.8100e-004	2.0000e-003
tblFleetMix	MHD	0.03	8.0000e-003
tblFleetMix	OBUS	1.8360e-003	0.00
tblFleetMix	SBUS	8.2200e-004	2.0000e-004
tblFleetMix	UBUS	1.0470e-003	4.3000e-003
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	WD_TR	1.62	2.13

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.0526	0.2499
2	4-1-2023	6-30-2023	0.8873	0.4520
3	7-1-2023	9-30-2023	0.8970	0.4569
4	10-1-2023	12-31-2023	0.9003	0.4602
5	1-1-2024	3-31-2024	0.8492	0.4477
6	4-1-2024	6-30-2024	0.7446	0.5582
		Highest	1.0526	0.5582

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	0.5381	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Energy	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	238.9903	238.9903	0.0102	4.2700e-003	240.5180
Mobile	0.3499	1.1176	3.6359	0.0112	1.1449	0.0107	1.1557	0.3053	9.9900e-003	0.3152	0.0000	1,033.3343	1,033.3343	0.0550	0.0000	1,034.7084
Waste						0.0000	0.0000		0.0000	0.0000	33.3413	0.0000	33.3413	1.9704	0.0000	82.6016
Water						0.0000	0.0000		0.0000	0.0000	0.6922	4.1360	4.8282	0.0714	1.7500e-003	7.1349
Total	0.9022	1.2468	3.7527	0.0120	1.1449	0.0206	1.1655	0.3053	0.0198	0.3251	34.0335	1,276.4768	1,310.5102	2.1070	6.0200e-003	1,364.9802

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4964	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Energy	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	238.9903	238.9903	0.0102	4.2700e-003	240.5180
Mobile	0.3439	1.0806	3.4495	0.0105	1.0659	0.0101	1.0760	0.2842	9.3800e-003	0.2936	0.0000	967.8849	967.8849	0.0525	0.0000	969.1962
Waste						0.0000	0.0000		0.0000	0.0000	25.0060	0.0000	25.0060	1.4778	0.0000	61.9512
Water						0.0000	0.0000		0.0000	0.0000	0.5538	3.3088	3.8625	0.0571	1.4000e-003	5.7079
Total	0.8545	1.2098	3.5663	0.0113	1.0659	0.0199	1.0859	0.2842	0.0192	0.3034	25.5597	1,210.2002	1,235.7599	1.5976	5.6700e-003	1,277.3906

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.28	2.97	4.97	5.91	6.90	3.16	6.83	6.90	3.08	6.66	24.90	5.19	5.70	24.18	5.81	6.42

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Paving	Paving	4/20/2024	5/17/2024	5	20	
5	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 13.57

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 158,708; Non-Residential Outdoor: 52,903; Striped Parking Area: 35,467 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	293.00	114.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

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3.2 Site Preparation - 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	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	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952
Total	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	2.3300e-003	0.0101	0.1043	1.9000e-004	0.0407	3.1000e-004	0.0410	0.0223	3.1000e-004	0.0227	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

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3.2 Site Preparation - 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	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	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952
Total	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1301	0.0214	0.1515	0.0540	0.0197	0.0736	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

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3.3 Grading - 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	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	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840
Total	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.0495	0.4950	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0114	0.0495	0.4950	9.3000e-004	0.0586	1.5200e-003	0.0601	0.0243	1.5200e-003	0.0258	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

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3.3 Grading - 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	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	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840
Total	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840

3.4 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	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

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3.4 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	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	0.0247	1.0377	0.1737	3.3800e-003	0.0830	1.0300e-003	0.0840	0.0240	9.9000e-004	0.0250	0.0000	320.9992	320.9992	0.0187	0.0000	321.4672
Worker	0.1149	0.0699	0.7858	2.3600e-003	0.2575	1.8100e-003	0.2593	0.0685	1.6700e-003	0.0701	0.0000	213.0152	213.0152	5.3200e-003	0.0000	213.1482
Total	0.1396	1.1076	0.9595	5.7400e-003	0.3405	2.8400e-003	0.3433	0.0924	2.6600e-003	0.0951	0.0000	534.0144	534.0144	0.0240	0.0000	534.6154

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					
Off-Road	0.0361	0.2458	1.9206	2.9600e-003		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.0361	0.2458	1.9206	2.9600e-003		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

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3.4 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	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	0.0247	1.0377	0.1737	3.3800e-003	0.0830	1.0300e-003	0.0840	0.0240	9.9000e-004	0.0250	0.0000	320.9992	320.9992	0.0187	0.0000	321.4672
Worker	0.1149	0.0699	0.7858	2.3600e-003	0.2575	1.8100e-003	0.2593	0.0685	1.6700e-003	0.0701	0.0000	213.0152	213.0152	5.3200e-003	0.0000	213.1482
Total	0.1396	1.1076	0.9595	5.7400e-003	0.3405	2.8400e-003	0.3433	0.0924	2.6600e-003	0.0951	0.0000	534.0144	534.0144	0.0240	0.0000	534.6154

3.4 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	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

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3.4 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	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	8.7100e-003	0.3743	0.0598	1.2200e-003	0.0302	3.7000e-004	0.0305	8.7100e-003	3.5000e-004	9.0700e-003	0.0000	115.8693	115.8693	6.8500e-003	0.0000	116.0405
Worker	0.0390	0.0228	0.2633	8.2000e-004	0.0936	6.4000e-004	0.0943	0.0249	5.9000e-004	0.0255	0.0000	74.4866	74.4866	1.7400e-003	0.0000	74.5301
Total	0.0477	0.3971	0.3231	2.0400e-003	0.1238	1.0100e-003	0.1248	0.0336	9.4000e-004	0.0346	0.0000	190.3558	190.3558	8.5900e-003	0.0000	190.5705

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					
Off-Road	0.0131	0.0894	0.6984	1.0800e-003		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0131	0.0894	0.6984	1.0800e-003		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

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3.4 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	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	8.7100e-003	0.3743	0.0598	1.2200e-003	0.0302	3.7000e-004	0.0305	8.7100e-003	3.5000e-004	9.0700e-003	0.0000	115.8693	115.8693	6.8500e-003	0.0000	116.0405
Worker	0.0390	0.0228	0.2633	8.2000e-004	0.0936	6.4000e-004	0.0943	0.0249	5.9000e-004	0.0255	0.0000	74.4866	74.4866	1.7400e-003	0.0000	74.5301
Total	0.0477	0.3971	0.3231	2.0400e-003	0.1238	1.0100e-003	0.1248	0.0336	9.4000e-004	0.0346	0.0000	190.3558	190.3558	8.5900e-003	0.0000	190.5705

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0125	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

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3.5 Paving - 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	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	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539
Total	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4200e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

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3.5 Paving - 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	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	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539
Total	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539

3.6 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	tons/yr										MT/yr					
Archit. Coating	0.4421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	0.4439	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569

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3.6 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	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	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519
Total	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519

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					
Archit. Coating	0.4421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	0.4424	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568

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3.6 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	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	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519
Total	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3439	1.0806	3.4495	0.0105	1.0659	0.0101	1.0760	0.2842	9.3800e-003	0.2936	0.0000	967.8849	967.8849	0.0525	0.0000	969.1962
Unmitigated	0.3499	1.1176	3.6359	0.0112	1.1449	0.0107	1.1557	0.3053	9.9900e-003	0.3152	0.0000	1,033.3343	1,033.3343	0.0550	0.0000	1,034.7084

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior High School	1,917.00	0.00	0.00	3,078,420	2,866,009
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,917.00	0.00	0.00	3,078,420	2,866,009

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior High School	0.527700	0.209000	0.167500	0.005600	0.000900	0.000900	0.008000	0.021400	0.000000	0.004300	0.002500	0.000200	0.002000
Other Non-Asphalt Surfaces	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Parking Lot	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781

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	98.5132	98.5132	7.4700e-003	1.7000e-003	99.2061
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	98.5132	98.5132	7.4700e-003	1.7000e-003	99.2061
NaturalGas Mitigated	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
NaturalGas Unmitigated	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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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					
Junior High School	2.63244e+006	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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					
Junior High School	2.63244e+006	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	718419	94.5022	7.1700e-003	1.6300e-003	95.1670
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	4.0110	3.0000e-004	7.0000e-005	4.0392
Total		98.5132	7.4700e-003	1.7000e-003	99.2062

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	718419	94.5022	7.1700e-003	1.6300e-003	95.1670
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	4.0110	3.0000e-004	7.0000e-005	4.0392
Total		98.5132	7.4700e-003	1.7000e-003	99.2062

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4964	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Unmitigated	0.5381	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

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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	0.0859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Total	0.5381	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

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	0.0442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Total	0.4964	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

7.0 Water Detail

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7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.8625	0.0571	1.4000e-003	5.7079
Unmitigated	4.8282	0.0714	1.7500e-003	7.1349

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	2.18182 / 5.61038	4.8282	0.0714	1.7500e-003	7.1349
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.8282	0.0714	1.7500e-003	7.1349

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	1.74545 / 4.48831	3.8625	0.0571	1.4000e-003	5.7079
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.8625	0.0571	1.4000e-003	5.7079

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8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.0060	1.4778	0.0000	61.9512
Unmitigated	33.3413	1.9704	0.0000	82.6016

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	164.25	33.3413	1.9704	0.0000	82.6016
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		33.3413	1.9704	0.0000	82.6016

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	123.188	25.0060	1.4778	0.0000	61.9512
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		25.0060	1.4778	0.0000	61.9512

Baldwin Zacharias MP Middle School - Stanislaus County, Annual

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output
Parks Construction (2021)

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	62.47	Acre	62.47	2,721,193.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2021
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - TID Intensity Factor 2030

Land Use - 500 sf for restrooms

Construction Phase - Restroom Construction for parks. Limited site prep and grading required.

Off-road Equipment - Limited equipment required for restroom construction.

Grading -

Architectural Coating - Rule 4601 Architectural Coatings compliance.

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Water Mitigation -

Waste Mitigation -

Fleet Mix - SJVAPCD Residential Fleet Mix

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	250.00	65.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	750.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	2.00
tblConstructionPhase	NumDays	1,110.00	30.00
tblConstructionPhase	NumDays	110.00	30.00
tblConstructionPhase	NumDays	75.00	10.00
tblConstructionPhase	NumDays	40.00	20.00
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.6820e-003	9.0000e-004
tblFleetMix	MCY	4.7430e-003	2.6000e-003

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tblFleetMix	MDV	0.13	0.05
tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	SBUS	8.5600e-004	8.0000e-004
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	4-1-2021	6-30-2021	1.5087	0.3135
3	7-1-2021	9-30-2021	0.7488	0.5921
		Highest	1.5087	0.5921

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	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1500	0.4876	1.5565	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	0.0000	372.1054	372.1054	0.0230	0.0000	372.6809
Waste						0.0000	0.0000		0.0000	0.0000	1.0901	0.0000	1.0901	0.0644	0.0000	2.7006
Water						0.0000	0.0000		0.0000	0.0000	0.0000	45.8201	45.8201	2.6000e-003	5.9000e-004	46.0611
Total	0.1780	0.4876	1.5571	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	1.0901	417.9265	419.0166	0.0900	5.9000e-004	421.4438

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1500	0.4876	1.5565	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	0.0000	372.1054	372.1054	0.0230	0.0000	372.6809
Waste						0.0000	0.0000		0.0000	0.0000	0.8176	0.0000	0.8176	0.0483	0.0000	2.0254
Water						0.0000	0.0000		0.0000	0.0000	0.0000	36.6560	36.6560	2.0800e-003	4.7000e-004	36.8489
Total	0.1780	0.4876	1.5571	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	0.8176	408.7625	409.5801	0.0734	4.7000e-004	411.5564

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	2.19	2.25	18.46	20.34	2.35

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/9/2021	5/6/2021	5	20	
2	Grading	Grading	5/7/2021	6/17/2021	5	30	
3	Building Construction	Building Construction	6/18/2021	7/29/2021	5	30	
4	Architectural Coating	Architectural Coating	7/13/2021	7/14/2021	5	2	
5	Paving	Paving	7/30/2021	8/12/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 65; Non-Residential Outdoor: 65; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	1,143.00	446.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	229.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061

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3.2 Site Preparation - 2021

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	7.5000e-004	4.9000e-004	5.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2815	1.2815	4.0000e-005	0.0000	1.2825
Total	7.5000e-004	4.9000e-004	5.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2815	1.2815	4.0000e-005	0.0000	1.2825

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					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	7.9000e-004	0.2096	3.8000e-004		-0.0006	-0.0006		-0.0005	-0.0005	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	2.9800e-003	7.9000e-004	0.2096	3.8000e-004	0.0813	-0.0006	0.0807	0.0447	-0.0005	0.0442	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060

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3.2 Site Preparation - 2021

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	7.5000e-004	4.9000e-004	5.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2815	1.2815	4.0000e-005	0.0000	1.2825
Total	7.5000e-004	4.9000e-004	5.2800e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2815	1.2815	4.0000e-005	0.0000	1.2825

3.3 Grading - 2021

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	0.0629	0.6960	0.4632	9.3000e-004	0.1301	0.0298	0.1599	0.0540	0.0274	0.0814	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.0350	0.4957	9.3000e-004		6.3000e-004	6.3000e-004		7.0000e-004	7.0000e-004	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	0.0102	0.0350	0.4957	9.3000e-004	0.0586	6.3000e-004	0.0592	0.0243	7.0000e-004	0.0250	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

3.4 Building Construction - 2021

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					
Off-Road	9.7600e-003	0.0901	0.1025	1.6000e-004		5.2400e-003	5.2400e-003		5.0200e-003	5.0200e-003	0.0000	14.0752	14.0752	2.2400e-003	0.0000	14.1313
Total	9.7600e-003	0.0901	0.1025	1.6000e-004		5.2400e-003	5.2400e-003		5.0200e-003	5.0200e-003	0.0000	14.0752	14.0752	2.2400e-003	0.0000	14.1313

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3.4 Building Construction - 2021

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	0.0204	0.7432	0.1221	1.8600e-003	0.0443	2.0000e-003	0.0463	0.0128	1.9100e-003	0.0147	0.0000	177.2115	177.2115	0.0147	0.0000	177.5777
Worker	0.0710	0.0465	0.5026	1.3500e-003	0.1370	1.0200e-003	0.1380	0.0364	9.4000e-004	0.0374	0.0000	122.0664	122.0664	3.5400e-003	0.0000	122.1551
Total	0.0914	0.7897	0.6246	3.2100e-003	0.1813	3.0200e-003	0.1843	0.0492	2.8500e-003	0.0521	0.0000	299.2779	299.2779	0.0182	0.0000	299.7327

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					
Off-Road	-0.0021	-0.0316	0.1091	1.6000e-004		-0.0026	-0.0026		-0.0024	-0.0024	0.0000	14.0752	14.0752	2.2400e-003	0.0000	14.1313
Total	-0.0021	-0.0316	0.1091	1.6000e-004		-0.0026	-0.0026		-0.0024	-0.0024	0.0000	14.0752	14.0752	2.2400e-003	0.0000	14.1313

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3.4 Building Construction - 2021

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	0.0204	0.7432	0.1221	1.8600e-003	0.0443	2.0000e-003	0.0463	0.0128	1.9100e-003	0.0147	0.0000	177.2115	177.2115	0.0147	0.0000	177.5777
Worker	0.0710	0.0465	0.5026	1.3500e-003	0.1370	1.0200e-003	0.1380	0.0364	9.4000e-004	0.0374	0.0000	122.0664	122.0664	3.5400e-003	0.0000	122.1551
Total	0.0914	0.7897	0.6246	3.2100e-003	0.1813	3.0200e-003	0.1843	0.0492	2.8500e-003	0.0521	0.0000	299.2779	299.2779	0.0182	0.0000	299.7327

3.5 Architectural Coating - 2021

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					
Archit. Coating	2.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	4.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558

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3.5 Architectural Coating - 2021

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	9.5000e-004	6.2000e-004	6.7100e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6304	1.6304	5.0000e-005	0.0000	1.6316
Total	9.5000e-004	6.2000e-004	6.7100e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6304	1.6304	5.0000e-005	0.0000	1.6316

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					
Archit. Coating	2.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-005	1.3000e-004	1.8300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	2.3000e-004	1.3000e-004	1.8300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558

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3.5 Architectural Coating - 2021

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	9.5000e-004	6.2000e-004	6.7100e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6304	1.6304	5.0000e-005	0.0000	1.6316
Total	9.5000e-004	6.2000e-004	6.7100e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6304	1.6304	5.0000e-005	0.0000	1.6316

3.6 Paving - 2021

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					
Off-Road	6.2800e-003	0.0646	0.0733	1.1000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.2800e-003	0.0646	0.0733	1.1000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927

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3.6 Paving - 2021

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	3.1000e-004	2.0000e-004	2.2000e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5340	0.5340	2.0000e-005	0.0000	0.5344
Total	3.1000e-004	2.0000e-004	2.2000e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5340	0.5340	2.0000e-005	0.0000	0.5344

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					
Off-Road	1.4000e-003	6.0800e-003	0.0865	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.4000e-003	6.0800e-003	0.0865	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927

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3.6 Paving - 2021

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	3.1000e-004	2.0000e-004	2.2000e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5340	0.5340	2.0000e-005	0.0000	0.5344
Total	3.1000e-004	2.0000e-004	2.2000e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5340	0.5340	2.0000e-005	0.0000	0.5344

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Baldwin Zacharias MP Parks - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1500	0.4876	1.5565	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	0.0000	372.1054	372.1054	0.0230	0.0000	372.6809
Unmitigated	0.1500	0.4876	1.5565	4.0600e-003	0.3498	4.3200e-003	0.3541	0.0937	4.0400e-003	0.0977	0.0000	372.1054	372.1054	0.0230	0.0000	372.6809

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	118.07	1,421.19	1045.75	932,407	932,407
Total	118.07	1,421.19	1,045.75	932,407	932,407

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000800	0.001600

5.0 Energy Detail

Historical Energy Use: N

Baldwin Zacharias MP Parks - Stanislaus County, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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					
City Park	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	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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Baldwin Zacharias MP Parks - Stanislaus County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003
Unmitigated	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003

Baldwin Zacharias MP Parks - Stanislaus County, Annual

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	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003
Total	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003

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	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003
Total	0.0279	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.1900e-003

7.0 Water Detail

Baldwin Zacharias MP Parks - Stanislaus County, Annual

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	36.6560	2.0800e-003	4.7000e-004	36.8489
Unmitigated	45.8201	2.6000e-003	5.9000e-004	46.0611

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 74.4318	45.8201	2.6000e-003	5.9000e-004	46.0611
Total		45.8201	2.6000e-003	5.9000e-004	46.0611

Baldwin Zacharias MP Parks - Stanislaus County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 59.5455	36.6560	2.0800e-003	4.7000e-004	36.8489
Total		36.6560	2.0800e-003	4.7000e-004	36.8489

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Baldwin Zacharias MP Parks - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8176	0.0483	0.0000	2.0254
Unmitigated	1.0901	0.0644	0.0000	2.7006

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	5.37	1.0901	0.0644	0.0000	2.7006
Total		1.0901	0.0644	0.0000	2.7006

Baldwin Zacharias MP Parks - Stanislaus County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.0275	0.8176	0.0483	0.0000	2.0254
Total		0.8176	0.0483	0.0000	2.0254

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Baldwin Zacharias MP Parks - Stanislaus County, Annual

CalEEMod Output

Residential Operations 2040 (Annual)

Baldwin Zacharias Master Plan Residential Buildout - Stanislaus County, Annual

**Baldwin Zacharias Master Plan Residential Buildout
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	609.00	Dwelling Unit	30.50	609,000.00	1742
Condo/Townhouse	4,041.00	Dwelling Unit	526.50	4,041,000.00	11557
Single Family Housing	831.00	Dwelling Unit	269.40	1,495,800.00	2377

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2040
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias Master Plan Residential Buildout - Stanislaus County, Annual

Project Characteristics - TID Intensity Factors

Land Use - Residential Only. Condo/Townhouse includes single family on small lots (MDR). Single Family is LDR.

Construction Phase - Ops only run

Off-road Equipment - Ops only run.

