Rio Americano High School Stadium Improvements

Initial Study - Appendices

Prepared for:

San Juan Unified School District

January 2026

Rio Americano High School Stadium

Improvements Initial Study - Appendices

Prepared for:

San Juan Unified School District
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January 2026

Appendix A Detailed Emissions Inputs and Assumptions

Rio Americano High School Stadium Improvements Project

Construction Criteria Pollutant Emissions

Description	ROG	NOX	PM10	PM2.5	PM10	PM2.5
	lb/day				ton/year	
Construction Equipment and Vehicles	3.24	28.57	2.02	1.18	0.03	0.02

Operational Criteria Pollutant Emissions

Description	ROG	NOX	PM10	PM2.5	PM10	PM2.5
	lb/day				ton/year	
Operations (Mobile)	9.1	6.6	10.2	2.6	0.17	0.05

Construction GHG Emissions

Year	MT CO2e
2027	102.5

Operational GHG Emissions

Emissions Source	MT CO2e per year
Mobile	180
Energy	2
Refrigerants	7.76E-05
Total	**182.46**

CalEEMod Assumptions and Inputs

Project Name	Rio Americano High School Improvements Project
Project Location	Sacramento County
Land Use Setting	Suburban
Construction Start Date	6/1/2027
Construction Workdays	5 days per week
Operational Year	2028
Utility	SMUD (electric), PG&E (natural gas)

4 month duration

Land Use

Project Component	CalEEMod Land Use Type	Total Area (sf)	Acres	Building Square Footage	Notes
Stadium Lighting	User Defined Recreational	12957.2	0.30	0	Includes 2900 sf area for pathway egress lighting, disturbance areas for lights shown below, and hardscape/softscape disturbed for bleachers
Press Box	Educational (High School)	0.3	0.01	300	Duplicates Mesa Verde design, measured in google earth

Light installation area calculation

Taller lights (80-100' tall)

Disturbance area per light (sf)	28	14 sf hardscape and 14 sf softscape
Total disturbance area (sf)	112	based on 4 lights

Shorter lights (15' tall)

Assumed disturbance area (sf) per light	4.2	Assumes scales based on height compared to taller lights (assuming 100' for taller lights)
Total disturbance area (sf)	25.2	based on 6 lights

Construction Schedule and Equipment

Phase Name	CalEEMod Phase Type	Weeks	Equipment	Equipment Type	Quantity	Hrs/Day	Start	End	Workers	Notes
Structure Removal	Demolition	1	*Haul Truck Trips*	N/A	*N/A*	*N/A*	6/1/2027	6/1/2027	*N/A*	No equipment use
Egress Pathway Excavation and Light Installation	Building Construction	2	CalEEMod Defaults for demolition	Concrete/Industrial Saws	1	8	6/1/2027	6/15/2027	CalEEMod Default	Duration and equipment based on CalEEMod defaults
				Rubber Tired Dozers	1	1				
				Tractors/Loaders/Backhoes	2	6				
			Equipment for light installation	Cranes	1	8				
				Forklift	1	8				
Stadium Lights Installation	Building Construction	1	Crane	Cranes	1	8	6/1/2027	6/8/2027	20	Schedule based on project inputs. Equipment based on Jesuit Stadium project
			Auger	Bore/Drill Rigs	1	8				
			Backhoe	Tractor/Loaders/Backhoes	1	8				
			Forklift	Forklifts	1	8				
Bleacher Installation and Press Box Construction	Building Construction	12	CalEEMod defaults	Cranes	1	4	6/1/2027	8/24/2027	CalEEMod Default	
				Forklifts	2	6				
				Generator Sets	1	8				Assumes powers hand tools
				Tractor/Loaders/Backhoes	2	8				
				Welders	6	8				
Egress Pathway Repaving	Paving	1	CalEEMod defaults	Pavers	1	7	6/16/2027	6/21/2027	CalEEMod Default	Assume overlaps with last 2 weeks of bleach installation and press box construction. Duration based on CalEEMod defaults
				Rollers	1	7				
				Cement and Mortar Mixers	4	6				
				Tractors/Loaders/Backhoes	1	7				