Vehicle Trips - ITE 10th Ed Rates from Project TIS

Area Coating - Rule 4601 Architectural Coatings

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings Compliance

Energy Mitigation -

Water Mitigation -

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Fleet Mix for 2040

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	65
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblFleetMix	HHD	0.09	0.02
tblFleetMix	HHD	0.09	0.02
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT2	0.18	0.17

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tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD2	3.3080e-003	1.0000e-003
tblFleetMix	LHD2	3.3080e-003	1.0000e-003
tblFleetMix	LHD2	3.3080e-003	1.0000e-003
tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MDV	0.09	0.06
tblFleetMix	MDV	0.09	0.06
tblFleetMix	MDV	0.09	0.06
tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	UBUS	8.7500e-004	4.3000e-003

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tblFleetMix	UBUS	8.7500e-004	4.3000e-003
tblFleetMix	UBUS	8.7500e-004	4.3000e-003
tblLandUse	LotAcreage	38.06	30.50
tblLandUse	LotAcreage	252.56	526.50
tblLandUse	LotAcreage	269.81	269.40
tblOffRoadEquipment	UsageHours	6.00	0.10
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	7.16	4.91
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	6.07	4.09
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	6.59	5.44
tblVehicleTrips	WD_TR	5.81	7.32
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

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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					
2021	15.6021	0.2613	2.7926	7.5000e-003	0.7601	5.8800e-003	0.7660	0.2020	5.4300e-003	0.2075	0.0000	677.8799	677.8799	0.0197	0.0000	678.3726
2022	15.5135	0.2327	2.5372	7.2100e-003	0.7572	5.6500e-003	0.7628	0.2013	5.2100e-003	0.2065	0.0000	651.2347	651.2347	0.0176	0.0000	651.6736
2023	15.4875	0.2084	2.3145	6.9400e-003	0.7572	5.4800e-003	0.7627	0.2013	5.0500e-003	0.2063	0.0000	626.9090	626.9090	0.0157	0.0000	627.3011
2024	12.4312	0.1506	1.7148	5.3600e-003	0.6087	4.2900e-003	0.6130	0.1618	3.9600e-003	0.1657	0.0000	484.6105	484.6105	0.0113	0.0000	484.8940
Maximum	15.6021	0.2613	2.7926	7.5000e-003	0.7601	5.8800e-003	0.7660	0.2020	5.4300e-003	0.2075	0.0000	677.8799	677.8799	0.0197	0.0000	678.3726

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2.1 Overall Construction

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					
2021	15.6021	0.2613	2.7926	7.5000e-003	0.7601	5.8800e-003	0.7660	0.2020	5.4300e-003	0.2075	0.0000	677.8799	677.8799	0.0197	0.0000	678.3726
2022	15.5135	0.2327	2.5372	7.2100e-003	0.7572	5.6500e-003	0.7628	0.2013	5.2100e-003	0.2065	0.0000	651.2347	651.2347	0.0176	0.0000	651.6736
2023	15.4875	0.2084	2.3145	6.9400e-003	0.7572	5.4800e-003	0.7627	0.2013	5.0500e-003	0.2063	0.0000	626.9090	626.9090	0.0157	0.0000	627.3011
2024	12.4312	0.1506	1.7148	5.3600e-003	0.6087	4.2900e-003	0.6130	0.1618	3.9600e-003	0.1657	0.0000	484.6105	484.6105	0.0113	0.0000	484.8940
Maximum	15.6021	0.2613	2.7926	7.5000e-003	0.7601	5.8800e-003	0.7660	0.2020	5.4300e-003	0.2075	0.0000	677.8799	677.8799	0.0197	0.0000	678.3726

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	3.9198	3.9198
2	4-1-2021	6-30-2021	3.9587	3.9587
3	7-1-2021	9-30-2021	4.0022	4.0022
4	10-1-2021	12-31-2021	4.0069	4.0069
5	1-1-2022	3-31-2022	3.9047	3.9047
6	4-1-2022	6-30-2022	3.9441	3.9441
7	7-1-2022	9-30-2022	3.9875	3.9875
8	10-1-2022	12-31-2022	3.9915	3.9915

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9	1-1-2023	3-31-2023	3.8913	3.8913
10	4-1-2023	6-30-2023	3.9311	3.9311
11	7-1-2023	9-30-2023	3.9743	3.9743
12	10-1-2023	12-31-2023	3.9777	3.9777
13	1-1-2024	3-31-2024	3.9227	3.9227
14	4-1-2024	6-30-2024	3.9198	3.9198
15	7-1-2024	9-30-2024	3.9628	3.9628
		Highest	4.0069	4.0069

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	44.7955	5.0130	194.3383	0.5143		25.3421	25.3421		25.3421	25.3421	3,340.906 2	2,440.887 7	5,781.793 9	15.7268	0.0435	6,187.937 2
Energy	0.5550	4.7431	2.0183	0.0303		0.3835	0.3835		0.3835	0.3835	0.0000	11,189.377 7	11,189.377 7	0.4285	0.1742	11,251.988 4
Mobile	4.7870	26.6440	62.8759	0.3523	44.3665	0.1562	44.5227	11.8787	0.1450	12.0237	0.0000	32,624.80 68	32,624.80 68	1.3050	0.0000	32,657.43 05
Waste						0.0000	0.0000		0.0000	0.0000	607.9011	0.0000	607.9011	35.9259	0.0000	1,506.049 2
Water						0.0000	0.0000		0.0000	0.0000	113.2943	478.4577	591.7519	11.6636	0.2809	967.0580
Total	50.1376	36.4001	259.2325	0.8969	44.3665	25.8818	70.2483	11.8787	25.8706	37.7493	4,062.101 6	46,733.52 98	50,795.63 14	65.0497	0.4986	52,570.46 33

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	27.9538	2.5179	41.3907	0.0152		0.3915	0.3915		0.3915	0.3915	0.0000	2,440.8877	2,440.8877	0.1088	0.0435	2,456.5795
Energy	0.5239	4.4769	1.9051	0.0286		0.3620	0.3620		0.3620	0.3620	0.0000	10,830.2741	10,830.2741	0.4197	0.1679	10,890.7854
Mobile	4.6545	25.9471	59.2444	0.3297	41.3052	0.1467	41.4519	11.0591	0.1362	11.1953	0.0000	30,534.9569	30,534.9569	1.2502	0.0000	30,566.2108
Waste						0.0000	0.0000		0.0000	0.0000	455.9258	0.0000	455.9258	26.9444	0.0000	1,129.5369
Water						0.0000	0.0000		0.0000	0.0000	90.6354	382.7661	473.4016	9.3308	0.2247	773.6464
Total	33.1322	32.9419	102.5402	0.3736	41.3052	0.9001	42.2053	11.0591	0.8896	11.9487	546.5612	44,188.8847	44,735.4459	38.0539	0.4361	45,816.7591

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	33.92	9.50	60.44	58.35	6.90	96.52	39.92	6.90	96.56	68.35	86.54	5.45	11.93	41.50	12.53	12.85

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/1/2021	10/17/2024	5	990	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 12,445,245; Residential Outdoor: 4,148,415; 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
Architectural Coating	Air Compressors	1	0.10	78	0.48

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
Architectural Coating	1	729.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Architectural Coating - 2021

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					
Archit. Coating	15.2075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.3200e-003	3.9500e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.5553	0.5553	4.0000e-005	0.0000	0.5563
Total	15.2080	3.3200e-003	3.9500e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.5553	0.5553	4.0000e-005	0.0000	0.5563

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	0.3941	0.2580	2.7886	7.5000e-003	0.7601	5.6700e-003	0.7658	0.2020	5.2200e-003	0.2073	0.0000	677.3245	677.3245	0.0197	0.0000	677.8163
Total	0.3941	0.2580	2.7886	7.5000e-003	0.7601	5.6700e-003	0.7658	0.2020	5.2200e-003	0.2073	0.0000	677.3245	677.3245	0.0197	0.0000	677.8163

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3.2 Architectural Coating - 2021

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					
Archit. Coating	15.2075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.3200e-003	3.9500e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.5553	0.5553	4.0000e-005	0.0000	0.5563
Total	15.2080	3.3200e-003	3.9500e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.5553	0.5553	4.0000e-005	0.0000	0.5563

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	0.3941	0.2580	2.7886	7.5000e-003	0.7601	5.6700e-003	0.7658	0.2020	5.2200e-003	0.2073	0.0000	677.3245	677.3245	0.0197	0.0000	677.8163
Total	0.3941	0.2580	2.7886	7.5000e-003	0.7601	5.6700e-003	0.7658	0.2020	5.2200e-003	0.2073	0.0000	677.3245	677.3245	0.0197	0.0000	677.8163

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3.2 Architectural Coating - 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					
Archit. Coating	15.1493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4000e-004	3.0500e-003	3.9300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.5532	0.5532	4.0000e-005	0.0000	0.5541
Total	15.1497	3.0500e-003	3.9300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.5532	0.5532	4.0000e-005	0.0000	0.5541

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	0.3638	0.2297	2.5332	7.2000e-003	0.7572	5.4700e-003	0.7627	0.2013	5.0400e-003	0.2063	0.0000	650.6815	650.6815	0.0175	0.0000	651.1195
Total	0.3638	0.2297	2.5332	7.2000e-003	0.7572	5.4700e-003	0.7627	0.2013	5.0400e-003	0.2063	0.0000	650.6815	650.6815	0.0175	0.0000	651.1195

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3.2 Architectural Coating - 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					
Archit. Coating	15.1493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4000e-004	3.0500e-003	3.9300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.5532	0.5532	4.0000e-005	0.0000	0.5541
Total	15.1497	3.0500e-003	3.9300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.5532	0.5532	4.0000e-005	0.0000	0.5541

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	0.3638	0.2297	2.5332	7.2000e-003	0.7572	5.4700e-003	0.7627	0.2013	5.0400e-003	0.2063	0.0000	650.6815	650.6815	0.0175	0.0000	651.1195
Total	0.3638	0.2297	2.5332	7.2000e-003	0.7572	5.4700e-003	0.7627	0.2013	5.0400e-003	0.2063	0.0000	650.6815	650.6815	0.0175	0.0000	651.1195

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3.2 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	tons/yr										MT/yr					
Archit. Coating	15.1493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	2.8200e-003	3.9200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.5532	0.5532	3.0000e-005	0.0000	0.5540
Total	15.1497	2.8200e-003	3.9200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.5532	0.5532	3.0000e-005	0.0000	0.5540

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	0.3378	0.2055	2.3106	6.9300e-003	0.7572	5.3200e-003	0.7625	0.2013	4.9000e-003	0.2062	0.0000	626.3558	626.3558	0.0157	0.0000	626.7471
Total	0.3378	0.2055	2.3106	6.9300e-003	0.7572	5.3200e-003	0.7625	0.2013	4.9000e-003	0.2062	0.0000	626.3558	626.3558	0.0157	0.0000	626.7471

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3.2 Architectural Coating - 2023

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					
Archit. Coating	15.1493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	2.8200e-003	3.9200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.5532	0.5532	3.0000e-005	0.0000	0.5540
Total	15.1497	2.8200e-003	3.9200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.5532	0.5532	3.0000e-005	0.0000	0.5540

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	0.3378	0.2055	2.3106	6.9300e-003	0.7572	5.3200e-003	0.7625	0.2013	4.9000e-003	0.2062	0.0000	626.3558	626.3558	0.0157	0.0000	626.7471
Total	0.3378	0.2055	2.3106	6.9300e-003	0.7572	5.3200e-003	0.7625	0.2013	4.9000e-003	0.2062	0.0000	626.3558	626.3558	0.0157	0.0000	626.7471

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3.2 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	tons/yr										MT/yr					
Archit. Coating	12.1777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	2.1200e-003	3.1500e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.4447	0.4447	3.0000e-005	0.0000	0.4453
Total	12.1780	2.1200e-003	3.1500e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.4447	0.4447	3.0000e-005	0.0000	0.4453

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	0.2532	0.1485	1.7116	5.3500e-003	0.6087	4.1800e-003	0.6129	0.1618	3.8500e-003	0.1656	0.0000	484.1658	484.1658	0.0113	0.0000	484.4487
Total	0.2532	0.1485	1.7116	5.3500e-003	0.6087	4.1800e-003	0.6129	0.1618	3.8500e-003	0.1656	0.0000	484.1658	484.1658	0.0113	0.0000	484.4487

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3.2 Architectural Coating - 2024

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					
Archit. Coating	12.1777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	2.1200e-003	3.1500e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.4447	0.4447	3.0000e-005	0.0000	0.4453
Total	12.1780	2.1200e-003	3.1500e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.4447	0.4447	3.0000e-005	0.0000	0.4453

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	0.2532	0.1485	1.7116	5.3500e-003	0.6087	4.1800e-003	0.6129	0.1618	3.8500e-003	0.1656	0.0000	484.1658	484.1658	0.0113	0.0000	484.4487
Total	0.2532	0.1485	1.7116	5.3500e-003	0.6087	4.1800e-003	0.6129	0.1618	3.8500e-003	0.1656	0.0000	484.1658	484.1658	0.0113	0.0000	484.4487

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.6545	25.9471	59.2444	0.3297	41.3052	0.1467	41.4519	11.0591	0.1362	11.1953	0.0000	30,534.9569	30,534.9569	1.2502	0.0000	30,566.2108
Unmitigated	4.7870	26.6440	62.8759	0.3523	44.3665	0.1562	44.5227	11.8787	0.1450	12.0237	0.0000	32,624.8068	32,624.8068	1.3050	0.0000	32,657.4305

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,312.96	2,990.19	2490.81	9,230,771	8,593,848
Condo/Townhouse	29,580.12	32,893.74	25377.48	86,325,957	80,369,466
Single Family Housing	7,844.64	7,927.74	7105.05	22,717,461	21,149,956
Total	40,737.72	43,811.67	34,973.34	118,274,189	110,113,270

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
Condo/Townhouse	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	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	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400
Condo/Townhouse	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400
Single Family Housing	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,645.5702	5,645.5702	0.3203	0.0728	5,675.2715
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,696.3897	5,696.3897	0.3232	0.0735	5,726.3583
NaturalGas Mitigated	0.5239	4.4769	1.9051	0.0286		0.3620	0.3620		0.3620	0.3620	0.0000	5,184.7039	5,184.7039	0.0994	0.0951	5,215.5140
NaturalGas Unmitigated	0.5550	4.7431	2.0183	0.0303		0.3835	0.3835		0.3835	0.3835	0.0000	5,492.9880	5,492.9880	0.1053	0.1007	5,525.6301

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	8.6091e+006	0.0464	0.3967	0.1688	2.5300e-003		0.0321	0.0321		0.0321	0.0321	0.0000	459.4146	459.4146	8.8100e-003	8.4200e-003	462.1447
Condo/Townhouse	7.25989e+007	0.3915	3.3452	1.4235	0.0214		0.2705	0.2705		0.2705	0.2705	0.0000	3,874.1543	3,874.1543	0.0743	0.0710	3,897.1764
Single Family Housing	2.17267e+007	0.1172	1.0011	0.4260	6.3900e-003		0.0809	0.0809		0.0809	0.0809	0.0000	1,159.4192	1,159.4192	0.0222	0.0213	1,166.3090
Total		0.5550	4.7431	2.0183	0.0303		0.3835	0.3835		0.3835	0.3835	0.0000	5,492.9880	5,492.9880	0.1053	0.1007	5,525.6301

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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	tons/yr										MT/yr					
Apartments Low Rise	8.16518e+006	0.0440	0.3762	0.1601	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.7250	435.7250	8.3500e-003	7.9900e-003	438.3143
Condo/Townhouse	6.85701e+007	0.3697	3.1596	1.3445	0.0202		0.2555	0.2555		0.2555	0.2555	0.0000	3,659.1622	3,659.1622	0.0701	0.0671	3,680.9068
Single Family Housing	2.04224e+007	0.1101	0.9410	0.4004	6.0100e-003		0.0761	0.0761		0.0761	0.0761	0.0000	1,089.8167	1,089.8167	0.0209	0.0200	1,096.2929
Total		0.5239	4.4769	1.9051	0.0286		0.3620	0.3620		0.3620	0.3620	0.0000	5,184.7039	5,184.7039	0.0994	0.0951	5,215.5140

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	2.84861e+006	501.0277	0.0284	6.4600e-003	503.6636
Condo/Townhouse	2.22582e+007	3,914.8887	0.2221	0.0505	3,935.4848
Single Family Housing	7.28017e+006	1,280.4734	0.0727	0.0165	1,287.2100
Total		5,696.3897	0.3232	0.0735	5,726.3583

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	2.81901e+006	495.8211	0.0281	6.3900e-003	498.4296
Condo/Townhouse	2.20568e+007	3,879.4653	0.2201	0.0500	3,899.8751
Single Family Housing	7.22224e+006	1,270.2838	0.0721	0.0164	1,276.9668
Total		5,645.5702	0.3203	0.0728	5,675.2714

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	27.9538	2.5179	41.3907	0.0152		0.3915	0.3915		0.3915	0.3915	0.0000	2,440.8877	2,440.8877	0.1088	0.0435	2,456.5795
Unmitigated	44.7955	5.0130	194.3383	0.5143		25.3421	25.3421		25.3421	25.3421	3,340.9062	2,440.8877	5,781.7939	15.7268	0.0435	6,187.9372

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	2.4996					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	24.0024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	17.0816	4.5453	153.8201	0.5121		25.1164	25.1164		25.1164	25.1164	3,340.9062	2,374.4097	5,715.3160	15.6636	0.0435	6,119.8773
Landscaping	1.2119	0.4677	40.5183	2.1500e-003		0.2257	0.2257		0.2257	0.2257	0.0000	66.4779	66.4779	0.0633	0.0000	68.0598
Total	44.7955	5.0130	194.3383	0.5143		25.3421	25.3421		25.3421	25.3421	3,340.9062	2,440.8877	5,781.7939	15.7269	0.0435	6,187.9371

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4996					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	24.0024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2399	2.0503	0.8725	0.0131		0.1658	0.1658		0.1658	0.1658	0.0000	2,374.4097	2,374.4097	0.0455	0.0435	2,388.5197
Landscaping	1.2119	0.4677	40.5183	2.1500e-003		0.2257	0.2257		0.2257	0.2257	0.0000	66.4779	66.4779	0.0633	0.0000	68.0598
Total	27.9538	2.5179	41.3907	0.0152		0.3915	0.3915		0.3915	0.3915	0.0000	2,440.8877	2,440.8877	0.1088	0.0435	2,456.5795

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	473.4016	9.3308	0.2247	773.6464
Unmitigated	591.7519	11.6636	0.2809	967.0580

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	39.6788 / 25.0149	65.7502	1.2960	0.0312	107.4509
Condo/Townhouse	263.287 / 165.986	436.2834	8.5992	0.2071	712.9870
Single Family Housing	54.143 / 34.1336	89.7183	1.7684	0.0426	146.6202
Total		591.7519	11.6636	0.2809	967.0580

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	31.743 / 20.0119	52.6002	1.0368	0.0250	85.9607
Condo/Townhouse	210.63 / 132.788	349.0268	6.8794	0.1657	570.3896
Single Family Housing	43.3144 / 27.3069	71.7746	1.4147	0.0341	117.2962
Total		473.4016	9.3308	0.2247	773.6464

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	455.9258	26.9444	0.0000	1,129.5369
Unmitigated	607.9011	35.9259	0.0000	1,506.0492

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	280.14	56.8659	3.3607	0.0000	140.8828
Condo/Townhouse	1858.86	377.3318	22.2997	0.0000	934.8235
Single Family Housing	855.72	173.7034	10.2656	0.0000	430.3429
Total		607.9011	35.9259	0.0000	1,506.0492

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	210.105	42.6494	2.5205	0.0000	105.6621
Condo/Townhouse	1394.15	282.9988	16.7248	0.0000	701.1176
Single Family Housing	641.79	130.2776	7.6992	0.0000	322.7572
Total		455.9258	26.9444	0.0000	1,129.5369

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output
Commercial and Industrial Operations 2040
(Annual)

Baldwin Zacharias MP Commercial and Industrial - Stanislaus County, Annual

**Baldwin Zacharias MP Commercial and Industrial
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	855.00	1000sqft	19.63	855,000.00	0
General Light Industry	4,181.00	1000sqft	95.98	4,181,000.00	0
Refrigerated Warehouse-No Rail	2,730.00	1000sqft	62.67	2,730,000.00	0
Parking Lot	188.00	Acre	188.00	8,189,280.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2040
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - TID 2030 RPS Mandate

Land Use - Shopping Center ITE 820 for MU and GC. Light Industrial ITE 110, WH ITE 150 from Traffic Study.

Construction Phase -

Off-road Equipment - Operations only

Trips and VMT - Ops only

Vehicle Trips - ITE 10th Ed Trip Rates

Area Coating - Rule 4601 Architectural Coatings compliance

Energy Use - 2019 Title 24 reduction 10.7% for Elec and 1% for NG

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Waste Mitigation - Achieve 75% statewide recycling mandate

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Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblEnergyUse	T24E	1.96	1.75
tblEnergyUse	T24E	0.47	0.42
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	17.03	16.86
tblEnergyUse	T24NG	0.15	0.15
tblEnergyUse	T24NG	8.62	8.53
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblVehicleTrips	ST_TR	1.32	1.99
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	SU_TR	0.68	5.00
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	WD_TR	6.97	4.96
tblVehicleTrips	WD_TR	1.68	1.74

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.1672	1.1672
2	4-1-2021	6-30-2021	1.1802	1.1802
3	7-1-2021	9-30-2021	1.1932	1.1932
		Highest	1.1932	1.1932

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	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513
Energy	0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	25,087.7738	25,087.7738	1.2309	0.3514	25,223.2523
Mobile	7.4866	111.6594	74.8035	0.5995	48.2964	0.2190	48.5153	12.9626	0.2051	13.1677	0.0000	55,914.2797	55,914.2797	3.3427	0.0000	55,997.8476
Waste						0.0000	0.0000		0.0000	0.0000	1,755.5450	0.0000	1,755.5450	103.7497	0.0000	4,349.2885
Water						0.0000	0.0000		0.0000	0.0000	527.1175	1,605.1682	2,132.2857	54.2311	1.2991	3,875.1834
Total	41.3810	116.3670	78.8300	0.6277	48.2964	0.5770	48.8733	12.9626	0.5631	13.5257	2,282.6626	82,607.3637	84,890.0263	162.5548	1.6504	89,445.7231

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513
Energy	0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	25,087.7738	25,087.7738	1.2309	0.3514	25,223.2523
Mobile	7.2722	109.8404	70.8344	0.5657	44.9639	0.2057	45.1696	12.0682	0.1927	12.2609	0.0000	52,779.3622	52,779.3622	3.2997	0.0000	52,861.8552
Waste						0.0000	0.0000		0.0000	0.0000	1,316.6588	0.0000	1,316.6588	77.8123	0.0000	3,261.9664
Water						0.0000	0.0000		0.0000	0.0000	421.6940	1,284.1345	1,705.8286	43.3849	1.0393	3,100.1467
Total	41.1666	114.5480	74.8608	0.5940	44.9639	0.5637	45.5276	12.0682	0.5507	12.6188	1,738.3528	79,151.4126	80,889.7654	125.7281	1.3906	84,447.3719

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.52	1.56	5.04	5.37	6.90	2.30	6.85	6.90	2.21	6.70	23.85	4.18	4.71	22.65	15.74	5.59

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	1/1/2021	12/2/2021	5	240	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 188

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	1.00	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	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Site Preparation - 2021

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					2.1680	0.0000	2.1680	1.1917	0.0000	1.1917	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3795	3.9781	1.4875	3.1200e-003		0.1934	0.1934		0.1779	0.1779	0.0000	274.2963	274.2963	0.0887	0.0000	276.5141
Total	0.3795	3.9781	1.4875	3.1200e-003	2.1680	0.1934	2.3613	1.1917	0.1779	1.3696	0.0000	274.2963	274.2963	0.0887	0.0000	276.5141

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

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

	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	7.2722	109.8404	70.8344	0.5657	44.9639	0.2057	45.1696	12.0682	0.1927	12.2609	0.0000	52,779.3622	52,779.3622	3.2997	0.0000	52,861.8552
Unmitigated	7.4866	111.6594	74.8035	0.5995	48.2964	0.2190	48.5153	12.9626	0.2051	13.1677	0.0000	55,914.2797	55,914.2797	3.3427	0.0000	55,997.8476

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	20,737.76	8,320.19	20905.00	55,434,839	51,609,835
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	4,750.20	409.50	163.80	10,145,009	9,445,004
Regional Shopping Center	36,508.50	42,724.35	21580.20	61,828,303	57,562,150
Total	61,996.46	51,454.04	42,649.00	127,408,152	118,616,989

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427
Parking Lot	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427
Refrigerated Warehouse-No Rail	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427
Regional Shopping Center	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	19,963.6587	19,963.6587	1.1327	0.2574	20,068.6872
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	19,963.6587	19,963.6587	1.1327	0.2574	20,068.6872
NaturalGas Mitigated	0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	5,124.1151	5,124.1151	0.0982	0.0939	5,154.5651
NaturalGas Unmitigated	0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	5,124.1151	5,124.1151	0.0982	0.0939	5,154.5651

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 Light Industry	8.65467e+007	0.4667	4.2425	3.5637	0.0255		0.3224	0.3224		0.3224	0.3224	0.0000	4,618.4615	4,618.4615	0.0885	0.0847	4,645.9067
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	0.0000
Refrigerated Warehouse-No Rail	404040	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.5611	21.5611	4.1000e-004	4.0000e-004	21.6892
Regional Shopping Center	9.07155e+006	0.0489	0.4447	0.3735	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	484.0925	484.0925	9.2800e-003	8.8800e-003	486.9692
Total		0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	5,124.1151	5,124.1151	0.0982	0.0940	5,154.5651

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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	tons/yr										MT/yr					
General Light Industry	8.65467e+007	0.4667	4.2425	3.5637	0.0255		0.3224	0.3224		0.3224	0.3224	0.0000	4,618.4615	4,618.4615	0.0885	0.0847	4,645.9067
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	0.0000
Refrigerated Warehouse-No Rail	404040	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.5611	21.5611	4.1000e-004	4.0000e-004	21.6892
Regional Shopping Center	9.07155e+006	0.0489	0.4447	0.3735	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	484.0925	484.0925	9.2800e-003	8.8800e-003	486.9692
Total		0.5178	4.7070	3.9539	0.0282		0.3577	0.3577		0.3577	0.3577	0.0000	5,124.1151	5,124.1151	0.0982	0.0940	5,154.5651

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.59984e+007	6,331.5795	0.3592	0.0816	6,364.8899
Parking Lot	2.86625e+006	504.1300	0.0286	6.5000e-003	506.7822
Refrigerated Warehouse-No Rail	6.78678e+007	11,936.9265	0.6773	0.1539	11,999.7265
Regional Shopping Center	6.7716e+006	1,191.0227	0.0676	0.0154	1,197.2887
Total		19,963.6587	1.1327	0.2574	20,068.6872

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.59984e+007	6,331.5795	0.3592	0.0816	6,364.8899
Parking Lot	2.86625e+006	504.1300	0.0286	6.5000e-003	506.7822
Refrigerated Warehouse-No Rail	6.78678e+007	11,936.9265	0.6773	0.1539	11,999.7265
Regional Shopping Center	6.7716e+006	1,191.0227	0.0676	0.0154	1,197.2887
Total		19,963.6587	1.1327	0.2574	20,068.6872

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513
Unmitigated	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513

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	2.5105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	30.8595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6500e-003	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513
Total	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	30.8595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6500e-003	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513
Total	33.3766	6.5000e-004	0.0726	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	0.1421	0.1421	3.7000e-004	0.0000	0.1513

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,705.828 6	43.3849	1.0393	3,100.146 7
Unmitigated	2,132.285 7	54.2311	1.2991	3,875.183 4

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	966.856 / 0	1,226.909 1	31.5572	0.7558	2,241.058 5
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	631.313 / 0	801.1150	20.6054	0.4935	1,463.307 8
Regional Shopping Center	63.332 / 38.8164	104.2615	2.0685	0.0498	170.8171
Total		2,132.285 7	54.2311	1.2991	3,875.183 4

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	773.485 / 0	981.5273	25.2458	0.6046	1,792.8468
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	505.05 / 0	640.8920	16.4843	0.3948	1,170.6462
Regional Shopping Center	50.6656 / 31.0531	83.4092	1.6548	0.0399	136.6537
Total		1,705.8286	43.3849	1.0392	3,100.1467

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Baldwin Zacharias MP Commercial and Industrial - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,316.658 8	77.8123	0.0000	3,261.966 4
Unmitigated	1,755.545 0	103.7497	0.0000	4,349.288 5

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	5184.44	1,052.394 5	62.1947	0.0000	2,607.262 8
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2566.2	520.9154	30.7852	0.0000	1,290.545 9
Regional Shopping Center	897.75	182.2351	10.7698	0.0000	451.4798
Total		1,755.545 0	103.7497	0.0000	4,349.288 5

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3888.33	789.2959	46.6461	0.0000	1,955.4471
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1924.65	390.6866	23.0889	0.0000	967.9094
Regional Shopping Center	673.313	136.6764	8.0773	0.0000	338.6099
Total		1,316.6588	77.8123	0.0000	3,261.9664

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

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Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Elementary School Operations 2040 (Annual)

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

**Baldwin Zacharias MP Elementary School
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	0.96	41,801.69	0
Other Non-Asphalt Surfaces	11.04	Acre	11.04	480,902.40	0
Parking Lot	2.00	Acre	2.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2040
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

Project Characteristics - TID Intensity Factor for 2030

Land Use -

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition Trip Gen.

Area Coating - Rule 4601 Architectural Coatings

Energy Use - 2019 Title 24 reduces non-residential energy use by 10.7% for electricity and 1% for NG

Construction Off-road Equipment Mitigation - Tier 4 Equipment Mitigation

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Residential Fleet Mix 2040

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	23.19	22.96
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD2	3.3080e-003	1.0000e-003

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tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MDV	0.09	0.06
tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	UBUS	8.7500e-004	4.3000e-003
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	WD_TR	1.29	1.89

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.3202	0.3348
2	4-1-2021	6-30-2021	1.0546	0.5095
3	7-1-2021	9-30-2021	1.0662	0.5151
4	10-1-2021	12-31-2021	1.0716	0.5206
5	1-1-2022	3-31-2022	0.9597	0.4853
6	4-1-2022	6-30-2022	0.4641	0.3053
		Highest	1.3202	0.5206

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	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003
Energy	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	110.7849	110.7849	4.2000e-003	1.7300e-003	111.4055
Mobile	0.0721	0.4038	0.8337	4.5400e-003	0.5583	2.0400e-003	0.5603	0.1495	1.9000e-003	0.1514	0.0000	420.2265	420.2265	0.0185	0.0000	420.6900
Waste						0.0000	0.0000		0.0000	0.0000	18.5229	0.0000	18.5229	1.0947	0.0000	45.8898
Water						0.0000	0.0000		0.0000	0.0000	0.3846	3.0723	3.4569	0.0397	9.7000e-004	4.7384
Total	0.3026	0.4549	0.8812	4.8500e-003	0.5583	5.9300e-003	0.5642	0.1495	5.7900e-003	0.1553	18.9075	534.0929	553.0004	1.1571	2.7000e-003	582.7334

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003
Energy	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	110.7849	110.7849	4.2000e-003	1.7300e-003	111.4055
Mobile	0.0705	0.3951	0.7880	4.2500e-003	0.5198	1.9300e-003	0.5217	0.1392	1.7900e-003	0.1410	0.0000	393.9284	393.9284	0.0179	0.0000	394.3746
Waste						0.0000	0.0000		0.0000	0.0000	13.8922	0.0000	13.8922	0.8210	0.0000	34.4173
Water						0.0000	0.0000		0.0000	0.0000	0.3076	2.4579	2.7655	0.0317	7.8000e-004	3.7907
Total	0.3009	0.4461	0.8355	4.5600e-003	0.5198	5.8200e-003	0.5256	0.1392	5.6800e-003	0.1448	14.1998	507.1803	521.3801	0.8748	2.5100e-003	543.9979

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.55	1.93	5.19	5.98	6.90	1.85	6.85	6.90	1.90	6.72	24.90	5.04	5.72	24.40	7.04	6.65

3.0 Construction Detail

Construction Phase

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	12/31/2020	5	10	
2	Grading	Grading	1/1/2021	2/11/2021	5	30	
3	Building Construction	Building Construction	2/12/2021	4/7/2022	5	300	
4	Paving	Paving	4/8/2022	5/5/2022	5	20	
5	Architectural Coating	Architectural Coating	5/6/2022	6/2/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 62,703; Non-Residential Outdoor: 20,901; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	256.00	100.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.3 Grading - 2021

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	0.0629	0.6960	0.4632	9.3000e-004	0.1301	0.0298	0.1599	0.0540	0.0274	0.0814	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.0495	0.4950	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	0.0114	0.0495	0.4950	9.3000e-004	0.0586	1.5200e-003	0.0601	0.0243	1.5200e-003	0.0258	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033

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3.3 Grading - 2021

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	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375
Total	1.2400e-003	8.1000e-004	8.7900e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1359	2.1359	6.0000e-005	0.0000	2.1375

3.4 Building Construction - 2021

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					
Off-Road	0.2196	2.0134	1.9144	3.1100e-003		0.1107	0.1107		0.1041	0.1041	0.0000	267.5411	267.5411	0.0646	0.0000	269.1547
Total	0.2196	2.0134	1.9144	3.1100e-003		0.1107	0.1107		0.1041	0.1041	0.0000	267.5411	267.5411	0.0646	0.0000	269.1547

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3.4 Building Construction - 2021

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	0.0352	1.2831	0.2108	3.2200e-003	0.0764	3.4600e-003	0.0799	0.0221	3.3100e-003	0.0254	0.0000	305.9480	305.9480	0.0253	0.0000	306.5802
Worker	0.1225	0.0802	0.8667	2.3300e-003	0.2362	1.7600e-003	0.2380	0.0628	1.6200e-003	0.0644	0.0000	210.5139	210.5139	6.1100e-003	0.0000	210.6667
Total	0.1577	1.3633	1.0775	5.5500e-003	0.3127	5.2200e-003	0.3179	0.0849	4.9300e-003	0.0898	0.0000	516.4619	516.4619	0.0314	0.0000	517.2469

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					
Off-Road	0.0379	0.2581	2.0167	3.1100e-003		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	267.5407	267.5407	0.0646	0.0000	269.1544
Total	0.0379	0.2581	2.0167	3.1100e-003		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	267.5407	267.5407	0.0646	0.0000	269.1544

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3.4 Building Construction - 2021

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	0.0352	1.2831	0.2108	3.2200e-003	0.0764	3.4600e-003	0.0799	0.0221	3.3100e-003	0.0254	0.0000	305.9480	305.9480	0.0253	0.0000	306.5802
Worker	0.1225	0.0802	0.8667	2.3300e-003	0.2362	1.7600e-003	0.2380	0.0628	1.6200e-003	0.0644	0.0000	210.5139	210.5139	6.1100e-003	0.0000	210.6667
Total	0.1577	1.3633	1.0775	5.5500e-003	0.3127	5.2200e-003	0.3179	0.0849	4.9300e-003	0.0898	0.0000	516.4619	516.4619	0.0314	0.0000	517.2469

3.4 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	tons/yr										MT/yr					
Off-Road	0.0589	0.5387	0.5645	9.3000e-004		0.0279	0.0279		0.0263	0.0263	0.0000	79.9452	79.9452	0.0192	0.0000	80.4240
Total	0.0589	0.5387	0.5645	9.3000e-004		0.0279	0.0279		0.0263	0.0263	0.0000	79.9452	79.9452	0.0192	0.0000	80.4240

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3.4 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	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	9.7900e-003	0.3640	0.0583	9.5000e-004	0.0228	9.0000e-004	0.0237	6.5900e-003	8.6000e-004	7.4500e-003	0.0000	90.5222	90.5222	7.2800e-003	0.0000	90.7043
Worker	0.0339	0.0214	0.2361	6.7000e-004	0.0706	5.1000e-004	0.0711	0.0188	4.7000e-004	0.0192	0.0000	60.6396	60.6396	1.6300e-003	0.0000	60.6805
Total	0.0437	0.3854	0.2943	1.6200e-003	0.0934	1.4100e-003	0.0948	0.0254	1.3300e-003	0.0267	0.0000	151.1619	151.1619	8.9100e-003	0.0000	151.3848

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					
Off-Road	0.0113	0.0771	0.6024	9.3000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	79.9451	79.9451	0.0192	0.0000	80.4239
Total	0.0113	0.0771	0.6024	9.3000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	79.9451	79.9451	0.0192	0.0000	80.4239

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3.4 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	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	9.7900e-003	0.3640	0.0583	9.5000e-004	0.0228	9.0000e-004	0.0237	6.5900e-003	8.6000e-004	7.4500e-003	0.0000	90.5222	90.5222	7.2800e-003	0.0000	90.7043
Worker	0.0339	0.0214	0.2361	6.7000e-004	0.0706	5.1000e-004	0.0711	0.0188	4.7000e-004	0.0192	0.0000	60.6396	60.6396	1.6300e-003	0.0000	60.6805
Total	0.0437	0.3854	0.2943	1.6200e-003	0.0934	1.4100e-003	0.0948	0.0254	1.3300e-003	0.0267	0.0000	151.1619	151.1619	8.9100e-003	0.0000	151.3848

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	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0137	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895

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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	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	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306
Total	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4200e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895

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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	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	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306
Total	5.8000e-004	3.6000e-004	4.0100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0299	1.0299	3.0000e-005	0.0000	1.0306

3.6 Architectural Coating - 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					
Archit. Coating	0.2444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2465	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 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	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	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040
Total	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040

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					
Archit. Coating	0.2444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2447	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 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	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	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040
Total	1.9600e-003	1.2400e-003	0.0136	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	3.0000e-005	1.1100e-003	0.0000	3.5016	3.5016	9.0000e-005	0.0000	3.5040

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0705	0.3951	0.7880	4.2500e-003	0.5198	1.9300e-003	0.5217	0.1392	1.7900e-003	0.1410	0.0000	393.9284	393.9284	0.0179	0.0000	394.3746
Unmitigated	0.0721	0.4038	0.8337	4.5400e-003	0.5583	2.0400e-003	0.5603	0.1495	1.9000e-003	0.1514	0.0000	420.2265	420.2265	0.0185	0.0000	420.6900

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	945.00	0.00	0.00	1,488,334	1,385,639
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	945.00	0.00	0.00	1,488,334	1,385,639

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400
Other Non-Asphalt Surfaces	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427
Parking Lot	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427

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	55.2851	55.2851	3.1400e-003	7.1000e-004	55.5760
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	55.2851	55.2851	3.1400e-003	7.1000e-004	55.5760
NaturalGas Mitigated	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
NaturalGas Unmitigated	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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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					
Elementary School	1.04003e+006	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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					
Elementary School	1.04003e+006	5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		5.6100e-003	0.0510	0.0428	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4998	55.4998	1.0600e-003	1.0200e-003	55.8296

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	283833	49.9220	2.8300e-003	6.4000e-004	50.1847
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	5.3631	3.0000e-004	7.0000e-005	5.3913
Total		55.2851	3.1300e-003	7.1000e-004	55.5760

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	283833	49.9220	2.8300e-003	6.4000e-004	50.1847
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	5.3631	3.0000e-004	7.0000e-005	5.3913
Total		55.2851	3.1300e-003	7.1000e-004	55.5760

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003
Unmitigated	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003

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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	0.0244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003
Total	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003

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	0.0244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003
Total	0.2248	4.0000e-005	4.6800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.1700e-003	9.1700e-003	2.0000e-005	0.0000	9.7600e-003

7.0 Water Detail

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.7655	0.0317	7.8000e-004	3.7907
Unmitigated	3.4569	0.0397	9.7000e-004	4.7384

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	1.21212 / 3.11688	3.4569	0.0397	9.7000e-004	4.7384
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.4569	0.0397	9.7000e-004	4.7384

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.969696 / 2.4935	2.7655	0.0317	7.8000e-004	3.7907
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.7655	0.0317	7.8000e-004	3.7907

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.8922	0.8210	0.0000	34.4173
Unmitigated	18.5229	1.0947	0.0000	45.8898

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		18.5229	1.0947	0.0000	45.8898

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	68.4375	13.8922	0.8210	0.0000	34.4173
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		13.8922	0.8210	0.0000	34.4173

Baldwin Zacharias MP Elementary School - Stanislaus County, Annual

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output

Middle School Operations 2040 (Annual)

Baldwin Zacharias MP Middle School - Stanislaus County, Annual

**Baldwin Zacharias MP Middle School
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	900.00	Student	2.43	105,805.52	0
Other Non-Asphalt Surfaces	11.57	Acre	11.57	503,989.20	0
Parking Lot	2.00	Acre	2.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2040
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - TID Intensity Factor for 2030

Land Use - 16 acre site

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition Trip Gen.

Area Coating - Rule 4601 Architectural Coatings

Energy Use - 2019 Title 24 reduces non-residential energy use by 10.7% for electricity and 1% for NG

Construction Off-road Equipment Mitigation - Tier 4 Equipment Mitigation

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings Compliance

Energy Mitigation -

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Residential Fleet Mix 2040

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	65
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	23.19	22.96
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD2	3.3080e-003	1.0000e-003

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tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MDV	0.09	0.06
tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	UBUS	8.7500e-004	4.3000e-003
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	WD_TR	1.62	2.13

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.0526	0.2499
2	4-1-2023	6-30-2023	0.8873	0.4520
3	7-1-2023	9-30-2023	0.8970	0.4569
4	10-1-2023	12-31-2023	0.9003	0.4602
5	1-1-2024	3-31-2024	0.8492	0.4477
6	4-1-2024	6-30-2024	0.7446	0.5582
		Highest	1.0526	0.5582

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	0.5381	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Energy	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	272.1994	272.1994	0.0102	4.2700e-003	273.7272
Mobile	0.1473	0.8243	1.7175	9.3700e-003	1.1548	4.2200e-003	1.1590	0.3092	3.9100e-003	0.3131	0.0000	867.6268	867.6268	0.0380	0.0000	868.5769
Waste						0.0000	0.0000		0.0000	0.0000	33.3413	0.0000	33.3413	1.9704	0.0000	82.6016
Water						0.0000	0.0000		0.0000	0.0000	0.6922	5.5302	6.2224	0.0714	1.7500e-003	8.5291
Total	0.6995	0.9534	1.8342	0.0101	1.1548	0.0141	1.1688	0.3092	0.0138	0.3229	34.0335	1,145.3727	1,179.4062	2.0900	6.0200e-003	1,233.4521

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4964	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Energy	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	272.1994	272.1994	0.0102	4.2700e-003	273.7272
Mobile	0.1438	0.8061	1.6230	8.7800e-003	1.0751	3.9700e-003	1.0791	0.2878	3.6800e-003	0.2915	0.0000	813.2326	813.2326	0.0366	0.0000	814.1470
Waste						0.0000	0.0000		0.0000	0.0000	25.0060	0.0000	25.0060	1.4778	0.0000	61.9512
Water						0.0000	0.0000		0.0000	0.0000	0.5538	4.4242	4.9779	0.0571	1.4000e-003	6.8233
Total	0.6544	0.9352	1.7397	9.5500e-003	1.0751	0.0138	1.0889	0.2878	0.0135	0.3014	25.5597	1,089.8724	1,115.4321	1.5817	5.6700e-003	1,156.6660

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.45	1.90	5.15	5.82	6.90	1.78	6.84	6.90	1.67	6.68	24.90	4.85	5.42	24.32	5.81	6.23

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Paving	Paving	4/20/2024	5/17/2024	5	20	
5	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 13.57

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 158,708; Non-Residential Outdoor: 52,903; Striped Parking Area: 35,467 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	293.00	114.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

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3.2 Site Preparation - 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	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	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952
Total	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	2.3300e-003	0.0101	0.1043	1.9000e-004	0.0407	3.1000e-004	0.0410	0.0223	3.1000e-004	0.0227	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

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3.2 Site Preparation - 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	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	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952
Total	3.2000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5948	0.5948	1.0000e-005	0.0000	0.5952

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1301	0.0214	0.1515	0.0540	0.0197	0.0736	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

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3.3 Grading - 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	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	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840
Total	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.0495	0.4950	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0114	0.0495	0.4950	9.3000e-004	0.0586	1.5200e-003	0.0601	0.0243	1.5200e-003	0.0258	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

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3.3 Grading - 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	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	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840
Total	1.0700e-003	6.5000e-004	7.3100e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	1.9828	1.9828	5.0000e-005	0.0000	1.9840

3.4 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	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

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3.4 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	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	0.0247	1.0377	0.1737	3.3800e-003	0.0830	1.0300e-003	0.0840	0.0240	9.9000e-004	0.0250	0.0000	320.9992	320.9992	0.0187	0.0000	321.4672
Worker	0.1149	0.0699	0.7858	2.3600e-003	0.2575	1.8100e-003	0.2593	0.0685	1.6700e-003	0.0701	0.0000	213.0152	213.0152	5.3200e-003	0.0000	213.1482
Total	0.1396	1.1076	0.9595	5.7400e-003	0.3405	2.8400e-003	0.3433	0.0924	2.6600e-003	0.0951	0.0000	534.0144	534.0144	0.0240	0.0000	534.6154

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					
Off-Road	0.0361	0.2458	1.9206	2.9600e-003		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.0361	0.2458	1.9206	2.9600e-003		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

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3.4 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	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	0.0247	1.0377	0.1737	3.3800e-003	0.0830	1.0300e-003	0.0840	0.0240	9.9000e-004	0.0250	0.0000	320.9992	320.9992	0.0187	0.0000	321.4672
Worker	0.1149	0.0699	0.7858	2.3600e-003	0.2575	1.8100e-003	0.2593	0.0685	1.6700e-003	0.0701	0.0000	213.0152	213.0152	5.3200e-003	0.0000	213.1482
Total	0.1396	1.1076	0.9595	5.7400e-003	0.3405	2.8400e-003	0.3433	0.0924	2.6600e-003	0.0951	0.0000	534.0144	534.0144	0.0240	0.0000	534.6154

3.4 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	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