Notes:

1. Assume no architectural coating phase
2. Conservatively assumes all construction activities start at same time and overlap, with exception of egress pathway paving occuring following completion of excavation and lighting installation

Material Quantities

Phase	Material	Quantity	Units	Notes
Egress Pathway Excavation and Light Installation	Excavated material (export)	39	cubic yards	Based on 2900 feet disturbance area. 900 feet of disturbance for lights excavated to 2.4' depth as shown below, and remaining 2000 ft assumed to be excavated to 6" to remove asphalt. Trenched material is assumed to be reused in place
Stadium Light Installation	Excavated material (export)	66	cubic yards	

Material excavation quantity calculation

Taller lights (80-100' tall)

Total disturbance area for taller lights (sf) =	112	based on 4 lights, calculated above
Assumed excavation depth (ft) =	16	
Excavated material for taller lights (cy) =	66	based on 4 lights

Shorter lights (15' tall)

Total disturbance area for shorter lights (sf) =	25.2	based on 6 lights, calculated above
Assumed excavation depth (ft) =	2.4	Assumes scales based on height compared to taller lights (assuming 100' for taller lights)
Excavated material for taller lights (cy) =	2	based on 6 lights

Construction Vehicle Trips

Phase	Worker Trips (one-way trips/day)	Vendor Trips (one-way trips/day)	Haul Truck Trips (one-way trips/day)	Notes
Structure Removal	0	0	8	Assumes 1 trip per storage shed (3 sheds) and 1 trip for removed SMUD poles
Egress Pathway Excavation and Light Installation	15	2	1	Worker trips assume 2.5 one-way trips per piece of equipment, consistent with CalEEMod User Guide. Assume 1 vendor round trip per day for delivery of lights. Haul truck trips based on excavated material quantity and rounded up to nearest whole number
Stadium Light Installation	Assume included below	2	2	Assume 1 vendor trip per day. Haul truck trips based on exported material quantity.
Bleacher and Press Box Installation	40	2	0	Assume 1 vendor trip per day
Paving	Default (17.5)	0	0	

Paved Area

Egress Pathway	0.06	acres

Assumes 2900 sf area is repaved.

Operational Trips

	Daily One-Way Trips	Miles per Trip	Daily VMT	Annual One-Way Trips	Annual VMT
Event Attendance	2500	5.69	14225	87500	497875

Notes:

1. Daily one-way trips based on 2,500 person stadium capacity, 2.3 persons per vehicle, 150 staff/other vehicle trips, and 2 busses (1,239 round trips, rounded to 1,250). Two one-way trips per round trip.
2. Miles per trip based on Residential trip length "home-other" for Sacramento County, CalEEMod Appendix G, Table G-15
3. Annual one-way trips based on 35 events hosted at stadium (ie 5 home football games, assume 5 tournaments over Fri-Sun weekends per year, graduation, 2 community events = 5 + 5*3 + 1 +2 = 23. Rounded up to 35 for conservatism).
4. Conservatively assumes default CalEEMod fleet mix, which captures busses and other vehicle types and conservatively estimates emissions given most trips would be by passenger vehicles.

Electricity Consumption

Project Component	Annual Electricity Use (kWh)	Notes
Press Box	2287.06	CalEEMod default
Lighting	11350.33	Based on CalEEMod defaults for parking lot of same area of disturbance as proposed project
Educational (High School)	13637.39	Total estimated electricity consumption included under "High School" land use because User Defined Recreational doesn't allow for determining what portion of electricity is subject to Title 24 standards or not

Assumes 0 water consumption, 0 waste generation, and updated default refrigerants to only include commerical A/C for press box.