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3.4 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	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	8.7100e-003	0.3743	0.0598	1.2200e-003	0.0302	3.7000e-004	0.0305	8.7100e-003	3.5000e-004	9.0700e-003	0.0000	115.8693	115.8693	6.8500e-003	0.0000	116.0405
Worker	0.0390	0.0228	0.2633	8.2000e-004	0.0936	6.4000e-004	0.0943	0.0249	5.9000e-004	0.0255	0.0000	74.4866	74.4866	1.7400e-003	0.0000	74.5301
Total	0.0477	0.3971	0.3231	2.0400e-003	0.1238	1.0100e-003	0.1248	0.0336	9.4000e-004	0.0346	0.0000	190.3558	190.3558	8.5900e-003	0.0000	190.5705

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					
Off-Road	0.0131	0.0894	0.6984	1.0800e-003		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0131	0.0894	0.6984	1.0800e-003		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

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3.4 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	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	8.7100e-003	0.3743	0.0598	1.2200e-003	0.0302	3.7000e-004	0.0305	8.7100e-003	3.5000e-004	9.0700e-003	0.0000	115.8693	115.8693	6.8500e-003	0.0000	116.0405
Worker	0.0390	0.0228	0.2633	8.2000e-004	0.0936	6.4000e-004	0.0943	0.0249	5.9000e-004	0.0255	0.0000	74.4866	74.4866	1.7400e-003	0.0000	74.5301
Total	0.0477	0.3971	0.3231	2.0400e-003	0.1238	1.0100e-003	0.1248	0.0336	9.4000e-004	0.0346	0.0000	190.3558	190.3558	8.5900e-003	0.0000	190.5705

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0125	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

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3.5 Paving - 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	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	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539
Total	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539

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					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.4200e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

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3.5 Paving - 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	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	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539
Total	5.0000e-004	2.9000e-004	3.3700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9533	0.9533	2.0000e-005	0.0000	0.9539

3.6 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	tons/yr										MT/yr					
Archit. Coating	0.4421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	0.4439	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569

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3.6 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	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	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519
Total	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519

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					
Archit. Coating	0.4421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	0.4424	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568

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3.6 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	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	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519
Total	1.9600e-003	1.1500e-003	0.0133	4.0000e-005	4.7100e-003	3.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	3.7498	3.7498	9.0000e-005	0.0000	3.7519

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1438	0.8061	1.6230	8.7800e-003	1.0751	3.9700e-003	1.0791	0.2878	3.6800e-003	0.2915	0.0000	813.2326	813.2326	0.0366	0.0000	814.1470
Unmitigated	0.1473	0.8243	1.7175	9.3700e-003	1.1548	4.2200e-003	1.1590	0.3092	3.9100e-003	0.3131	0.0000	867.6268	867.6268	0.0380	0.0000	868.5769

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior High School	1,917.00	0.00	0.00	3,078,420	2,866,009
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,917.00	0.00	0.00	3,078,420	2,866,009

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior High School	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400
Other Non-Asphalt Surfaces	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427
Parking Lot	0.561935	0.028835	0.181775	0.088795	0.008394	0.003308	0.026073	0.093385	0.001808	0.000875	0.003797	0.000593	0.000427

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.7223	131.7223	7.4700e-003	1.7000e-003	132.4153
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.7223	131.7223	7.4700e-003	1.7000e-003	132.4153
NaturalGas Mitigated	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
NaturalGas Unmitigated	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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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					
Junior High School	2.63244e+006	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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					
Junior High School	2.63244e+006	0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119
Other Non-Asphalt Surfaces	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	0.0000
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	0.0000
Total		0.0142	0.1290	0.1084	7.7000e-004		9.8100e-003	9.8100e-003		9.8100e-003	9.8100e-003	0.0000	140.4771	140.4771	2.6900e-003	2.5800e-003	141.3119

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	718419	126.3592	7.1700e-003	1.6300e-003	127.0240
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	5.3631	3.0000e-004	7.0000e-005	5.3913
Total		131.7223	7.4700e-003	1.7000e-003	132.4153

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior High School	718419	126.3592	7.1700e-003	1.6300e-003	127.0240
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	5.3631	3.0000e-004	7.0000e-005	5.3913
Total		131.7223	7.4700e-003	1.7000e-003	132.4153

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4964	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Unmitigated	0.5381	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

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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	0.0859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.6000e-004	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Total	0.5381	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

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	0.0442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.6000e-004	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174
Total	0.4964	7.0000e-005	8.3400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0174

7.0 Water Detail

Baldwin Zacharias MP Middle School - Stanislaus County, Annual

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.9779	0.0571	1.4000e-003	6.8233
Unmitigated	6.2224	0.0714	1.7500e-003	8.5291

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	2.18182 / 5.61038	6.2224	0.0714	1.7500e-003	8.5291
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		6.2224	0.0714	1.7500e-003	8.5291

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior High School	1.74545 / 4.48831	4.9779	0.0571	1.4000e-003	6.8233
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.9779	0.0571	1.4000e-003	6.8233

Baldwin Zacharias MP Middle School - Stanislaus County, Annual

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.0060	1.4778	0.0000	61.9512
Unmitigated	33.3413	1.9704	0.0000	82.6016

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	164.25	33.3413	1.9704	0.0000	82.6016
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		33.3413	1.9704	0.0000	82.6016

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior High School	123.188	25.0060	1.4778	0.0000	61.9512
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		25.0060	1.4778	0.0000	61.9512

Baldwin Zacharias MP Middle School - Stanislaus County, Annual

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

CalEEMod Output

Residential Project Construction and Operations 2021 (Summer Daily)

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

**Baldwin Zacharias Master Plan Construction
Stanislaus County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	213.00	Dwelling Unit	37.60	383,400.00	609
Apartments Low Rise	30.00	Dwelling Unit	1.50	30,000.00	86

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

Project Characteristics -

Land Use - Average annual residential construction

Construction Phase - One year schedule based on average annual units completed.

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition SFR

Fleet Mix - SJVAPCD Residential Fleet Mix

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation - SJVAPCD Rule 4601 Compliant coatings

Energy Mitigation - 2019 Title 24

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Off-road Equipment - Increased equipment to match a one year schedule while retaining default hours.

Off-road Equipment - Increased equipment to account for one year schedule while retaining default hours of use.

Off-road Equipment - Adjusted equipment numbers to accommodate one year schedule with default hours of use.

Off-road Equipment - Increased equipment numbers to accommodate one year schedule while retaining default hours of use.

Off-road Equipment - Increased equipment number to accommodate one year schedule while retaining default hours.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	65
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	740.00	175.00
tblConstructionPhase	NumDays	75.00	30.00
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	30.00	15.00

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

tblConstructionPhase	PhaseEndDate	8/29/2024	12/30/2021
tblConstructionPhase	PhaseEndDate	3/28/2024	11/4/2021
tblConstructionPhase	PhaseEndDate	5/27/2021	3/4/2021
tblConstructionPhase	PhaseEndDate	6/13/2024	12/2/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	1/21/2021
tblConstructionPhase	PhaseStartDate	6/14/2024	12/3/2021
tblConstructionPhase	PhaseStartDate	5/28/2021	3/5/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	1/22/2021
tblConstructionPhase	PhaseStartDate	3/29/2024	11/5/2021
tblFleetMix	HHD	0.09	0.02
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.52	0.54
tblFleetMix	LDA	0.52	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.3520e-003	9.0000e-004
tblFleetMix	LHD2	5.3520e-003	9.0000e-004
tblFleetMix	MCY	4.6330e-003	2.6000e-003
tblFleetMix	MCY	4.6330e-003	2.6000e-003
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MH	9.1100e-004	1.6000e-003
tblFleetMix	MH	9.1100e-004	1.6000e-003

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	1.8370e-003	0.00
tblFleetMix	OBUS	1.8370e-003	0.00
tblFleetMix	SBUS	8.4500e-004	9.0000e-004
tblFleetMix	SBUS	8.4500e-004	9.0000e-004
tblFleetMix	UBUS	1.1190e-003	4.4000e-003
tblFleetMix	UBUS	1.1190e-003	4.4000e-003
tblGrading	AcresOfGrading	195.00	187.50
tblLandUse	LotAcreage	69.16	37.60
tblLandUse	LotAcreage	1.88	1.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	13.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	13.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

tblTripsAndVMT	WorkerTripNumber	35.00	18.00
tblTripsAndVMT	WorkerTripNumber	53.00	20.00
tblTripsAndVMT	WorkerTripNumber	45.00	15.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	1.50	0.00
tblWoodstoves	NumberCatalytic	37.60	0.00
tblWoodstoves	NumberNoncatalytic	1.50	0.00
tblWoodstoves	NumberNoncatalytic	37.60	0.00

2.0 Emissions Summary

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

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	11.8385	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228
Energy	0.1771	1.5132	0.6439	9.6600e-003		0.1223	0.1223		0.1223	0.1223		1,931.6777	1,931.6777	0.0370	0.0354	1,943.1567
Mobile	5.4745	14.8134	57.1795	0.1617	13.9506	0.1525	14.1031	3.7274	0.1425	3.8700		16,314.0227	16,314.0227	0.8491		16,335.2498
Total	17.4900	18.7750	78.8361	0.1865	13.9506	0.5650	14.5156	3.7274	0.5550	4.2825	0.0000	21,112.0339	21,112.0339	0.9752	0.0873	21,162.4293

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	10.6337	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228
Energy	0.1666	1.4232	0.6056	9.0800e-003		0.1151	0.1151		0.1151	0.1151		1,816.8722	1,816.8722	0.0348	0.0333	1,827.6690
Mobile	5.3783	14.2203	53.8685	0.1511	12.9880	0.1430	13.1310	3.4702	0.1337	3.6039		15,253.0365	15,253.0365	0.8067		15,273.2041
Total	16.1785	18.0920	75.4869	0.1754	12.9880	0.5482	13.5362	3.4702	0.5389	4.0091	0.0000	19,936.2422	19,936.2422	0.9306	0.0852	19,984.8959

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.50	3.64	4.25	5.95	6.90	2.97	6.75	6.90	2.91	6.38	0.00	5.57	5.57	4.57	2.41	5.56

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	1/1/2021	1/21/2021	5	15	
2	Grading	Grading	1/22/2021	3/4/2021	5	30	
3	Building Construction	Building Construction	3/5/2021	11/4/2021	5	175	
4	Paving	Paving	11/5/2021	12/2/2021	5	20	
5	Architectural Coating	Architectural Coating	12/3/2021	12/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 837,135; Residential Outdoor: 279,045; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	3	6.00	78	0.48
Grading	Excavators	5	8.00	158	0.38
Building Construction	Cranes	4	7.00	231	0.29
Building Construction	Forklifts	13	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Paving	Pavers	6	8.00	130	0.42
Paving	Rollers	6	8.00	80	0.38
Grading	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	13	7.00	97	0.37
Grading	Graders	3	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Paving	Paving Equipment	6	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	6	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Building Construction	Welders	4	8.00	46	0.45

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	14	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	21	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	38	98.00	26.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	18	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					36.1325	0.0000	36.1325	19.8614	0.0000	19.8614			0.0000			0.0000
Off-Road	7.7764	80.9942	42.3085	0.0760		4.0889	4.0889		3.7618	3.7618		7,371.3138	7,371.3138	2.3840		7,430.9146
Total	7.7764	80.9942	42.3085	0.0760	36.1325	4.0889	40.2214	19.8614	3.7618	23.6232		7,371.3138	7,371.3138	2.3840		7,430.9146

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

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					16.2596	0.0000	16.2596	8.9376	0.0000	8.9376			0.0000			0.0000
Off-Road	4.8839	48.5171	41.9920	0.0760		2.4298	2.4298		2.2395	2.2395	0.0000	7,371.3138	7,371.3138	2.3840		7,430.9146
Total	4.8839	48.5171	41.9920	0.0760	16.2596	2.4298	18.6894	8.9376	2.2395	11.1771	0.0000	7,371.3138	7,371.3138	2.3840		7,430.9146

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

3.3 Grading - 2021

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					24.6944	0.0000	24.6944	10.6464	0.0000	10.6464			0.0000			0.0000
Off-Road	11.2276	124.4475	80.0986	0.1626		5.3234	5.3234		4.8975	4.8975		15,752.1268	15,752.1268	5.0946		15,879.4907
Total	11.2276	124.4475	80.0986	0.1626	24.6944	5.3234	30.0178	10.6464	4.8975	15.5439		15,752.1268	15,752.1268	5.0946		15,879.4907

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

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					11.1125	0.0000	11.1125	4.7909	0.0000	4.7909			0.0000			0.0000
Off-Road	7.5451	78.5570	82.1173	0.1626		3.3075	3.3075		3.0512	3.0512	0.0000	15,752.1267	15,752.1267	5.0946		15,879.4907
Total	7.5451	78.5570	82.1173	0.1626	11.1125	3.3075	14.4200	4.7909	3.0512	7.8421	0.0000	15,752.1267	15,752.1267	5.0946		15,879.4907

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

3.4 Building Construction - 2021

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	7.8969	72.5664	69.4463	0.1119		4.0160	4.0160		3.7721	3.7721		10,624.7740	10,624.7740	2.5971		10,689.7012
Total	7.8969	72.5664	69.4463	0.1119		4.0160	4.0160		3.7721	3.7721		10,624.7740	10,624.7740	2.5971		10,689.7012

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.0779	2.8535	0.4380	7.3400e-003	0.1760	7.6500e-003	0.1836	0.0507	7.3200e-003	0.0580		768.8932	768.8932	0.0594		770.3793
Worker	0.4605	0.2444	3.3220	8.4600e-003	0.8051	5.8400e-003	0.8109	0.2135	5.3800e-003	0.2189		842.4715	842.4715	0.0248		843.0906
Total	0.5383	3.0979	3.7601	0.0158	0.9810	0.0135	0.9945	0.2642	0.0127	0.2769		1,611.3647	1,611.3647	0.0842		1,613.4699

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	6.1394	55.2289	70.4331	0.1119		2.9664	2.9664		2.7909	2.7909	0.0000	10,624.7740	10,624.7740	2.5971		10,689.7012
Total	6.1394	55.2289	70.4331	0.1119		2.9664	2.9664		2.7909	2.7909	0.0000	10,624.7740	10,624.7740	2.5971		10,689.7012

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.0779	2.8535	0.4380	7.3400e-003	0.1760	7.6500e-003	0.1836	0.0507	7.3200e-003	0.0580		768.8932	768.8932	0.0594		770.3793
Worker	0.4605	0.2444	3.3220	8.4600e-003	0.8051	5.8400e-003	0.8109	0.2135	5.3800e-003	0.2189		842.4715	842.4715	0.0248		843.0906
Total	0.5383	3.0979	3.7601	0.0158	0.9810	0.0135	0.9945	0.2642	0.0127	0.2769		1,611.3647	1,611.3647	0.0842		1,613.4699

3.5 Paving - 2021

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	3.7667	38.7573	43.9597	0.0684		2.0332	2.0332		1.8705	1.8705		6,621.6326	6,621.6326	2.1416		6,675.1719
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.7667	38.7573	43.9597	0.0684		2.0332	2.0332		1.8705	1.8705		6,621.6326	6,621.6326	2.1416		6,675.1719

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.5 Paving - 2021

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
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
Worker	0.0705	0.0374	0.5085	1.3000e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		128.9497	128.9497	3.7900e-003		129.0445
Total	0.0705	0.0374	0.5085	1.3000e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		128.9497	128.9497	3.7900e-003		129.0445

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	2.8013	27.1706	46.5757	0.0684		1.3993	1.3993		1.2903	1.2903	0.0000	6,621.6326	6,621.6326	2.1416		6,675.1719
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.8013	27.1706	46.5757	0.0684		1.3993	1.3993		1.2903	1.2903	0.0000	6,621.6326	6,621.6326	2.1416		6,675.1719

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.5 Paving - 2021

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
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
Worker	0.0705	0.0374	0.5085	1.3000e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		128.9497	128.9497	3.7900e-003		129.0445
Total	0.0705	0.0374	0.5085	1.3000e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		128.9497	128.9497	3.7900e-003		129.0445

3.6 Architectural Coating - 2021

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	168.1386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6567	4.5805	5.4527	8.9100e-003		0.2823	0.2823		0.2823	0.2823		844.3442	844.3442	0.0579		845.7927
Total	168.7953	4.5805	5.4527	8.9100e-003		0.2823	0.2823		0.2823	0.2823		844.3442	844.3442	0.0579		845.7927

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.6 Architectural Coating - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

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	168.1386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4694	3.1964	5.4674	8.9100e-003		0.1931	0.1931		0.1931	0.1931	0.0000	844.3441	844.3441	0.0579		845.7927
Total	168.6080	3.1964	5.4674	8.9100e-003		0.1931	0.1931		0.1931	0.1931	0.0000	844.3441	844.3441	0.0579		845.7927

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

3.6 Architectural Coating - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

	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	5.3783	14.2203	53.8685	0.1511	12.9880	0.1430	13.1310	3.4702	0.1337	3.6039		15,253.03 65	15,253.03 65	0.8067		15,273.20 41
Unmitigated	5.4745	14.8134	57.1795	0.1617	13.9506	0.1525	14.1031	3.7274	0.1425	3.8700		16,314.02 27	16,314.02 27	0.8491		16,335.24 98

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	197.70	214.80	182.10	580,079	540,054
Single Family Housing	2,010.72	2,032.02	1821.15	5,822,887	5,421,108
Total	2,208.42	2,246.82	2,003.25	6,402,966	5,961,162

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600
Single Family Housing	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.1666	1.4232	0.6056	9.0800e-003		0.1151	0.1151		0.1151	0.1151		1,816.8722	1,816.8722	0.0348	0.0333	1,827.6690
NaturalGas Unmitigated	0.1771	1.5132	0.6439	9.6600e-003		0.1223	0.1223		0.1223	0.1223		1,931.6777	1,931.6777	0.0370	0.0354	1,943.1567

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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	1161.9	0.0125	0.1071	0.0456	6.8000e-004		8.6600e-003	8.6600e-003		8.6600e-003	8.6600e-003		136.6942	136.6942	2.6200e-003	2.5100e-003	137.5065
Single Family Housing	15257.4	0.1645	1.4061	0.5983	8.9700e-003		0.1137	0.1137		0.1137	0.1137		1,794.9834	1,794.9834	0.0344	0.0329	1,805.6501
Total		0.1771	1.5132	0.6439	9.6500e-003		0.1223	0.1223		0.1223	0.1223		1,931.6777	1,931.6777	0.0370	0.0354	1,943.1567

Mitigated

	Natural Gas 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	1.10199	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6456	129.6456	2.4800e-003	2.3800e-003	130.4160
Single Family Housing	14.3414	0.1547	1.3217	0.5624	8.4400e-003		0.1069	0.1069		0.1069	0.1069		1,687.2266	1,687.2266	0.0323	0.0309	1,697.2529
Total		0.1665	1.4232	0.6056	9.0900e-003		0.1151	0.1151		0.1151	0.1151		1,816.8722	1,816.8722	0.0348	0.0333	1,827.6690

6.0 Area Detail

6.1 Mitigation Measures Area

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	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	10.6337	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228
Unmitigated	11.8385	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

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	2.1261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.8468					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2594	2.2170	0.9434	0.0142		0.1793	0.1793		0.1793	0.1793	0.0000	2,830.2353	2,830.2353	0.0543	0.0519	2,847.0540
Landscaping	0.6062	0.2315	20.0694	1.0600e-003		0.1109	0.1109		0.1109	0.1109		36.0982	36.0982	0.0348		36.9689
Total	11.8385	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228

Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

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	0.9213					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.8468					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2594	2.2170	0.9434	0.0142		0.1793	0.1793		0.1793	0.1793	0.0000	2,830.2353	2,830.2353	0.0543	0.0519	2,847.0540
Landscaping	0.6062	0.2315	20.0694	1.0600e-003		0.1109	0.1109		0.1109	0.1109		36.0982	36.0982	0.0348		36.9689
Total	10.6337	2.4485	21.0128	0.0152		0.2901	0.2901		0.2901	0.2901	0.0000	2,866.3335	2,866.3335	0.0891	0.0519	2,884.0228

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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
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Baldwin Zacharias Master Plan Construction - Stanislaus County, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Warehouse Project Construction and Operations 2021 (Summer Daily)

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

**Baldwin Zacharias MP Industrial Warehouse
Stanislaus County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	500.00	1000sqft	11.48	500,000.00	0
Parking Lot	11.48	Acre	11.48	500,068.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2022
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	790	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

Project Characteristics -

Land Use - Common sized warehouse project

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 10th Ed code 150

Area Coating - Rule 4601 Architectural Coatings

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	WD_TR	1.68	1.74

2.0 Emissions Summary

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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	11.7646	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193
Energy	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3
Mobile	2.0366	15.7625	20.3067	0.0868	5.4519	0.0741	5.5260	1.4628	0.0698	1.5326		8,852.378 7	8,852.378 7	0.5103		8,865.135 6
Total	14.0683	18.1912	22.3987	0.1014	5.4519	0.2588	5.7108	1.4628	0.2546	1.7173		11,766.26 98	11,766.26 98	0.5664	0.0534	11,796.34 93

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	11.7646	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193
Energy	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3
Mobile	1.9868	15.2653	19.1467	0.0816	5.0758	0.0695	5.1453	1.3619	0.0655	1.4274		8,318.698 5	8,318.698 5	0.4974		8,331.133 1
Total	14.0185	17.6939	21.2387	0.0962	5.0758	0.2542	5.3300	1.3619	0.2502	1.6121		11,232.58 97	11,232.58 97	0.5535	0.0534	11,262.34 68

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.35	2.73	5.18	5.18	6.90	1.77	6.67	6.90	1.70	6.13	0.00	4.54	4.54	2.28	0.00	4.53

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	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	3/4/2021	5	35	
3	Building Construction	Building Construction	3/5/2021	8/4/2022	5	370	
4	Paving	Paving	8/5/2022	9/1/2022	5	20	
5	Architectural Coating	Architectural Coating	9/2/2022	9/29/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 11.48

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 750,000; Non-Residential Outdoor: 250,000; Striped Parking Area: 30,004 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	420.00	164.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	84.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	0.4656	2.0175	20.8690	0.0380	8.1298	0.0621	8.1919	4.4688	0.0621	4.5309	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

3.3 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	0.7616	3.3000	32.9991	0.0620	3.9030	0.1015	4.0045	1.6184	0.1015	1.7200	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

3.4 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.4910	17.9989	2.7629	0.0463	1.1100	0.0483	1.1583	0.3195	0.0462	0.3657		4,849.9417	4,849.9417	0.3750		4,859.3156
Worker	1.9735	1.0472	14.2373	0.0363	3.4502	0.0250	3.4752	0.9152	0.0231	0.9382		3,610.5923	3,610.5923	0.1061		3,613.2454
Total	2.4645	19.0462	17.0002	0.0825	4.5602	0.0733	4.6335	1.2347	0.0692	1.3039		8,460.5340	8,460.5340	0.4811		8,472.5610

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.4910	17.9989	2.7629	0.0463	1.1100	0.0483	1.1583	0.3195	0.0462	0.3657		4,849.9417	4,849.9417	0.3750		4,859.3156
Worker	1.9735	1.0472	14.2373	0.0363	3.4502	0.0250	3.4752	0.9152	0.0231	0.9382		3,610.5923	3,610.5923	0.1061		3,613.2454
Total	2.4645	19.0462	17.0002	0.0825	4.5602	0.0733	4.6335	1.2347	0.0692	1.3039		8,460.5340	8,460.5340	0.4811		8,472.5610

3.4 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

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.4 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
Vendor	0.4568	17.1085	2.5555	0.0458	1.1099	0.0418	1.1517	0.3195	0.0400	0.3594		4,804.3313	4,804.3313	0.3613		4,813.3627
Worker	1.8284	0.9361	13.0073	0.0350	3.4502	0.0243	3.4745	0.9152	0.0223	0.9375		3,481.8016	3,481.8016	0.0949		3,484.1746
Total	2.2851	18.0446	15.5628	0.0808	4.5601	0.0660	4.6261	1.2346	0.0623	1.2969		8,286.1330	8,286.1330	0.4562		8,297.5373

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.4 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
Vendor	0.4568	17.1085	2.5555	0.0458	1.1099	0.0418	1.1517	0.3195	0.0400	0.3594		4,804.3313	4,804.3313	0.3613		4,813.3627
Worker	1.8284	0.9361	13.0073	0.0350	3.4502	0.0243	3.4745	0.9152	0.0223	0.9375		3,481.8016	3,481.8016	0.0949		3,484.1746
Total	2.2851	18.0446	15.5628	0.0808	4.5601	0.0660	4.6261	1.2346	0.0623	1.2969		8,286.1330	8,286.1330	0.4562		8,297.5373

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	1.5039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.6067	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

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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	0.0000	0.0000	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
Worker	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348
Total	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.5039					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.7844	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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	0.0000	0.0000	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
Worker	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348
Total	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348

3.6 Architectural Coating - 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					
Archit. Coating	161.0676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	161.2722	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.6 Architectural Coating - 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
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
Worker	0.3657	0.1872	2.6015	6.9900e-003	0.6900	4.8500e-003	0.6949	0.1830	4.4700e-003	0.1875		696.3603	696.3603	0.0190		696.8349
Total	0.3657	0.1872	2.6015	6.9900e-003	0.6900	4.8500e-003	0.6949	0.1830	4.4700e-003	0.1875		696.3603	696.3603	0.0190		696.8349

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	161.0676					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	161.0974	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

3.6 Architectural Coating - 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
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
Worker	0.3657	0.1872	2.6015	6.9900e-003	0.6900	4.8500e-003	0.6949	0.1830	4.4700e-003	0.1875		696.3603	696.3603	0.0190		696.8349
Total	0.3657	0.1872	2.6015	6.9900e-003	0.6900	4.8500e-003	0.6949	0.1830	4.4700e-003	0.1875		696.3603	696.3603	0.0190		696.8349

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

	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	1.9868	15.2653	19.1467	0.0816	5.0758	0.0695	5.1453	1.3619	0.0655	1.4274		8,318.6985	8,318.6985	0.4974		8,331.1331
Unmitigated	2.0366	15.7625	20.3067	0.0868	5.4519	0.0741	5.5260	1.4628	0.0698	1.5326		8,852.3787	8,852.3787	0.5103		8,865.1356

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	870.00	75.00	30.00	1,858,060	1,729,854
Total	870.00	75.00	30.00	1,858,060	1,729,854

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Unrefrigerated Warehouse-No Rail	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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	lb/day										lb/day					
NaturalGas Mitigated	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.7792	2,913.7792	0.0559	0.0534	2,931.0943
NaturalGas Unmitigated	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.7792	2,913.7792	0.0559	0.0534	2,931.0943

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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					
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
Unrefrigerated Warehouse-No Rail	24767.1	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3
Total		0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3

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					
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
Unrefrigerated Warehouse-No Rail	24.7671	0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3
Total		0.2671	2.4282	2.0397	0.0146		0.1845	0.1845		0.1845	0.1845		2,913.779 2	2,913.779 2	0.0559	0.0534	2,931.094 3

6.0 Area Detail

6.1 Mitigation Measures Area

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	11.7646	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193
Unmitigated	11.7646	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193

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	0.8826					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.8771					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8600e-003	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193
Total	11.7645	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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	0.8826					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.8771					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8600e-003	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193
Total	11.7645	4.8000e-004	0.0523	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1119	0.1119	3.0000e-004		0.1193

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Baldwin Zacharias MP Industrial Warehouse - Stanislaus County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output

Commercial Center Construction and Operations 2021 (Summer Daily)

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

Baldwin Zacharias Community Commercial
Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	350.00	1000sqft	8.03	350,000.00	0
Parking Lot	13.97	Acre	13.97	608,533.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2022
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	790	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Project Description
- Construction Phase -
- Architectural Coating - Rule 4601 Architectural Coatings
- Vehicle Trips - ITE 10th Ed Trip Gen Rate
- Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure
- Mobile Land Use Mitigation -
- Area Mitigation - Rule 4601 Architectural Coatings

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	42.70	37.75

2.0 Emissions Summary

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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	9.1119	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642
Mobile	32.4379	239.0472	252.1740	1.0473	60.7486	0.8814	61.6299	16.2991	0.8303	17.1294		106,923.3961	106,923.3961	8.0827		107,125.4625
Total	41.6605	240.0535	253.0562	1.0533	60.7486	0.9580	61.7065	16.2991	0.9069	17.2060		108,130.5668	108,130.5668	8.1060	0.0221	108,339.8116

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	8.3563	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Energy	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642
Mobile	31.8830	233.5066	239.2488	0.9888	56.5569	0.8302	57.3871	15.1745	0.7821	15.9565		100,976.8277	100,976.8277	7.9390		101,175.3021
Total	40.3500	234.5128	240.1310	0.9948	56.5569	0.9068	57.4637	15.1745	0.8586	16.0331		102,183.9985	102,183.9985	7.9623	0.0221	102,389.6512

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.15	2.31	5.11	5.55	6.90	5.34	6.88	6.90	5.32	6.82	0.00	5.50	5.50	1.77	0.00	5.49

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	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	3/4/2021	5	35	
3	Building Construction	Building Construction	3/5/2021	8/4/2022	5	370	
4	Paving	Paving	8/5/2022	9/1/2022	5	20	
5	Architectural Coating	Architectural Coating	9/2/2022	9/29/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 13.97

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 525,000; Non-Residential Outdoor: 175,000; Striped Parking Area: 36,512 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	368.00	157.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	74.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	0.4656	2.0175	20.8690	0.0380	8.1298	0.0621	8.1919	4.4688	0.0621	4.5309	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

3.3 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	0.7616	3.3000	32.9991	0.0620	3.9030	0.1015	4.0045	1.6184	0.1015	1.7200	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

3.4 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.4701	17.2307	2.6450	0.0443	1.0626	0.0462	1.1088	0.3059	0.0442	0.3501		4,642.9320	4,642.9320	0.3590		4,651.9058
Worker	1.7292	0.9176	12.4745	0.0318	3.0230	0.0219	3.0450	0.8019	0.0202	0.8221		3,163.5666	3,163.5666	0.0930		3,165.8912
Total	2.1992	18.1483	15.1196	0.0761	4.0856	0.0681	4.1538	1.1077	0.0644	1.1721		7,806.4986	7,806.4986	0.4519		7,817.7970

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.4701	17.2307	2.6450	0.0443	1.0626	0.0462	1.1088	0.3059	0.0442	0.3501		4,642.9320	4,642.9320	0.3590		4,651.9058
Worker	1.7292	0.9176	12.4745	0.0318	3.0230	0.0219	3.0450	0.8019	0.0202	0.8221		3,163.5666	3,163.5666	0.0930		3,165.8912
Total	2.1992	18.1483	15.1196	0.0761	4.0856	0.0681	4.1538	1.1077	0.0644	1.1721		7,806.4986	7,806.4986	0.4519		7,817.7970

3.4 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

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.4 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
Vendor	0.4373	16.3783	2.4465	0.0439	1.0625	0.0400	1.1025	0.3058	0.0383	0.3441		4,599.268 4	4,599.268 4	0.3458		4,607.914 3
Worker	1.6020	0.8202	11.3969	0.0306	3.0230	0.0213	3.0443	0.8019	0.0196	0.8214		3,050.721 4	3,050.721 4	0.0832		3,052.800 6
Total	2.0393	17.1985	13.8433	0.0745	4.0856	0.0613	4.1468	1.1077	0.0578	1.1655		7,649.989 8	7,649.989 8	0.4290		7,660.714 9

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.4 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
Vendor	0.4373	16.3783	2.4465	0.0439	1.0625	0.0400	1.1025	0.3058	0.0383	0.3441		4,599.2684	4,599.2684	0.3458		4,607.9143
Worker	1.6020	0.8202	11.3969	0.0306	3.0230	0.0213	3.0443	0.8019	0.0196	0.8214		3,050.7214	3,050.7214	0.0832		3,052.8006
Total	2.0393	17.1985	13.8433	0.0745	4.0856	0.0613	4.1468	1.1077	0.0578	1.1655		7,649.9898	7,649.9898	0.4290		7,660.7149

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	1.8301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.9329	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

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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	0.0000	0.0000	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
Worker	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348
Total	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.8301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1105	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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	0.0000	0.0000	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
Worker	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348
Total	0.0653	0.0334	0.4646	1.2500e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		124.3501	124.3501	3.3900e-003		124.4348

3.6 Architectural Coating - 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					
Archit. Coating	118.1387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	118.3433	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.6 Architectural Coating - 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
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
Worker	0.3221	0.1649	2.2918	6.1600e-003	0.6079	4.2700e-003	0.6122	0.1612	3.9300e-003	0.1652		613.4603	613.4603	0.0167		613.8784
Total	0.3221	0.1649	2.2918	6.1600e-003	0.6079	4.2700e-003	0.6122	0.1612	3.9300e-003	0.1652		613.4603	613.4603	0.0167		613.8784

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	118.1387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	118.1684	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

3.6 Architectural Coating - 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
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
Worker	0.3221	0.1649	2.2918	6.1600e-003	0.6079	4.2700e-003	0.6122	0.1612	3.9300e-003	0.1652		613.4603	613.4603	0.0167		613.8784
Total	0.3221	0.1649	2.2918	6.1600e-003	0.6079	4.2700e-003	0.6122	0.1612	3.9300e-003	0.1652		613.4603	613.4603	0.0167		613.8784

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

	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	31.8830	233.5066	239.2488	0.9888	56.5569	0.8302	57.3871	15.1745	0.7821	15.9565		100,976.8277	100,976.8277	7.9390		101,175.3021
Unmitigated	32.4379	239.0472	252.1740	1.0473	60.7486	0.8814	61.6299	16.2991	0.8303	17.1294		106,923.3961	106,923.3961	8.0827		107,125.4625

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	13,212.50	16,142.00	7385.00	22,439,672	20,891,334
Total	13,212.50	16,142.00	7,385.00	22,439,672	20,891,334

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Regional Shopping Center	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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	lb/day										lb/day					
NaturalGas Mitigated	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642
NaturalGas Unmitigated	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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					
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
Regional Shopping Center	10260.3	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642
Total		0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642

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					
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
Regional Shopping Center	10.2603	0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642
Total		0.1107	1.0059	0.8450	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.0911	1,207.0911	0.0231	0.0221	1,214.2642

6.0 Area Detail

6.1 Mitigation Measures Area

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	8.3563	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Unmitigated	9.1119	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849

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	1.4029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.7055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	9.1119	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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	0.6473					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.7055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849
Total	8.3563	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0849

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Baldwin Zacharias Community Commercial - Stanislaus County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output

School Project Construction and Operations 2021 (Summer Daily)

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

Baldwin Zacharias MP Middle School
Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	900.00	Student	2.43	105,805.52	0
Other Non-Asphalt Surfaces	11.57	Acre	11.57	503,989.20	0
Parking Lot	2.00	Acre	2.00	87,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2024
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

Project Characteristics - TID Intensity Factor for 2030

Land Use - 16 acre site

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Edition Trip Gen.

Area Coating - Rule 4601 Architectural Coatings

Energy Use - 2019 Title 24 reduces non-residential energy use by 10.7% for electricity and 1% for NG

Construction Off-road Equipment Mitigation - Tier 4 Equipment Mitigation

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings Compliance

Energy Mitigation -

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - Achieve 75% statewide recycling mandate

Fleet Mix - SJVAPCD Residential Fleet Mix 2024

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	65
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblEnergyUse	T24E	2.14	1.91
tblEnergyUse	T24NG	23.19	22.96
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.53	0.53
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.02	9.0000e-004
tblFleetMix	LHD2	4.7610e-003	9.0000e-004

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

tblFleetMix	MCY	4.4200e-003	2.5000e-003
tblFleetMix	MDV	0.11	5.6000e-003
tblFleetMix	MH	7.8100e-004	2.0000e-003
tblFleetMix	MHD	0.03	8.0000e-003
tblFleetMix	OBUS	1.8360e-003	0.00
tblFleetMix	SBUS	8.2200e-004	2.0000e-004
tblFleetMix	UBUS	1.0470e-003	4.3000e-003
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	WD_TR	1.62	2.13

2.0 Emissions Summary

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

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	2.9528	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130
Energy	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325
Mobile	3.5389	8.3503	30.9011	0.0933	9.0538	0.0825	9.1364	2.4086	0.0768	2.4854		9,445.8224	9,445.8224	0.4740		9,457.6716
Total	6.5695	9.0583	31.5882	0.0976	9.0538	0.1366	9.1904	2.4086	0.1309	2.5395		10,294.5127	10,294.5127	0.4908	0.0156	10,311.4171

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	2.7244	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130
Energy	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325
Mobile	3.4898	8.0839	29.1756	0.0874	8.4291	0.0776	8.5067	2.2424	0.0722	2.3146		8,845.6872	8,845.6872	0.4512		8,856.9680
Total	6.2921	8.7919	29.8627	0.0917	8.4291	0.1316	8.5608	2.2424	0.1263	2.3687		9,694.3775	9,694.3775	0.4680	0.0156	9,710.7135

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.22	2.94	5.46	6.08	6.90	3.64	6.85	6.90	3.54	6.73	0.00	5.83	5.83	4.63	0.00	5.83

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	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Paving	Paving	4/20/2024	5/17/2024	5	20	
5	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 13.57

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 158,708; Non-Residential Outdoor: 52,903; Striped Parking Area: 35,467 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
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
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	293.00	114.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	18.0663	1.2660	19.3323	9.9307	1.1647	11.0954		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.2 Site Preparation - 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
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
Worker	0.0727	0.0359	0.5094	1.4400e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		143.6363	143.6363	3.6300e-003		143.7272
Total	0.0727	0.0359	0.5094	1.4400e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		143.6363	143.6363	3.6300e-003		143.7272

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	0.4656	2.0175	20.8690	0.0381	8.1298	0.0621	8.1919	4.4688	0.0621	4.5309	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.2 Site Preparation - 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
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
Worker	0.0727	0.0359	0.5094	1.4400e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		143.6363	143.6363	3.6300e-003		143.7272
Total	0.0727	0.0359	0.5094	1.4400e-003	0.1479	1.0100e-003	0.1489	0.0392	9.3000e-004	0.0402		143.6363	143.6363	3.6300e-003		143.7272

3.3 Grading - 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					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	8.6733	1.4245	10.0978	3.5965	1.3105	4.9070		6,011.4777	6,011.4777	1.9442		6,060.0836

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.3 Grading - 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
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
Worker	0.0808	0.0399	0.5660	1.6000e-003	0.1643	1.1200e-003	0.1654	0.0436	1.0300e-003	0.0446		159.5959	159.5959	4.0400e-003		159.6969
Total	0.0808	0.0399	0.5660	1.6000e-003	0.1643	1.1200e-003	0.1654	0.0436	1.0300e-003	0.0446		159.5959	159.5959	4.0400e-003		159.6969

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	0.7616	3.3000	32.9991	0.0621	3.9030	0.1015	4.0045	1.6184	0.1015	1.7200	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.3 Grading - 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
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
Worker	0.0808	0.0399	0.5660	1.6000e-003	0.1643	1.1200e-003	0.1654	0.0436	1.0300e-003	0.0446		159.5959	159.5959	4.0400e-003		159.6969
Total	0.0808	0.0399	0.5660	1.6000e-003	0.1643	1.1200e-003	0.1654	0.0436	1.0300e-003	0.0446		159.5959	159.5959	4.0400e-003		159.6969

3.4 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

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.4 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
Vendor	0.2203	9.3548	1.4729	0.0311	0.7715	9.2900e-003	0.7808	0.2221	8.8800e-003	0.2309		3,257.8138	3,257.8138	0.1776		3,262.2536
Worker	1.1839	0.5847	8.2925	0.0235	2.4069	0.0165	2.4234	0.6384	0.0152	0.6536		2,338.0803	2,338.0803	0.0591		2,339.5588
Total	1.4042	9.9395	9.7654	0.0546	3.1784	0.0257	3.2041	0.8605	0.0240	0.8845		5,595.8940	5,595.8940	0.2367		5,601.8125

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.4 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
Vendor	0.2203	9.3548	1.4729	0.0311	0.7715	9.2900e-003	0.7808	0.2221	8.8800e-003	0.2309		3,257.8138	3,257.8138	0.1776		3,262.2536
Worker	1.1839	0.5847	8.2925	0.0235	2.4069	0.0165	2.4234	0.6384	0.0152	0.6536		2,338.0803	2,338.0803	0.0591		2,339.5588
Total	1.4042	9.9395	9.7654	0.0546	3.1784	0.0257	3.2041	0.8605	0.0240	0.8845		5,595.8940	5,595.8940	0.2367		5,601.8125

3.4 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

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.4 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
Vendor	0.2138	9.2792	1.3946	0.0308	0.7714	9.1500e-003	0.7806	0.2220	8.7500e-003	0.2308		3,233.4321	3,233.4321	0.1786		3,237.8968
Worker	1.1031	0.5255	7.6552	0.0226	2.4069	0.0161	2.4230	0.6384	0.0148	0.6532		2,248.1038	2,248.1038	0.0532		2,249.4339
Total	1.3169	9.8048	9.0499	0.0534	3.1784	0.0252	3.2036	0.8605	0.0236	0.8840		5,481.5359	5,481.5359	0.2318		5,487.3307

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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.4 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
Vendor	0.2138	9.2792	1.3946	0.0308	0.7714	9.1500e-003	0.7806	0.2220	8.7500e-003	0.2308		3,233.4321	3,233.4321	0.1786		3,237.8968
Worker	1.1031	0.5255	7.6552	0.0226	2.4069	0.0161	2.4230	0.6384	0.0148	0.6532		2,248.1038	2,248.1038	0.0532		2,249.4339
Total	1.3169	9.8048	9.0499	0.0534	3.1784	0.0252	3.2036	0.8605	0.0236	0.8840		5,481.5359	5,481.5359	0.2318		5,487.3307

3.5 Paving - 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2502	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.5 Paving - 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
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
Worker	0.0565	0.0269	0.3919	1.1600e-003	0.1232	8.2000e-004	0.1241	0.0327	7.6000e-004	0.0334		115.0906	115.0906	2.7200e-003		115.1587
Total	0.0565	0.0269	0.3919	1.1600e-003	0.1232	8.2000e-004	0.1241	0.0327	7.6000e-004	0.0334		115.0906	115.0906	2.7200e-003		115.1587

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5425	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.5 Paving - 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
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
Worker	0.0565	0.0269	0.3919	1.1600e-003	0.1232	8.2000e-004	0.1241	0.0327	7.6000e-004	0.0334		115.0906	115.0906	2.7200e-003		115.1587
Total	0.0565	0.0269	0.3919	1.1600e-003	0.1232	8.2000e-004	0.1241	0.0327	7.6000e-004	0.0334		115.0906	115.0906	2.7200e-003		115.1587

3.6 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	44.2058					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	44.3865	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.6 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
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
Worker	0.2221	0.1058	1.5415	4.5400e-003	0.4847	3.2400e-003	0.4879	0.1286	2.9800e-003	0.1315		452.6898	452.6898	0.0107		452.9577
Total	0.2221	0.1058	1.5415	4.5400e-003	0.4847	3.2400e-003	0.4879	0.1286	2.9800e-003	0.1315		452.6898	452.6898	0.0107		452.9577

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	44.2058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	44.2355	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

3.6 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
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
Worker	0.2221	0.1058	1.5415	4.5400e-003	0.4847	3.2400e-003	0.4879	0.1286	2.9800e-003	0.1315		452.6898	452.6898	0.0107		452.9577
Total	0.2221	0.1058	1.5415	4.5400e-003	0.4847	3.2400e-003	0.4879	0.1286	2.9800e-003	0.1315		452.6898	452.6898	0.0107		452.9577

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

	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	3.4898	8.0839	29.1756	0.0874	8.4291	0.0776	8.5067	2.2424	0.0722	2.3146		8,845.687 2	8,845.687 2	0.4512		8,856.968 0
Unmitigated	3.5389	8.3503	30.9011	0.0933	9.0538	0.0825	9.1364	2.4086	0.0768	2.4854		9,445.822 4	9,445.822 4	0.4740		9,457.671 6

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior High School	1,917.00	0.00	0.00	3,078,420	2,866,009
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,917.00	0.00	0.00	3,078,420	2,866,009

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior High School	0.527700	0.209000	0.167500	0.005600	0.000900	0.000900	0.008000	0.021400	0.000000	0.004300	0.002500	0.000200	0.002000
Other Non-Asphalt Surfaces	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Parking Lot	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781

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	lb/day										lb/day					
NaturalGas Mitigated	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325
NaturalGas Unmitigated	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