Rio Americano High School Improvements Project Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rio Americano High School Improvements Project
Construction Start Date	6/1/2027
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.7
Precipitation (days)	35
Location	38.57865753855586, -121.35535623789534
County	Sacramento
City	Unincorporated
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	649
EDFZ	13
Electric Utility	Sacramento Municipal Utility District
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.35

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
High School	0.30	1000sqft	0.01	300	0.00	0.00	—	—

User Defined Recreational	1.00	User Defined Unit	0.30	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.9	3.2	29	39	0.07	0.89	1.1	2.0	0.82	0.36	1.2	—	8,010	8,010	0.35	0.22	3.8	8,088
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	0.31	2.5	3.6	0.01	0.07	0.08	0.16	0.07	0.02	0.09	—	616	616	0.02	0.01	0.13	619
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.46	0.65	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.02	—	102	102	< 0.005	< 0.005	0.02	103

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.9	3.2	29	39	0.07	0.89	1.1	2.0	0.82	0.36	1.2	—	8,010	8,010	0.35	0.22	3.8	8,088

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.38	0.31	2.5	3.6	0.01	0.07	0.08	0.16	0.07	0.02	0.09	—	616	616	0.02	0.01	0.13	619
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07	0.06	0.46	0.65	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.02	—	102	102	< 0.005	< 0.005	0.02	103

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.7	9.1	5.7	56	0.12	0.08	10	10	0.08	2.6	2.6	0.00	11,962	11,962	0.62	0.54	34	12,173
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.7	8.1	6.6	51	0.11	0.08	10	10	0.08	2.6	2.6	0.00	10,953	10,953	0.73	0.60	0.88	11,150
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.84	0.79	0.59	4.7	0.01	0.01	0.95	0.95	0.01	0.24	0.25	0.00	1,083	1,083	0.06	0.05	1.4	1,102
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.14	0.11	0.86	< 0.005	< 0.005	0.17	0.17	< 0.005	0.04	0.05	0.00	179	179	0.01	0.01	0.23	182

2.5. Operations Emissions by Sector, Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.7	9.1	5.7	56	0.12	0.08	10	10	0.08	2.6	2.6	—	11,948	11,948	0.61	0.54	34	12,159
Area	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	14	14	< 0.005	< 0.005	—	14
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	9.7	9.1	5.7	56	0.12	0.08	10	10	0.08	2.6	2.6	0.00	11,962	11,962	0.62	0.54	34	12,173
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.7	8.1	6.6	51	0.11	0.08	10	10	0.08	2.6	2.6	—	10,939	10,939	0.73	0.60	0.88	11,136
Area	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	14	14	< 0.005	< 0.005	—	14
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	8.7	8.1	6.6	51	0.11	0.08	10	10	0.08	2.6	2.6	0.00	10,953	10,953	0.73	0.60	0.88	11,150
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.83	0.78	0.59	4.7	0.01	0.01	0.95	0.95	0.01	0.24	0.25	—	1,069	1,069	0.06	0.05	1.4	1,088
Area	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	14	14	< 0.005	< 0.005	—	14
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.84	0.79	0.59	4.7	0.01	0.01	0.95	0.95	0.01	0.24	0.25	0.00	1,083	1,083	0.06	0.05	1.4	1,102
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.15	0.14	0.11	0.86	< 0.005	< 0.005	0.17	0.17	< 0.005	0.04	0.05	—	177	177	0.01	0.01	0.23	180
Area	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	2.3	2.3	< 0.005	< 0.005	—	2.3
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.15	0.14	0.11	0.86	< 0.005	< 0.005	0.17	0.17	< 0.005	0.04	0.05	0.00	179	179	0.01	0.01	0.23	182

3. Construction Emissions Details

3.1. Structure Removal (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Demoliti	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	0.02	0.96	0.39	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	566	566	0.05	0.09	1.1	595
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.6	1.6	< 0.005	< 0.005	< 0.005	1.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27