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					
Junior High School	7212.17	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325
Other Non-Asphalt Surfaces	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
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		0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325

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					
Junior High School	7.21217	0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325
Other Non-Asphalt Surfaces	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
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		0.0778	0.7071	0.5939	4.2400e-003		0.0537	0.0537		0.0537	0.0537		848.4904	848.4904	0.0163	0.0156	853.5325

6.0 Area Detail

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	2.7244	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130
Unmitigated	2.9528	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

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	0.4706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6000e-003	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130
Total	2.9528	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130

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	0.2422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.6000e-003	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130
Total	2.7244	8.5000e-004	0.0931	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1999	0.1999	5.2000e-004		0.2130

7.0 Water Detail

Baldwin Zacharias MP Middle School - Stanislaus County, Summer

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

**CalEEMod Output
Baldwin Master Plan
Construction 2021**

Baldwin MP Const and Ops - Stanislaus County, Annual

**Baldwin MP Const and Ops
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	305.00	Dwelling Unit	65.90	549,000.00	872

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2021
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin MP Const and Ops - Stanislaus County, Annual

Project Characteristics - TID Intensity Rates

Land Use - Project description acreage

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 10th Ed Trip Generation Rates

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2019 Title 24 Compliance w/o solar

Water Mitigation - CalGreen and MWELO requirements

Waste Mitigation - Achieve the CalRecycle 75% Mandate

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Baldwin MP Const and Ops - Stanislaus County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.6820e-003	9.0000e-004
tblFleetMix	MCY	4.7430e-003	2.6000e-003
tblFleetMix	MDV	0.13	0.05

Baldwin MP Const and Ops - Stanislaus County, Annual

tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	SBUS	8.5600e-004	9.0000e-004
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblLandUse	LotAcreage	99.03	65.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	65.90	0.00
tblWoodstoves	NumberNoncatalytic	65.90	0.00

2.0 Emissions Summary

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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					
2021	0.4507	4.5534	3.2965	6.7700e-003	0.9109	0.2043	1.1152	0.4160	0.1890	0.6050	0.0000	597.5273	597.5273	0.1552	0.0000	601.4061
2022	0.2889	2.5173	2.5819	5.7700e-003	0.1426	0.1071	0.2498	0.0386	0.1008	0.1393	0.0000	511.9876	511.9876	0.0839	0.0000	514.0844
2023	0.2639	2.2561	2.5198	5.7000e-003	0.1426	0.0921	0.2348	0.0386	0.0867	0.1252	0.0000	505.6735	505.6735	0.0805	0.0000	507.6848
2024	0.2489	2.1440	2.4983	5.7000e-003	0.1437	0.0815	0.2252	0.0389	0.0766	0.1155	0.0000	505.1523	505.1523	0.0805	0.0000	507.1637
2025	0.2133	1.8547	2.3644	5.2000e-003	0.1217	0.0674	0.1891	0.0329	0.0632	0.0961	0.0000	460.8681	460.8681	0.0804	0.0000	462.8787
2026	2.2566	0.1777	0.3139	5.3000e-004	8.4500e-003	8.4700e-003	0.0169	2.2500e-003	7.9500e-003	0.0102	0.0000	46.8257	46.8257	0.0107	0.0000	47.0928
Maximum	2.2566	4.5534	3.2965	6.7700e-003	0.9109	0.2043	1.1152	0.4160	0.1890	0.6050	0.0000	597.5273	597.5273	0.1552	0.0000	601.4061

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2.1 Overall Construction

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					
2021	0.1063	0.5699	3.4565	6.7700e-003	0.4498	0.0101	0.4599	0.1980	0.0100	0.2080	0.0000	597.5267	597.5267	0.1552	0.0000	601.4056
2022	0.1097	0.7778	2.7245	5.7700e-003	0.1426	7.2400e-003	0.1499	0.0386	7.1300e-003	0.0457	0.0000	511.9873	511.9873	0.0839	0.0000	514.0840
2023	0.1020	0.6765	2.6779	5.7000e-003	0.1426	6.4600e-003	0.1491	0.0386	6.3800e-003	0.0450	0.0000	505.6732	505.6732	0.0805	0.0000	507.6845
2024	0.0991	0.6756	2.6678	5.7000e-003	0.1437	6.4900e-003	0.1502	0.0389	6.4100e-003	0.0453	0.0000	505.1520	505.1520	0.0805	0.0000	507.1633
2025	0.0866	0.5822	2.5734	5.2000e-003	0.1217	6.1900e-003	0.1279	0.0329	6.1300e-003	0.0390	0.0000	460.8678	460.8678	0.0804	0.0000	462.8784
2026	2.2415	0.0254	0.3569	5.3000e-004	8.4500e-003	7.8000e-004	9.2300e-003	2.2500e-003	7.8000e-004	3.0200e-003	0.0000	46.8256	46.8256	0.0107	0.0000	47.0928
Maximum	2.2415	0.7778	3.4565	6.7700e-003	0.4498	0.0101	0.4599	0.1980	0.0100	0.2080	0.0000	597.5267	597.5267	0.1552	0.0000	601.4056

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	26.25	75.51	-6.50	0.00	31.37	93.36	48.49	38.44	92.97	64.64	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)
1	1-1-2021	3-31-2021	1.5065	0.1034
2	4-1-2021	6-30-2021	1.6489	0.1367
3	7-1-2021	9-30-2021	1.0620	0.2027
4	10-1-2021	12-31-2021	0.7854	0.2344
5	1-1-2022	3-31-2022	0.6953	0.2209

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6	4-1-2022	6-30-2022	0.7014	0.2217
7	7-1-2022	9-30-2022	0.7091	0.2241
8	10-1-2022	12-31-2022	0.7107	0.2258
9	1-1-2023	3-31-2023	0.6244	0.1938
10	4-1-2023	6-30-2023	0.6303	0.1949
11	7-1-2023	9-30-2023	0.6372	0.1971
12	10-1-2023	12-31-2023	0.6383	0.1981
13	1-1-2024	3-31-2024	0.5949	0.1934
14	4-1-2024	6-30-2024	0.5939	0.1925
15	7-1-2024	9-30-2024	0.6005	0.1946
16	10-1-2024	12-31-2024	0.6014	0.1956
17	1-1-2025	3-31-2025	0.5514	0.1890
18	4-1-2025	6-30-2025	0.5566	0.1902
19	7-1-2025	9-30-2025	0.5627	0.1923
20	10-1-2025	12-31-2025	0.3958	0.0979
21	1-1-2026	3-31-2026	1.1704	1.0280
22	4-1-2026	6-30-2026	1.2629	1.2389
		Highest	1.6489	1.2389

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1200e-003	2.4200e-003	136.7023
Energy	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	895.5081	895.5081	0.0348	0.0139	900.5094
Mobile	1.0658	3.8143	12.8546	0.0356	3.1283	0.0373	3.1655	0.8378	0.0349	0.8726	0.0000	3,256.8985	3,256.8985	0.1850	0.0000	3,261.5246
Waste						0.0000	0.0000		0.0000	0.0000	63.7229	0.0000	63.7229	3.7659	0.0000	157.8708
Water						0.0000	0.0000		0.0000	0.0000	6.3045	26.6246	32.9291	0.6490	0.0156	53.8137
Total	3.5584	4.3220	15.3291	0.0388	3.1283	0.0887	3.2170	0.8378	0.0863	0.9241	70.0274	4,314.8588	4,384.8862	4.6409	0.0319	4,510.4208

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1200e-003	2.4200e-003	136.7023
Energy	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	866.2222	866.2222	0.0341	0.0134	871.0520
Mobile	1.0434	3.6534	12.1653	0.0333	2.9124	0.0350	2.9474	0.7800	0.0327	0.8127	0.0000	3,045.4277	3,045.4277	0.1762	0.0000	3,049.8316
Waste						0.0000	0.0000		0.0000	0.0000	47.7922	0.0000	47.7922	2.8244	0.0000	118.4031
Water						0.0000	0.0000		0.0000	0.0000	5.0436	21.2997	26.3433	0.5192	0.0125	43.0509
Total	3.5333	4.1390	14.6304	0.0363	2.9124	0.0846	2.9970	0.7800	0.0823	0.8623	52.8358	4,068.7771	4,121.6129	3.5601	0.0283	4,219.0399

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.70	4.23	4.56	6.35	6.90	4.62	6.84	6.90	4.58	6.68	24.55	5.70	6.00	23.29	11.38	6.46

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	2/25/2021	5	40	
2	Grading	Grading	2/26/2021	7/29/2021	5	110	
3	Building Construction	Building Construction	7/30/2021	10/30/2025	5	1110	
4	Paving	Paving	10/31/2025	2/12/2026	5	75	
5	Architectural Coating	Architectural Coating	2/13/2026	5/28/2026	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 0

Residential Indoor: 1,111,725; Residential Outdoor: 370,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	33.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	0.8099	0.4231	7.6000e-004		0.0409	0.0409		0.0376	0.0376	0.0000	66.8714	66.8714	0.0216	0.0000	67.4121
Total	0.0778	0.8099	0.4231	7.6000e-004	0.3613	0.0409	0.4022	0.1986	0.0376	0.2362	0.0000	66.8714	66.8714	0.0216	0.0000	67.4121

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3.2 Site Preparation - 2021

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	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649
Total	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649

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					0.1626	0.0000	0.1626	0.0894	0.0000	0.0894	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.0404	0.4174	7.6000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	66.8714	66.8714	0.0216	0.0000	67.4120
Total	9.3100e-003	0.0404	0.4174	7.6000e-004	0.1626	1.2400e-003	0.1638	0.0894	1.2400e-003	0.0906	0.0000	66.8714	66.8714	0.0216	0.0000	67.4120

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3.2 Site Preparation - 2021

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	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649
Total	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649

3.3 Grading - 2021

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					0.4770	0.0000	0.4770	0.1978	0.0000	0.1978	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2305	2.5520	1.6983	3.4100e-003		0.1092	0.1092		0.1005	0.1005	0.0000	299.7224	299.7224	0.0969	0.0000	302.1458
Total	0.2305	2.5520	1.6983	3.4100e-003	0.4770	0.1092	0.5862	0.1978	0.1005	0.2983	0.0000	299.7224	299.7224	0.0969	0.0000	302.1458

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3.3 Grading - 2021

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	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373
Total	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373

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					0.2147	0.0000	0.2147	0.0890	0.0000	0.0890	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0419	0.1815	1.8150	3.4100e-003		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003	0.0000	299.7220	299.7220	0.0969	0.0000	302.1455
Total	0.0419	0.1815	1.8150	3.4100e-003	0.2147	5.5800e-003	0.2203	0.0890	5.5800e-003	0.0946	0.0000	299.7220	299.7220	0.0969	0.0000	302.1455

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3.3 Grading - 2021

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	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373
Total	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373

3.4 Building Construction - 2021

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					
Off-Road	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341
Total	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341

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3.4 Building Construction - 2021

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	5.5900e-003	0.2035	0.0334	5.1000e-004	0.0121	5.5000e-004	0.0127	3.5000e-003	5.2000e-004	4.0200e-003	0.0000	48.5146	48.5146	4.0100e-003	0.0000	48.6149
Worker	0.0253	0.0166	0.1790	4.8000e-004	0.0488	3.6000e-004	0.0491	0.0130	3.4000e-004	0.0133	0.0000	43.4655	43.4655	1.2600e-003	0.0000	43.4970
Total	0.0309	0.2200	0.2124	9.9000e-004	0.0609	9.1000e-004	0.0618	0.0165	8.6000e-004	0.0173	0.0000	91.9801	91.9801	5.2700e-003	0.0000	92.1119

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					
Off-Road	0.0182	0.1240	0.9690	1.4900e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	128.5585	128.5585	0.0310	0.0000	129.3339
Total	0.0182	0.1240	0.9690	1.4900e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	128.5585	128.5585	0.0310	0.0000	129.3339

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3.4 Building Construction - 2021

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	5.5900e-003	0.2035	0.0334	5.1000e-004	0.0121	5.5000e-004	0.0127	3.5000e-003	5.2000e-004	4.0200e-003	0.0000	48.5146	48.5146	4.0100e-003	0.0000	48.6149
Worker	0.0253	0.0166	0.1790	4.8000e-004	0.0488	3.6000e-004	0.0491	0.0130	3.4000e-004	0.0133	0.0000	43.4655	43.4655	1.2600e-003	0.0000	43.4970
Total	0.0309	0.2200	0.2124	9.9000e-004	0.0609	9.1000e-004	0.0618	0.0165	8.6000e-004	0.0173	0.0000	91.9801	91.9801	5.2700e-003	0.0000	92.1119

3.4 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	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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3.4 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	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	0.0122	0.4526	0.0724	1.1800e-003	0.0284	1.1100e-003	0.0295	8.2000e-003	1.0600e-003	9.2600e-003	0.0000	112.5624	112.5624	9.0600e-003	0.0000	112.7888
Worker	0.0549	0.0347	0.3822	1.0900e-003	0.1143	8.3000e-004	0.1151	0.0304	7.6000e-004	0.0311	0.0000	98.1824	98.1824	2.6400e-003	0.0000	98.2485
Total	0.0671	0.4873	0.4547	2.2700e-003	0.1426	1.9400e-003	0.1446	0.0386	1.8200e-003	0.0404	0.0000	210.7448	210.7448	0.0117	0.0000	211.0373

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					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

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3.4 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	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	0.0122	0.4526	0.0724	1.1800e-003	0.0284	1.1100e-003	0.0295	8.2000e-003	1.0600e-003	9.2600e-003	0.0000	112.5624	112.5624	9.0600e-003	0.0000	112.7888
Worker	0.0549	0.0347	0.3822	1.0900e-003	0.1143	8.3000e-004	0.1151	0.0304	7.6000e-004	0.0311	0.0000	98.1824	98.1824	2.6400e-003	0.0000	98.2485
Total	0.0671	0.4873	0.4547	2.2700e-003	0.1426	1.9400e-003	0.1446	0.0386	1.8200e-003	0.0404	0.0000	210.7448	210.7448	0.0117	0.0000	211.0373

3.4 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	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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3.4 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	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	8.4400e-003	0.3550	0.0594	1.1500e-003	0.0284	3.5000e-004	0.0287	8.2000e-003	3.4000e-004	8.5300e-003	0.0000	109.8155	109.8155	6.4000e-003	0.0000	109.9756
Worker	0.0510	0.0310	0.3487	1.0500e-003	0.1143	8.0000e-004	0.1151	0.0304	7.4000e-004	0.0311	0.0000	94.5119	94.5119	2.3600e-003	0.0000	94.5709
Total	0.0594	0.3860	0.4081	2.2000e-003	0.1426	1.1500e-003	0.1438	0.0386	1.0800e-003	0.0396	0.0000	204.3274	204.3274	8.7600e-003	0.0000	204.5465

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					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

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3.4 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	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	8.4400e-003	0.3550	0.0594	1.1500e-003	0.0284	3.5000e-004	0.0287	8.2000e-003	3.4000e-004	8.5300e-003	0.0000	109.8155	109.8155	6.4000e-003	0.0000	109.9756
Worker	0.0510	0.0310	0.3487	1.0500e-003	0.1143	8.0000e-004	0.1151	0.0304	7.4000e-004	0.0311	0.0000	94.5119	94.5119	2.3600e-003	0.0000	94.5709
Total	0.0594	0.3860	0.4081	2.2000e-003	0.1426	1.1500e-003	0.1438	0.0386	1.0800e-003	0.0396	0.0000	204.3274	204.3274	8.7600e-003	0.0000	204.5465

3.4 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	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

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3.4 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	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	8.2600e-003	0.3548	0.0567	1.1600e-003	0.0286	3.5000e-004	0.0290	8.2600e-003	3.4000e-004	8.5900e-003	0.0000	109.8471	109.8471	6.4900e-003	0.0000	110.0094
Worker	0.0479	0.0281	0.3238	1.0100e-003	0.1151	7.9000e-004	0.1159	0.0306	7.3000e-004	0.0313	0.0000	91.5829	91.5829	2.1400e-003	0.0000	91.6364
Total	0.0562	0.3829	0.3805	2.1700e-003	0.1437	1.1400e-003	0.1449	0.0389	1.0700e-003	0.0399	0.0000	201.4300	201.4300	8.6300e-003	0.0000	201.6458

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					
Off-Road	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

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3.4 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	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	8.2600e-003	0.3548	0.0567	1.1600e-003	0.0286	3.5000e-004	0.0290	8.2600e-003	3.4000e-004	8.5900e-003	0.0000	109.8471	109.8471	6.4900e-003	0.0000	110.0094
Worker	0.0479	0.0281	0.3238	1.0100e-003	0.1151	7.9000e-004	0.1159	0.0306	7.3000e-004	0.0313	0.0000	91.5829	91.5829	2.1400e-003	0.0000	91.6364
Total	0.0562	0.3829	0.3805	2.1700e-003	0.1437	1.1400e-003	0.1449	0.0389	1.0700e-003	0.0399	0.0000	201.4300	201.4300	8.6300e-003	0.0000	201.6458

3.4 Building Construction - 2025

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					
Off-Road	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6326	251.6326	0.0592	0.0000	253.1114
Total	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6326	251.6326	0.0592	0.0000	253.1114

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3.4 Building Construction - 2025

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	6.6700e-003	0.2914	0.0449	9.5000e-004	0.0237	2.9000e-004	0.0240	6.8400e-003	2.7000e-004	7.1100e-003	0.0000	90.3484	90.3484	5.3900e-003	0.0000	90.4831
Worker	0.0372	0.0210	0.2467	8.1000e-004	0.0954	6.4000e-004	0.0960	0.0254	5.9000e-004	0.0259	0.0000	72.8310	72.8310	1.6000e-003	0.0000	72.8709
Total	0.0438	0.3124	0.2917	1.7600e-003	0.1190	9.3000e-004	0.1200	0.0322	8.6000e-004	0.0331	0.0000	163.1794	163.1794	6.9900e-003	0.0000	163.3540

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					
Off-Road	0.0356	0.2425	1.8944	2.9300e-003		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003	0.0000	251.6323	251.6323	0.0592	0.0000	253.1111
Total	0.0356	0.2425	1.8944	2.9300e-003		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003	0.0000	251.6323	251.6323	0.0592	0.0000	253.1111

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3.4 Building Construction - 2025

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	6.6700e-003	0.2914	0.0449	9.5000e-004	0.0237	2.9000e-004	0.0240	6.8400e-003	2.7000e-004	7.1100e-003	0.0000	90.3484	90.3484	5.3900e-003	0.0000	90.4831
Worker	0.0372	0.0210	0.2467	8.1000e-004	0.0954	6.4000e-004	0.0960	0.0254	5.9000e-004	0.0259	0.0000	72.8310	72.8310	1.6000e-003	0.0000	72.8709
Total	0.0438	0.3124	0.2917	1.7600e-003	0.1190	9.3000e-004	0.1200	0.0322	8.6000e-004	0.0331	0.0000	163.1794	163.1794	6.9900e-003	0.0000	163.3540

3.5 Paving - 2025

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					
Off-Road	0.0201	0.1888	0.3207	5.0000e-004		9.2100e-003	9.2100e-003		8.4700e-003	8.4700e-003	0.0000	44.0424	44.0424	0.0142	0.0000	44.3985
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0201	0.1888	0.3207	5.0000e-004		9.2100e-003	9.2100e-003		8.4700e-003	8.4700e-003	0.0000	44.0424	44.0424	0.0142	0.0000	44.3985

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3.5 Paving - 2025

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	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149
Total	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149

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					
Off-Road	6.1700e-003	0.0267	0.3805	5.0000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.0423	44.0423	0.0142	0.0000	44.3984
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1700e-003	0.0267	0.3805	5.0000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.0423	44.0423	0.0142	0.0000	44.3984

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3.5 Paving - 2025

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	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149
Total	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149

3.5 Paving - 2026

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					
Off-Road	0.0142	0.1330	0.2260	3.5000e-004		6.4900e-003	6.4900e-003		5.9700e-003	5.9700e-003	0.0000	31.0299	31.0299	0.0100	0.0000	31.2807
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0142	0.1330	0.2260	3.5000e-004		6.4900e-003	6.4900e-003		5.9700e-003	5.9700e-003	0.0000	31.0299	31.0299	0.0100	0.0000	31.2807

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3.5 Paving - 2026

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	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685
Total	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685

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					
Off-Road	4.3500e-003	0.0188	0.2681	3.5000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.0298	31.0298	0.0100	0.0000	31.2807
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3500e-003	0.0188	0.2681	3.5000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.0298	31.0298	0.0100	0.0000	31.2807

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3.5 Paving - 2026

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	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685
Total	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685

3.6 Architectural Coating - 2026

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					
Archit. Coating	2.2329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	2.2393	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878

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3.6 Architectural Coating - 2026

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	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558
Total	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558

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					
Archit. Coating	2.2329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	2.2340	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878

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3.6 Architectural Coating - 2026

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	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558
Total	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0434	3.6534	12.1653	0.0333	2.9124	0.0350	2.9474	0.7800	0.0327	0.8127	0.0000	3,045.4277	3,045.4277	0.1762	0.0000	3,049.8316
Unmitigated	1.0658	3.8143	12.8546	0.0356	3.1283	0.0373	3.1655	0.8378	0.0349	0.8726	0.0000	3,256.8985	3,256.8985	0.1850	0.0000	3,261.5246

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	2,879.20	2,909.70	2607.75	8,337,937	7,762,619
Total	2,879.20	2,909.70	2,607.75	8,337,937	7,762,619

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

	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	466.2293	466.2293	0.0265	6.0100e-003	468.6822
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	469.9692	469.9692	0.0267	6.0600e-003	472.4417
NaturalGas Mitigated	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698
NaturalGas Unmitigated	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677

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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					
Single Family Housing	7.9743e+006	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677
Total		0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677

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					
Single Family Housing	7.49558e+006	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698
Total		0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	2.67203e+006	469.9692	0.0267	6.0600e-003	472.4417
Total		469.9692	0.0267	6.0600e-003	472.4417

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	2.65076e+006	466.2293	0.0265	6.0100e-003	468.6822
Total		466.2293	0.0265	6.0100e-003	468.6822

6.0 Area Detail

6.1 Mitigation Measures Area

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Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	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	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1200e-003	2.4200e-003	136.7023
Unmitigated	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1200e-003	2.4200e-003	136.7023

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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	0.2233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1441					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0134	0.1141	0.0486	7.3000e-004		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003	0.0000	132.1283	132.1283	2.5300e-003	2.4200e-003	132.9134
Landscaping	0.0688	0.0262	2.2696	1.2000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	3.6993	3.6993	3.5800e-003	0.0000	3.7889
Total	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1100e-003	2.4200e-003	136.7023

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1441					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0134	0.1141	0.0486	7.3000e-004		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003	0.0000	132.1283	132.1283	2.5300e-003	2.4200e-003	132.9134
Landscaping	0.0688	0.0262	2.2696	1.2000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	3.6993	3.6993	3.5800e-003	0.0000	3.7889
Total	2.4495	0.1403	2.3181	8.5000e-004		0.0217	0.0217		0.0217	0.0217	0.0000	135.8275	135.8275	6.1100e-003	2.4200e-003	136.7023

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.3433	0.5192	0.0125	43.0509
Unmitigated	32.9291	0.6490	0.0156	53.8137

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	19.872 / 12.528	32.9291	0.6490	0.0156	53.8137
Total		32.9291	0.6490	0.0156	53.8137

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	15.8976 / 10.0224	26.3433	0.5192	0.0125	43.0509
Total		26.3433	0.5192	0.0125	43.0509

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.7922	2.8244	0.0000	118.4031
Unmitigated	63.7229	3.7659	0.0000	157.8708

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	313.92	63.7229	3.7659	0.0000	157.8708
Total		63.7229	3.7659	0.0000	157.8708

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	235.44	47.7922	2.8244	0.0000	118.4031
Total		47.7922	2.8244	0.0000	118.4031

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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**CalEEMod Output
Baldwin Master Plan
Operations 2040**

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

**Baldwin MP Operations at Buildout 2040
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	305.00	Dwelling Unit	65.90	549,000.00	872

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2040
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - TID Intensity Rates

Land Use - Project description acreage

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 10th Ed Trip Generation Rates

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2019 Title 24 Compliance w/o solar

Water Mitigation - CalGreen and MWELO requirements

Waste Mitigation - Achieve the CalRecycle 75% Mandate

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.56	0.48
tblFleetMix	LDT1	0.03	0.24
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	8.3940e-003	9.0000e-004
tblFleetMix	LHD2	3.3080e-003	1.0000e-003
tblFleetMix	MCY	3.7970e-003	3.3000e-003
tblFleetMix	MDV	0.09	0.06

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tblFleetMix	MH	4.2700e-004	4.4000e-003
tblFleetMix	MHD	0.03	7.9000e-003
tblFleetMix	OBUS	1.8080e-003	0.00
tblFleetMix	SBUS	5.9300e-004	1.1000e-003
tblFleetMix	UBUS	8.7500e-004	4.3000e-003
tblLandUse	LotAcreage	99.03	65.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	HO_TTP	37.70	38.00
tblVehicleTrips	HS_TTP	13.90	14.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

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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					
2021	0.4507	4.5534	3.2965	6.7700e-003	0.9109	0.2043	1.1152	0.4160	0.1890	0.6050	0.0000	597.5273	597.5273	0.1552	0.0000	601.4061
2022	0.2889	2.5173	2.5819	5.7700e-003	0.1426	0.1071	0.2498	0.0386	0.1008	0.1393	0.0000	511.9876	511.9876	0.0839	0.0000	514.0844
2023	0.2639	2.2561	2.5198	5.7000e-003	0.1426	0.0921	0.2348	0.0386	0.0867	0.1252	0.0000	505.6735	505.6735	0.0805	0.0000	507.6848
2024	0.2489	2.1440	2.4983	5.7000e-003	0.1437	0.0815	0.2252	0.0389	0.0766	0.1155	0.0000	505.1523	505.1523	0.0805	0.0000	507.1637
2025	0.2133	1.8547	2.3644	5.2000e-003	0.1217	0.0674	0.1891	0.0329	0.0632	0.0961	0.0000	460.8681	460.8681	0.0804	0.0000	462.8787
2026	2.2566	0.1777	0.3139	5.3000e-004	8.4500e-003	8.4700e-003	0.0169	2.2500e-003	7.9500e-003	0.0102	0.0000	46.8257	46.8257	0.0107	0.0000	47.0928
Maximum	2.2566	4.5534	3.2965	6.7700e-003	0.9109	0.2043	1.1152	0.4160	0.1890	0.6050	0.0000	597.5273	597.5273	0.1552	0.0000	601.4061

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2.1 Overall Construction

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					
2021	0.1063	0.5699	3.4565	6.7700e-003	0.4498	0.0101	0.4599	0.1980	0.0100	0.2080	0.0000	597.5267	597.5267	0.1552	0.0000	601.4056
2022	0.1097	0.7778	2.7245	5.7700e-003	0.1426	7.2400e-003	0.1499	0.0386	7.1300e-003	0.0457	0.0000	511.9873	511.9873	0.0839	0.0000	514.0840
2023	0.1020	0.6765	2.6779	5.7000e-003	0.1426	6.4600e-003	0.1491	0.0386	6.3800e-003	0.0450	0.0000	505.6732	505.6732	0.0805	0.0000	507.6845
2024	0.0991	0.6756	2.6678	5.7000e-003	0.1437	6.4900e-003	0.1502	0.0389	6.4100e-003	0.0453	0.0000	505.1520	505.1520	0.0805	0.0000	507.1633
2025	0.0866	0.5822	2.5734	5.2000e-003	0.1217	6.1900e-003	0.1279	0.0329	6.1300e-003	0.0390	0.0000	460.8678	460.8678	0.0804	0.0000	462.8784
2026	2.2415	0.0254	0.3569	5.3000e-004	8.4500e-003	7.8000e-004	9.2300e-003	2.2500e-003	7.8000e-004	3.0200e-003	0.0000	46.8256	46.8256	0.0107	0.0000	47.0928
Maximum	2.2415	0.7778	3.4565	6.7700e-003	0.4498	0.0101	0.4599	0.1980	0.0100	0.2080	0.0000	597.5267	597.5267	0.1552	0.0000	601.4056

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	26.25	75.51	-6.50	0.00	31.37	93.36	48.49	38.44	92.97	64.64	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)
1	1-1-2021	3-31-2021	1.5065	0.1034
2	4-1-2021	6-30-2021	1.6489	0.1367
3	7-1-2021	9-30-2021	1.0620	0.2027
4	10-1-2021	12-31-2021	0.7854	0.2344
5	1-1-2022	3-31-2022	0.6953	0.2209

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6	4-1-2022	6-30-2022	0.7014	0.2217
7	7-1-2022	9-30-2022	0.7091	0.2241
8	10-1-2022	12-31-2022	0.7107	0.2258
9	1-1-2023	3-31-2023	0.6244	0.1938
10	4-1-2023	6-30-2023	0.6303	0.1949
11	7-1-2023	9-30-2023	0.6372	0.1971
12	10-1-2023	12-31-2023	0.6383	0.1981
13	1-1-2024	3-31-2024	0.5949	0.1934
14	4-1-2024	6-30-2024	0.5939	0.1925
15	7-1-2024	9-30-2024	0.6005	0.1946
16	10-1-2024	12-31-2024	0.6014	0.1956
17	1-1-2025	3-31-2025	0.5514	0.1890
18	4-1-2025	6-30-2025	0.5566	0.1902
19	7-1-2025	9-30-2025	0.5627	0.1923
20	10-1-2025	12-31-2025	0.3958	0.0979
21	1-1-2026	3-31-2026	1.1704	1.0280
22	4-1-2026	6-30-2026	1.2629	1.2389
		Highest	1.6489	1.2389

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2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.7912	0.3391	14.4998	0.0406		2.0114	2.0114		2.0114	2.0114	266.4154	135.8275	402.2430	1.2515	2.4200e-003	434.2521
Energy	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	895.5081	895.5081	0.0348	0.0139	900.5094
Mobile	0.3373	1.8773	4.4271	0.0248	3.1231	0.0110	3.1341	0.8362	0.0102	0.8464	0.0000	2,296.7868	2,296.7868	0.0919	0.0000	2,299.0846
Waste						0.0000	0.0000		0.0000	0.0000	63.7229	0.0000	63.7229	3.7659	0.0000	157.8708
Water						0.0000	0.0000		0.0000	0.0000	6.3045	26.6246	32.9291	0.6490	0.0156	53.8137
Total	4.1715	2.5838	19.0833	0.0678	3.1231	2.0522	5.1752	0.8362	2.0514	2.8875	336.4428	3,354.7471	3,691.1899	5.7932	0.0319	3,845.5306

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4482	0.1401	2.3033	8.5000e-004		0.0218	0.0218		0.0218	0.0218	0.0000	135.8275	135.8275	6.0500e-003	2.4200e-003	136.7007
Energy	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	866.2222	866.2222	0.0341	0.0134	871.0520
Mobile	0.3279	1.8282	4.1714	0.0232	2.9076	0.0103	2.9179	0.7785	9.5900e-003	0.7881	0.0000	2,149.6770	2,149.6770	0.0881	0.0000	2,151.8783
Waste						0.0000	0.0000		0.0000	0.0000	47.7922	0.0000	47.7922	2.8244	0.0000	118.4031
Water						0.0000	0.0000		0.0000	0.0000	5.0436	21.2997	26.3433	0.5192	0.0125	43.0509
Total	2.8166	2.3137	6.6217	0.0263	2.9076	0.0600	2.9676	0.7785	0.0593	0.8378	52.8358	3,173.0264	3,225.8621	3.4719	0.0283	3,321.0851

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	32.48	10.45	65.30	61.26	6.90	97.07	42.66	6.90	97.11	70.99	84.30	5.42	12.61	40.07	11.38	13.64

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	2/25/2021	5	40	
2	Grading	Grading	2/26/2021	7/29/2021	5	110	
3	Building Construction	Building Construction	7/30/2021	10/30/2025	5	1110	
4	Paving	Paving	10/31/2025	2/12/2026	5	75	
5	Architectural Coating	Architectural Coating	2/13/2026	5/28/2026	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 0

Residential Indoor: 1,111,725; Residential Outdoor: 370,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	33.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	0.8099	0.4231	7.6000e-004		0.0409	0.0409		0.0376	0.0376	0.0000	66.8714	66.8714	0.0216	0.0000	67.4121
Total	0.0778	0.8099	0.4231	7.6000e-004	0.3613	0.0409	0.4022	0.1986	0.0376	0.2362	0.0000	66.8714	66.8714	0.0216	0.0000	67.4121

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3.2 Site Preparation - 2021

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	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649
Total	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649

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					0.1626	0.0000	0.1626	0.0894	0.0000	0.0894	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.0404	0.4174	7.6000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	66.8714	66.8714	0.0216	0.0000	67.4120
Total	9.3100e-003	0.0404	0.4174	7.6000e-004	0.1626	1.2400e-003	0.1638	0.0894	1.2400e-003	0.0906	0.0000	66.8714	66.8714	0.0216	0.0000	67.4120

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3.2 Site Preparation - 2021

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	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649
Total	1.4900e-003	9.8000e-004	0.0106	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.5631	2.5631	7.0000e-005	0.0000	2.5649

3.3 Grading - 2021

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					0.4770	0.0000	0.4770	0.1978	0.0000	0.1978	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2305	2.5520	1.6983	3.4100e-003		0.1092	0.1092		0.1005	0.1005	0.0000	299.7224	299.7224	0.0969	0.0000	302.1458
Total	0.2305	2.5520	1.6983	3.4100e-003	0.4770	0.1092	0.5862	0.1978	0.1005	0.2983	0.0000	299.7224	299.7224	0.0969	0.0000	302.1458

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3.3 Grading - 2021

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	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373
Total	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373

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					0.2147	0.0000	0.2147	0.0890	0.0000	0.0890	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0419	0.1815	1.8150	3.4100e-003		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003	0.0000	299.7220	299.7220	0.0969	0.0000	302.1455
Total	0.0419	0.1815	1.8150	3.4100e-003	0.2147	5.5800e-003	0.2203	0.0890	5.5800e-003	0.0946	0.0000	299.7220	299.7220	0.0969	0.0000	302.1455

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3.3 Grading - 2021

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	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373
Total	4.5600e-003	2.9800e-003	0.0322	9.0000e-005	8.7900e-003	7.0000e-005	8.8500e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.8316	7.8316	2.3000e-004	0.0000	7.8373

3.4 Building Construction - 2021

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					
Off-Road	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341
Total	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341

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3.4 Building Construction - 2021

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	5.5900e-003	0.2035	0.0334	5.1000e-004	0.0121	5.5000e-004	0.0127	3.5000e-003	5.2000e-004	4.0200e-003	0.0000	48.5146	48.5146	4.0100e-003	0.0000	48.6149
Worker	0.0253	0.0166	0.1790	4.8000e-004	0.0488	3.6000e-004	0.0491	0.0130	3.4000e-004	0.0133	0.0000	43.4655	43.4655	1.2600e-003	0.0000	43.4970
Total	0.0309	0.2200	0.2124	9.9000e-004	0.0609	9.1000e-004	0.0618	0.0165	8.6000e-004	0.0173	0.0000	91.9801	91.9801	5.2700e-003	0.0000	92.1119

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					
Off-Road	0.0182	0.1240	0.9690	1.4900e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	128.5585	128.5585	0.0310	0.0000	129.3339
Total	0.0182	0.1240	0.9690	1.4900e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	128.5585	128.5585	0.0310	0.0000	129.3339

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3.4 Building Construction - 2021

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	5.5900e-003	0.2035	0.0334	5.1000e-004	0.0121	5.5000e-004	0.0127	3.5000e-003	5.2000e-004	4.0200e-003	0.0000	48.5146	48.5146	4.0100e-003	0.0000	48.6149
Worker	0.0253	0.0166	0.1790	4.8000e-004	0.0488	3.6000e-004	0.0491	0.0130	3.4000e-004	0.0133	0.0000	43.4655	43.4655	1.2600e-003	0.0000	43.4970
Total	0.0309	0.2200	0.2124	9.9000e-004	0.0609	9.1000e-004	0.0618	0.0165	8.6000e-004	0.0173	0.0000	91.9801	91.9801	5.2700e-003	0.0000	92.1119

3.4 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	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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3.4 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	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	0.0122	0.4526	0.0724	1.1800e-003	0.0284	1.1100e-003	0.0295	8.2000e-003	1.0600e-003	9.2600e-003	0.0000	112.5624	112.5624	9.0600e-003	0.0000	112.7888
Worker	0.0549	0.0347	0.3822	1.0900e-003	0.1143	8.3000e-004	0.1151	0.0304	7.6000e-004	0.0311	0.0000	98.1824	98.1824	2.6400e-003	0.0000	98.2485
Total	0.0671	0.4873	0.4547	2.2700e-003	0.1426	1.9400e-003	0.1446	0.0386	1.8200e-003	0.0404	0.0000	210.7448	210.7448	0.0117	0.0000	211.0373

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					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

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3.4 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	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	0.0122	0.4526	0.0724	1.1800e-003	0.0284	1.1100e-003	0.0295	8.2000e-003	1.0600e-003	9.2600e-003	0.0000	112.5624	112.5624	9.0600e-003	0.0000	112.7888
Worker	0.0549	0.0347	0.3822	1.0900e-003	0.1143	8.3000e-004	0.1151	0.0304	7.6000e-004	0.0311	0.0000	98.1824	98.1824	2.6400e-003	0.0000	98.2485
Total	0.0671	0.4873	0.4547	2.2700e-003	0.1426	1.9400e-003	0.1446	0.0386	1.8200e-003	0.0404	0.0000	210.7448	210.7448	0.0117	0.0000	211.0373

3.4 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	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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3.4 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	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	8.4400e-003	0.3550	0.0594	1.1500e-003	0.0284	3.5000e-004	0.0287	8.2000e-003	3.4000e-004	8.5300e-003	0.0000	109.8155	109.8155	6.4000e-003	0.0000	109.9756
Worker	0.0510	0.0310	0.3487	1.0500e-003	0.1143	8.0000e-004	0.1151	0.0304	7.4000e-004	0.0311	0.0000	94.5119	94.5119	2.3600e-003	0.0000	94.5709
Total	0.0594	0.3860	0.4081	2.2000e-003	0.1426	1.1500e-003	0.1438	0.0386	1.0800e-003	0.0396	0.0000	204.3274	204.3274	8.7600e-003	0.0000	204.5465

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					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

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3.4 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	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	8.4400e-003	0.3550	0.0594	1.1500e-003	0.0284	3.5000e-004	0.0287	8.2000e-003	3.4000e-004	8.5300e-003	0.0000	109.8155	109.8155	6.4000e-003	0.0000	109.9756
Worker	0.0510	0.0310	0.3487	1.0500e-003	0.1143	8.0000e-004	0.1151	0.0304	7.4000e-004	0.0311	0.0000	94.5119	94.5119	2.3600e-003	0.0000	94.5709
Total	0.0594	0.3860	0.4081	2.2000e-003	0.1426	1.1500e-003	0.1438	0.0386	1.0800e-003	0.0396	0.0000	204.3274	204.3274	8.7600e-003	0.0000	204.5465

3.4 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	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

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3.4 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	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	8.2600e-003	0.3548	0.0567	1.1600e-003	0.0286	3.5000e-004	0.0290	8.2600e-003	3.4000e-004	8.5900e-003	0.0000	109.8471	109.8471	6.4900e-003	0.0000	110.0094
Worker	0.0479	0.0281	0.3238	1.0100e-003	0.1151	7.9000e-004	0.1159	0.0306	7.3000e-004	0.0313	0.0000	91.5829	91.5829	2.1400e-003	0.0000	91.6364
Total	0.0562	0.3829	0.3805	2.1700e-003	0.1437	1.1400e-003	0.1449	0.0389	1.0700e-003	0.0399	0.0000	201.4300	201.4300	8.6300e-003	0.0000	201.6458

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					
Off-Road	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

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3.4 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	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	8.2600e-003	0.3548	0.0567	1.1600e-003	0.0286	3.5000e-004	0.0290	8.2600e-003	3.4000e-004	8.5900e-003	0.0000	109.8471	109.8471	6.4900e-003	0.0000	110.0094
Worker	0.0479	0.0281	0.3238	1.0100e-003	0.1151	7.9000e-004	0.1159	0.0306	7.3000e-004	0.0313	0.0000	91.5829	91.5829	2.1400e-003	0.0000	91.6364
Total	0.0562	0.3829	0.3805	2.1700e-003	0.1437	1.1400e-003	0.1449	0.0389	1.0700e-003	0.0399	0.0000	201.4300	201.4300	8.6300e-003	0.0000	201.6458

3.4 Building Construction - 2025

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					
Off-Road	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6326	251.6326	0.0592	0.0000	253.1114
Total	0.1484	1.3530	1.7452	2.9300e-003		0.0572	0.0572		0.0538	0.0538	0.0000	251.6326	251.6326	0.0592	0.0000	253.1114

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3.4 Building Construction - 2025

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	6.6700e-003	0.2914	0.0449	9.5000e-004	0.0237	2.9000e-004	0.0240	6.8400e-003	2.7000e-004	7.1100e-003	0.0000	90.3484	90.3484	5.3900e-003	0.0000	90.4831
Worker	0.0372	0.0210	0.2467	8.1000e-004	0.0954	6.4000e-004	0.0960	0.0254	5.9000e-004	0.0259	0.0000	72.8310	72.8310	1.6000e-003	0.0000	72.8709
Total	0.0438	0.3124	0.2917	1.7600e-003	0.1190	9.3000e-004	0.1200	0.0322	8.6000e-004	0.0331	0.0000	163.1794	163.1794	6.9900e-003	0.0000	163.3540

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					
Off-Road	0.0356	0.2425	1.8944	2.9300e-003		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003	0.0000	251.6323	251.6323	0.0592	0.0000	253.1111
Total	0.0356	0.2425	1.8944	2.9300e-003		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003	0.0000	251.6323	251.6323	0.0592	0.0000	253.1111

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3.4 Building Construction - 2025

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	6.6700e-003	0.2914	0.0449	9.5000e-004	0.0237	2.9000e-004	0.0240	6.8400e-003	2.7000e-004	7.1100e-003	0.0000	90.3484	90.3484	5.3900e-003	0.0000	90.4831
Worker	0.0372	0.0210	0.2467	8.1000e-004	0.0954	6.4000e-004	0.0960	0.0254	5.9000e-004	0.0259	0.0000	72.8310	72.8310	1.6000e-003	0.0000	72.8709
Total	0.0438	0.3124	0.2917	1.7600e-003	0.1190	9.3000e-004	0.1200	0.0322	8.6000e-004	0.0331	0.0000	163.1794	163.1794	6.9900e-003	0.0000	163.3540

3.5 Paving - 2025

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					
Off-Road	0.0201	0.1888	0.3207	5.0000e-004		9.2100e-003	9.2100e-003		8.4700e-003	8.4700e-003	0.0000	44.0424	44.0424	0.0142	0.0000	44.3985
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0201	0.1888	0.3207	5.0000e-004		9.2100e-003	9.2100e-003		8.4700e-003	8.4700e-003	0.0000	44.0424	44.0424	0.0142	0.0000	44.3985

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3.5 Paving - 2025

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	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149
Total	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149

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					
Off-Road	6.1700e-003	0.0267	0.3805	5.0000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.0423	44.0423	0.0142	0.0000	44.3984
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1700e-003	0.0267	0.3805	5.0000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	44.0423	44.0423	0.0142	0.0000	44.3984

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3.5 Paving - 2025

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	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149
Total	1.0300e-003	5.8000e-004	6.8200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.0138	2.0138	4.0000e-005	0.0000	2.0149

3.5 Paving - 2026

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					
Off-Road	0.0142	0.1330	0.2260	3.5000e-004		6.4900e-003	6.4900e-003		5.9700e-003	5.9700e-003	0.0000	31.0299	31.0299	0.0100	0.0000	31.2807
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0142	0.1330	0.2260	3.5000e-004		6.4900e-003	6.4900e-003		5.9700e-003	5.9700e-003	0.0000	31.0299	31.0299	0.0100	0.0000	31.2807

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3.5 Paving - 2026

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	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685
Total	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685

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					
Off-Road	4.3500e-003	0.0188	0.2681	3.5000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.0298	31.0298	0.0100	0.0000	31.2807
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3500e-003	0.0188	0.2681	3.5000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	31.0298	31.0298	0.0100	0.0000	31.2807

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3.5 Paving - 2026

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	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685
Total	6.8000e-004	3.7000e-004	4.4200e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3678	1.3678	3.0000e-005	0.0000	1.3685

3.6 Architectural Coating - 2026

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					
Archit. Coating	2.2329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	2.2393	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878

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3.6 Architectural Coating - 2026

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	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558
Total	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558

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					
Archit. Coating	2.2329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	2.2340	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878

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3.6 Architectural Coating - 2026

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	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558
Total	2.4100e-003	1.3200e-003	0.0157	5.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	4.8534	4.8534	1.0000e-004	0.0000	4.8558

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3279	1.8282	4.1714	0.0232	2.9076	0.0103	2.9179	0.7785	9.5900e-003	0.7881	0.0000	2,149.6770	2,149.6770	0.0881	0.0000	2,151.8783
Unmitigated	0.3373	1.8773	4.4271	0.0248	3.1231	0.0110	3.1341	0.8362	0.0102	0.8464	0.0000	2,296.7868	2,296.7868	0.0919	0.0000	2,299.0846

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	2,879.20	2,909.70	2607.75	8,325,622	7,751,154
Total	2,879.20	2,909.70	2,607.75	8,325,622	7,751,154

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	48.00	14.00	38.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.483400	0.236300	0.171600	0.062500	0.000900	0.001000	0.007900	0.023300	0.000000	0.004300	0.003300	0.001100	0.004400

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

	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	466.2293	466.2293	0.0265	6.0100e-003	468.6822
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	469.9692	469.9692	0.0267	6.0600e-003	472.4417
NaturalGas Mitigated	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698
NaturalGas Unmitigated	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677

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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					
Single Family Housing	7.9743e+006	0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677
Total		0.0430	0.3674	0.1564	2.3500e-003		0.0297	0.0297		0.0297	0.0297	0.0000	425.5389	425.5389	8.1600e-003	7.8000e-003	428.0677

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					
Single Family Housing	7.49558e+006	0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698
Total		0.0404	0.3454	0.1470	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.9929	399.9929	7.6700e-003	7.3300e-003	402.3698

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	2.67203e+006	469.9692	0.0267	6.0600e-003	472.4417
Total		469.9692	0.0267	6.0600e-003	472.4417

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	2.65076e+006	466.2293	0.0265	6.0100e-003	468.6822
Total		466.2293	0.0265	6.0100e-003	468.6822

6.0 Area Detail

6.1 Mitigation Measures Area

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Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	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	2.4482	0.1401	2.3033	8.5000e-004		0.0218	0.0218		0.0218	0.0218	0.0000	135.8275	135.8275	6.0500e-003	2.4200e-003	136.7007
Unmitigated	3.7912	0.3391	14.4998	0.0406		2.0114	2.0114		2.0114	2.0114	266.4154	135.8275	402.2430	1.2515	2.4200e-003	434.2521

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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	0.2233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1441					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3564	0.3131	12.2451	0.0405		1.9989	1.9989		1.9989	1.9989	266.4154	132.1283	398.5437	1.2480	2.4200e-003	430.4648
Landscaping	0.0674	0.0260	2.2547	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.6993	3.6993	3.5200e-003	0.0000	3.7873
Total	3.7912	0.3391	14.4998	0.0406		2.0114	2.0114		2.0114	2.0114	266.4154	135.8275	402.2430	1.2515	2.4200e-003	434.2521

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1441					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0134	0.1141	0.0486	7.3000e-004		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003	0.0000	132.1283	132.1283	2.5300e-003	2.4200e-003	132.9134
Landscaping	0.0674	0.0260	2.2547	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.6993	3.6993	3.5200e-003	0.0000	3.7873
Total	2.4482	0.1401	2.3033	8.5000e-004		0.0218	0.0218		0.0218	0.0218	0.0000	135.8275	135.8275	6.0500e-003	2.4200e-003	136.7007

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.3433	0.5192	0.0125	43.0509
Unmitigated	32.9291	0.6490	0.0156	53.8137

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	19.872 / 12.528	32.9291	0.6490	0.0156	53.8137
Total		32.9291	0.6490	0.0156	53.8137

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	15.8976 / 10.0224	26.3433	0.5192	0.0125	43.0509
Total		26.3433	0.5192	0.0125	43.0509

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.7922	2.8244	0.0000	118.4031
Unmitigated	63.7229	3.7659	0.0000	157.8708

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	313.92	63.7229	3.7659	0.0000	157.8708
Total		63.7229	3.7659	0.0000	157.8708

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	235.44	47.7922	2.8244	0.0000	118.4031
Total		47.7922	2.8244	0.0000	118.4031

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Baldwin MP Operations at Buildout 2040 - Stanislaus County, Annual

**CalEEMod Output
Baldwin Master Plan**

Construction and Operations Summer Daily

Baldwin MP Const and Ops - Stanislaus County, Summer

Baldwin MP Const and Ops
Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	305.00	Dwelling Unit	65.90	549,000.00	872

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2021
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MW hr)	387.76	CH4 Intensity (lb/MW hr)	0.022	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Baldwin MP Const and Ops - Stanislaus County, Summer

Project Characteristics - TID Intensity Rates

Land Use - Project description acreage

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 10th Ed Trip Generation Rates

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Construction Off-road Equipment Mitigation - Tier 4 Mitigation Measure

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2019 Title 24 Compliance w/o solar

Water Mitigation - CalGreen and MWELO requirements

Waste Mitigation - Achieve the CalRecycle 75% Mandate

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Baldwin MP Const and Ops - Stanislaus County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblFleetMix	HHD	0.09	0.02
tblFleetMix	LDA	0.51	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.6820e-003	9.0000e-004
tblFleetMix	MCY	4.7430e-003	2.6000e-003
tblFleetMix	MDV	0.13	0.05

Baldwin MP Const and Ops - Stanislaus County, Summer

tblFleetMix	MH	9.8700e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	1.8310e-003	0.00
tblFleetMix	SBUS	8.5600e-004	9.0000e-004
tblFleetMix	UBUS	1.1470e-003	4.4000e-003
tblLandUse	LotAcreage	99.03	65.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	790	387.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44
tblWoodstoves	NumberCatalytic	65.90	0.00
tblWoodstoves	NumberNoncatalytic	65.90	0.00

2.0 Emissions Summary

Baldwin MP Const and Ops - Stanislaus County, Summer

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					
2021	4.2852	46.4497	31.5564	0.0638	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	6,178.976 4	6,178.976 4	1.9479	0.0000	6,227.672 7
2022	2.2770	19.3034	20.2843	0.0453	1.1270	0.8238	1.9507	0.3040	0.7751	1.0790	0.0000	4,432.959 2	4,432.959 2	0.7095	0.0000	4,450.696 6
2023	2.0810	17.3124	19.7836	0.0448	1.1269	0.7086	1.8355	0.3040	0.6667	0.9706	0.0000	4,376.038 9	4,376.038 9	0.6815	0.0000	4,393.075 3
2024	1.9476	16.3272	19.4445	0.0444	1.1269	0.6220	1.7489	0.3040	0.5850	0.8890	0.0000	4,335.690 4	4,335.690 4	0.6760	0.0000	4,352.590 9
2025	1.8154	15.3114	19.1186	0.0440	1.1269	0.5361	1.6630	0.3040	0.5042	0.8082	0.0000	4,296.187 5	4,296.187 5	0.7162	0.0000	4,312.956 1
2026	59.7877	8.6037	14.9105	0.0239	0.1807	0.4193	0.5425	0.0479	0.3858	0.4184	0.0000	2,313.263 4	2,313.263 4	0.7159	0.0000	2,331.161 4
Maximum	59.7877	46.4497	31.5564	0.0638	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	6,178.976 4	6,178.976 4	1.9479	0.0000	6,227.672 7

Baldwin MP Const and Ops - Stanislaus County, Summer

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	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689
Energy	0.2356	2.0134	0.8568	0.0129		0.1628	0.1628		0.1628	0.1628		2,570.2815	2,570.2815	0.0493	0.0471	2,585.5554
Mobile	7.6636	20.6492	80.8470	0.2162	18.0685	0.2092	18.2777	4.8280	0.1956	5.0236		21,804.1737	21,804.1737	1.1802		21,833.6777
Total	21.9610	25.7363	108.1055	0.2482	18.0685	0.7359	18.8045	4.8280	0.7224	5.5504	0.0000	27,972.1166	27,972.1166	1.3414	0.1123	28,039.1020

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	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689
Energy	0.2215	1.8925	0.8053	0.0121		0.1530	0.1530		0.1530	0.1530		2,415.9818	2,415.9818	0.0463	0.0443	2,430.3387
Mobile	7.5275	19.8012	76.1788	0.2022	16.8218	0.1961	17.0179	4.4949	0.1834	4.6783		20,384.9449	20,384.9449	1.1208		20,412.9645
Total	21.8108	24.7675	103.3858	0.2333	16.8218	0.7131	17.5349	4.4949	0.7004	5.1953	0.0000	26,398.5881	26,398.5881	1.2791	0.1094	26,463.1722

Baldwin MP Const and Ops - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.68	3.76	4.37	5.98	6.90	3.10	6.75	6.90	3.04	6.40	0.00	5.63	5.63	4.65	2.52	5.62

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	1/1/2021	2/25/2021	5	40	
2	Grading	Grading	2/26/2021	7/29/2021	5	110	
3	Building Construction	Building Construction	7/30/2021	10/30/2025	5	1110	
4	Paving	Paving	10/31/2025	2/12/2026	5	75	
5	Architectural Coating	Architectural Coating	2/13/2026	5/28/2026	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 0

Residential Indoor: 1,111,725; Residential Outdoor: 370,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baldwin MP Const and Ops - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	33.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Baldwin MP Const and Ops - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin MP Const and Ops - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	0.4656	2.0175	20.8690	0.0380	8.1298	0.0621	8.1919	4.4688	0.0621	4.5309	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Baldwin MP Const and Ops - Stanislaus County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534
Total	0.0846	0.0449	0.6102	1.5500e-003	0.1479	1.0700e-003	0.1489	0.0392	9.9000e-004	0.0402		154.7397	154.7397	4.5500e-003		154.8534

3.3 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin MP Const and Ops - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	0.7616	3.3000	32.9991	0.0620	3.9030	0.1015	4.0045	1.6184	0.1015	1.7200	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Baldwin MP Const and Ops - Stanislaus County, Summer

3.3 Grading - 2021

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
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
Worker	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593
Total	0.0940	0.0499	0.6780	1.7300e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		171.9330	171.9330	5.0500e-003		172.0593

3.4 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.0988	3.6217	0.5560	9.3100e-003	0.2234	9.7100e-003	0.2331	0.0643	9.2900e-003	0.0736		975.9029	975.9029	0.0755		977.7891
Worker	0.5169	0.2743	3.7288	9.5000e-003	0.9036	6.5600e-003	0.9102	0.2397	6.0400e-003	0.2457		945.6313	945.6313	0.0278		946.3262
Total	0.6157	3.8960	4.2848	0.0188	1.1270	0.0163	1.1432	0.3040	0.0153	0.3193		1,921.5342	1,921.5342	0.1032		1,924.1153

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 Building Construction - 2021

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
Vendor	0.0988	3.6217	0.5560	9.3100e-003	0.2234	9.7100e-003	0.2331	0.0643	9.2900e-003	0.0736		975.9029	975.9029	0.0755		977.7891
Worker	0.5169	0.2743	3.7288	9.5000e-003	0.9036	6.5600e-003	0.9102	0.2397	6.0400e-003	0.2457		945.6313	945.6313	0.0278		946.3262
Total	0.6157	3.8960	4.2848	0.0188	1.1270	0.0163	1.1432	0.3040	0.0153	0.3193		1,921.5342	1,921.5342	0.1032		1,924.1153

3.4 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

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0919	3.4426	0.5142	9.2200e-003	0.2233	8.4100e-003	0.2317	0.0643	8.0400e-003	0.0723		966.7252	966.7252	0.0727		968.5425
Worker	0.4789	0.2452	3.4067	9.1600e-003	0.9036	6.3500e-003	0.9100	0.2397	5.8500e-003	0.2455		911.9004	911.9004	0.0249		912.5219
Total	0.5708	3.6877	3.9209	0.0184	1.1270	0.0148	1.1417	0.3040	0.0139	0.3179		1,878.6256	1,878.6256	0.0976		1,881.0644

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0919	3.4426	0.5142	9.2200e-003	0.2233	8.4100e-003	0.2317	0.0643	8.0400e-003	0.0723		966.7252	966.7252	0.0727		968.5425
Worker	0.4789	0.2452	3.4067	9.1600e-003	0.9036	6.3500e-003	0.9100	0.2397	5.8500e-003	0.2455		911.9004	911.9004	0.0249		912.5219
Total	0.5708	3.6877	3.9209	0.0184	1.1270	0.0148	1.1417	0.3040	0.0139	0.3179		1,878.6256	1,878.6256	0.0976		1,881.0644

3.4 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

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0638	2.7080	0.4264	9.0000e-003	0.2233	2.6900e-003	0.2260	0.0643	2.5700e-003	0.0669		943.0514	943.0514	0.0514		944.3366
Worker	0.4445	0.2195	3.1132	8.8100e-003	0.9036	6.1800e-003	0.9098	0.2397	5.6900e-003	0.2454		877.7776	877.7776	0.0222		878.3327
Total	0.5082	2.9275	3.5396	0.0178	1.1269	8.8700e-003	1.1358	0.3040	8.2600e-003	0.3122		1,820.8289	1,820.8289	0.0736		1,822.6693

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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0638	2.7080	0.4264	9.0000e-003	0.2233	2.6900e-003	0.2260	0.0643	2.5700e-003	0.0669		943.0514	943.0514	0.0514		944.3366
Worker	0.4445	0.2195	3.1132	8.8100e-003	0.9036	6.1800e-003	0.9098	0.2397	5.6900e-003	0.2454		877.7776	877.7776	0.0222		878.3327
Total	0.5082	2.9275	3.5396	0.0178	1.1269	8.8700e-003	1.1358	0.3040	8.2600e-003	0.3122		1,820.8289	1,820.8289	0.0736		1,822.6693

3.4 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

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0619	2.6861	0.4037	8.9300e-003	0.2233	2.6500e-003	0.2260	0.0643	2.5300e-003	0.0668		935.9935	935.9935	0.0517		937.2859
Worker	0.4141	0.1973	2.8740	8.4700e-003	0.9036	6.0400e-003	0.9097	0.2397	5.5600e-003	0.2452		843.9980	843.9980	0.0200		844.4974
Total	0.4760	2.8834	3.2777	0.0174	1.1269	8.6900e-003	1.1356	0.3040	8.0900e-003	0.3121		1,779.9915	1,779.9915	0.0717		1,781.7833

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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 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
Vendor	0.0619	2.6861	0.4037	8.9300e-003	0.2233	2.6500e-003	0.2260	0.0643	2.5300e-003	0.0668		935.9935	935.9935	0.0517		937.2859
Worker	0.4141	0.1973	2.8740	8.4700e-003	0.9036	6.0400e-003	0.9097	0.2397	5.5600e-003	0.2452		843.9980	843.9980	0.0200		844.4974
Total	0.4760	2.8834	3.2777	0.0174	1.1269	8.6900e-003	1.1356	0.3040	8.0900e-003	0.3121		1,779.9915	1,779.9915	0.0717		1,781.7833

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 Building Construction - 2025

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
Vendor	0.0603	2.6635	0.3862	8.8600e-003	0.2233	2.6100e-003	0.2259	0.0643	2.5000e-003	0.0668		929.3750	929.3750	0.0518		930.6699
Worker	0.3876	0.1782	2.6478	8.1300e-003	0.9036	5.9100e-003	0.9095	0.2397	5.4400e-003	0.2451		810.3381	810.3381	0.0180		810.7881
Total	0.4480	2.8417	3.0340	0.0170	1.1269	8.5200e-003	1.1354	0.3040	7.9400e-003	0.3119		1,739.7131	1,739.7131	0.0698		1,741.4580

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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981

Baldwin MP Const and Ops - Stanislaus County, Summer

3.4 Building Construction - 2025

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
Vendor	0.0603	2.6635	0.3862	8.8600e-003	0.2233	2.6100e-003	0.2259	0.0643	2.5000e-003	0.0668		929.3750	929.3750	0.0518		930.6699
Worker	0.3876	0.1782	2.6478	8.1300e-003	0.9036	5.9100e-003	0.9095	0.2397	5.4400e-003	0.2451		810.3381	810.3381	0.0180		810.7881
Total	0.4480	2.8417	3.0340	0.0170	1.1269	8.5200e-003	1.1354	0.3040	7.9400e-003	0.3119		1,739.7131	1,739.7131	0.0698		1,741.4580

3.5 Paving - 2025

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878

Baldwin MP Const and Ops - Stanislaus County, Summer

3.5 Paving - 2025

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
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
Worker	0.0529	0.0243	0.3611	1.1100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		110.5006	110.5006	2.4500e-003		110.5620
Total	0.0529	0.0243	0.3611	1.1100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		110.5006	110.5006	2.4500e-003		110.5620

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878

Baldwin MP Const and Ops - Stanislaus County, Summer

3.5 Paving - 2025

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
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
Worker	0.0529	0.0243	0.3611	1.1100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		110.5006	110.5006	2.4500e-003		110.5620
Total	0.0529	0.0243	0.3611	1.1100e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		110.5006	110.5006	2.4500e-003		110.5620

3.5 Paving - 2026

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878

Baldwin MP Const and Ops - Stanislaus County, Summer

3.5 Paving - 2026

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
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
Worker	0.0497	0.0221	0.3325	1.0700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		106.5182	106.5182	2.2100e-003		106.5736
Total	0.0497	0.0221	0.3325	1.0700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		106.5182	106.5182	2.2100e-003		106.5736

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878

Baldwin MP Const and Ops - Stanislaus County, Summer

3.5 Paving - 2026

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
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
Worker	0.0497	0.0221	0.3325	1.0700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		106.5182	106.5182	2.2100e-003		106.5736
Total	0.0497	0.0221	0.3325	1.0700e-003	0.1232	7.8000e-004	0.1240	0.0327	7.2000e-004	0.0334		106.5182	106.5182	2.2100e-003		106.5736

3.6 Architectural Coating - 2026

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	59.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	59.7149	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Baldwin MP Const and Ops - Stanislaus County, Summer

3.6 Architectural Coating - 2026

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
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
Worker	0.0728	0.0324	0.4877	1.5700e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		156.2268	156.2268	3.2500e-003		156.3079
Total	0.0728	0.0324	0.4877	1.5700e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		156.2268	156.2268	3.2500e-003		156.3079

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	59.5440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	59.5737	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319

Baldwin MP Const and Ops - Stanislaus County, Summer

3.6 Architectural Coating - 2026

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
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
Worker	0.0728	0.0324	0.4877	1.5700e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		156.2268	156.2268	3.2500e-003		156.3079
Total	0.0728	0.0324	0.4877	1.5700e-003	0.1807	1.1400e-003	0.1819	0.0479	1.0500e-003	0.0490		156.2268	156.2268	3.2500e-003		156.3079

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Baldwin MP Const and Ops - Stanislaus County, Summer

	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	7.5275	19.8012	76.1788	0.2022	16.8218	0.1961	17.0179	4.4949	0.1834	4.6783		20,384.94 49	20,384.94 49	1.1208		20,412.96 45
Unmitigated	7.6636	20.6492	80.8470	0.2162	18.0685	0.2092	18.2777	4.8280	0.1956	5.0236		21,804.17 37	21,804.17 37	1.1802		21,833.67 77

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	2,879.20	2,909.70	2607.75	8,337,937	7,762,619
Total	2,879.20	2,909.70	2,607.75	8,337,937	7,762,619

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

Baldwin MP Const and Ops - Stanislaus County, Summer

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.2215	1.8925	0.8053	0.0121		0.1530	0.1530		0.1530	0.1530		2,415.9818	2,415.9818	0.0463	0.0443	2,430.3387
NaturalGas Unmitigated	0.2356	2.0134	0.8568	0.0129		0.1628	0.1628		0.1628	0.1628		2,570.2815	2,570.2815	0.0493	0.0471	2,585.5554

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					
Single Family Housing	21847.4	0.2356	2.0134	0.8568	0.0129		0.1628	0.1628		0.1628	0.1628		2,570.2815	2,570.2815	0.0493	0.0471	2,585.5554
Total		0.2356	2.0134	0.8568	0.0129		0.1628	0.1628		0.1628	0.1628		2,570.2815	2,570.2815	0.0493	0.0471	2,585.5554

Baldwin MP Const and Ops - Stanislaus County, Summer

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					
Single Family Housing	20.5358	0.2215	1.8925	0.8053	0.0121		0.1530	0.1530		0.1530	0.1530		2,415.9818	2,415.9818	0.0463	0.0443	2,430.3387
Total		0.2215	1.8925	0.8053	0.0121		0.1530	0.1530		0.1530	0.1530		2,415.9818	2,415.9818	0.0463	0.0443	2,430.3387

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

Baldwin MP Const and Ops - Stanislaus County, Summer

	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	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689
Unmitigated	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689

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	1.2235					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.7486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3256	2.7827	1.1841	0.0178		0.2250	0.2250		0.2250	0.2250	0.0000	3,552.3529	3,552.3529	0.0681	0.0651	3,573.4628
Landscaping	0.7641	0.2911	25.2176	1.3300e-003		0.1390	0.1390		0.1390	0.1390		45.3085	45.3085	0.0439		46.4061
Total	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689

Baldwin MP Const and Ops - Stanislaus County, Summer

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	1.2235					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.7486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3256	2.7827	1.1841	0.0178		0.2250	0.2250		0.2250	0.2250	0.0000	3,552.3529	3,552.3529	0.0681	0.0651	3,573.4628
Landscaping	0.7641	0.2911	25.2176	1.3300e-003		0.1390	0.1390		0.1390	0.1390		45.3085	45.3085	0.0439		46.4061
Total	14.0618	3.0738	26.4017	0.0191		0.3640	0.3640		0.3640	0.3640	0.0000	3,597.6614	3,597.6614	0.1120	0.0651	3,619.8689

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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
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Baldwin MP Const and Ops - Stanislaus County, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