3.3. Egress Pathway Excavation and Light Installation (2027) - Unmitigated

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

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

Off-Road	1.0	0.85	7.8	9.6	0.02	0.28	—	0.28	0.26	—	0.26	—	1,994	1,994	0.08	0.02	—	2,001
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	55	55	< 0.005	< 0.005	—	55
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.0	9.0	< 0.005	< 0.005	—	9.1
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.80	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.54	166
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	55	55	< 0.005	0.01	0.12	58
Hauling	0.01	< 0.005	0.12	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	71	71	0.01	0.01	0.14	74
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.1	4.1	< 0.005	< 0.005	0.01	4.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.5	1.5	< 0.005	< 0.005	< 0.005	1.6
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.9	1.9	< 0.005	< 0.005	< 0.005	2.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34

3.5. Light Installation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.62	6.1	8.4	0.02	0.22	—	0.22	0.20	—	0.20	—	1,816	1,816	0.07	0.01	—	1,823

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25	25	< 0.005	< 0.005	—	25
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.1	4.1	< 0.005	< 0.005	—	4.1
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	55	55	< 0.005	0.01	0.12	58
Hauling	0.02	< 0.005	0.24	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	142	142	0.01	0.02	0.27	149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.79
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.9	1.9	< 0.005	< 0.005	< 0.005	2.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34

3.7. Bleacher and Press Box Installation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.8	1.5	13	17	0.03	0.37	—	0.37	0.34	—	0.34	—	2,653	2,653	0.11	0.02	—	2,662
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.1	2.8	< 0.005	0.06	—	0.06	0.06	—	0.06	—	436	436	0.02	< 0.005	—	438
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.39	0.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72	72	< 0.005	< 0.005	—	72
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	2.1	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	437	437	0.01	0.02	1.4	443
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	55	55	< 0.005	0.01	0.12	58
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	66	66	< 0.005	< 0.005	0.10	66
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.1	9.1	< 0.005	< 0.005	0.01	9.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11	11	< 0.005	< 0.005	0.02	11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.5	1.5	< 0.005	< 0.005	< 0.005	1.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.48	4.2	5.3	0.01	0.17	—	0.17	0.15	—	0.15	—	823	823	0.03	0.01	—	826
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11	11	< 0.005	< 0.005	—	11
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.9	1.9	< 0.005	< 0.005	—	1.9
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.93	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	191	191	< 0.005	0.01	0.63	194
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.4	2.4	< 0.005	< 0.005	< 0.005	2.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	14	14	< 0.005	< 0.005	—	14
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14	14	< 0.005	< 0.005	—	14
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	14	14	< 0.005	< 0.005	—	14
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14	14	< 0.005	< 0.005	—	14
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	2.3	2.3	< 0.005	< 0.005	—	2.3
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2.3	2.3	< 0.005	< 0.005	—	2.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Consum Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Structure Removal	Demolition	6/1/2027	6/1/2027	5.0	1.00	—
Egress Pathway Excavation and Light Installation	Building Construction	6/1/2027	6/14/2027	5.0	10.0	—
Light Installation	Building Construction	6/1/2027	6/7/2027	5.0	5.0	—
Bleacher and Press Box Installation	Building Construction	6/1/2027	8/23/2027	5.0	60	—
Paving	Paving	6/15/2027	6/21/2027	5.0	5.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Egress Pathway Excavation and Light Installation	Concrete/Industrial Saws	Diesel	Average	1.00	8.0	33	0.73
Egress Pathway Excavation and Light Installation	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Egress Pathway Excavation and Light Installation	Tractors/Loaders/Backhoes	Diesel	Average	2.0	6.0	84	0.37
Egress Pathway Excavation and Light Installation	Cranes	Diesel	Average	1.00	8.0	367	0.29
Egress Pathway Excavation and Light Installation	Forklifts	Diesel	Average	1.00	8.0	82	0.20
Light Installation	Cranes	Diesel	Average	1.00	8.0	367	0.29
Light Installation	Forklifts	Diesel	Average	1.00	8.0	82	0.20
Light Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.0	84	0.37
Light Installation	Bore/Drill Rigs	Diesel	Average	1.00	8.0	83	0.50
Bleacher and Press Box Installation	Cranes	Diesel	Average	1.00	4.0	367	0.29
Bleacher and Press Box Installation	Forklifts	Diesel	Average	2.0	6.0	82	0.20
Bleacher and Press Box Installation	Tractors/Loaders/Backhoes	Diesel	Average	2.0	8.0	84	0.37
Bleacher and Press Box Installation	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Bleacher and Press Box Installation	Welders	Diesel	Average	6.0	8.0	46	0.45
Paving	Pavers	Diesel	Average	1.00	7.0	81	0.42
Paving	Rollers	Diesel	Average	1.00	7.0	36	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	4.0	6.0	10.0	0.56

Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.0	84	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Structure Removal	Worker	0.00	14	LDA,LDT1,LDT2
Structure Removal	Vendor	—	8.8	HHDT,MHDT
Structure Removal	Hauling	8.0	20	HHDT
Structure Removal	Onsite truck	—	—	HHDT
Egress Pathway Excavation and Light Installation	Worker	15	14	LDA,LDT1,LDT2
Egress Pathway Excavation and Light Installation	Vendor	2.0	8.8	HHDT,MHDT
Egress Pathway Excavation and Light Installation	Hauling	1.00	20	HHDT
Egress Pathway Excavation and Light Installation	Onsite truck	—	—	HHDT
Light Installation	Worker	0.00	14	LDA,LDT1,LDT2
Light Installation	Vendor	2.0	8.8	HHDT,MHDT
Light Installation	Hauling	2.0	20	HHDT
Light Installation	Onsite truck	—	—	HHDT
Bleacher and Press Box Installation	Worker	40	14	LDA,LDT1,LDT2
Bleacher and Press Box Installation	Vendor	2.0	8.8	HHDT,MHDT
Bleacher and Press Box Installation	Hauling	0.00	20	HHDT
Bleacher and Press Box Installation	Onsite truck	—	—	HHDT
Paving	Worker	18	14	LDA,LDT1,LDT2
Paving	Vendor	—	8.8	HHDT,MHDT
Paving	Hauling	0.00	20	HHDT

Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Structure Removal	0.00	0.00	0.00	—	0.00
Egress Pathway Excavation and Light Installation	—	39	0.63	0.00	0.00
Light Installation	—	66	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.06

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	High School	0.00	0%
Paving	User Defined Recreational	0.06	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	375	0.01	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	2,500	0.00	0.00	87,500	14,225	0.00	0.00	497,875

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
High School	Wood Fireplaces	0	0
High School	Gas Fireplaces	0	0
High School	Propane Fireplaces	0	0
High School	Electric Fireplaces	0	0
High School	No Fireplaces	0	0
High School	Conventional Wood Stoves	0	0
High School	Catalytic Wood Stoves	0	0
High School	Non-Catalytic Wood Stoves	0	0
High School	Pellet Wood Stoves	0	0
User Defined Recreational	Wood Fireplaces	0	0
User Defined Recreational	Gas Fireplaces	0	0
User Defined Recreational	Propane Fireplaces	0	0

User Defined Recreational	Electric Fireplaces	0	0
User Defined Recreational	No Fireplaces	0	0
User Defined Recreational	Conventional Wood Stoves	0	0
User Defined Recreational	Catalytic Wood Stoves	0	0
User Defined Recreational	Non-Catalytic Wood Stoves	0	0
User Defined Recreational	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

—	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
undefined	0.00	0.00	450	150	—

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
High School	13,637	375	0.0129	0.0017	0.00
User Defined Recreational	0.00	375	0.0129	0.0017	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
High School	0.00	0.00
User Defined Recreational	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
High School	0.00	0.00
User Defined Recreational	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.0	4.0	18

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	21	annual days of extreme heat
Extreme Precipitation	6.0	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	55
AQ-PM	41
AQ-DPM	44
Drinking Water	74
Lead Risk Housing	29
Pesticides	0.00
Toxic Releases	26
Traffic	20
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	60
Haz Waste Facilities/Generators	17
Impaired Water Bodies	67
Solid Waste	0.00
Sensitive Population	—
Asthma	48

Cardio-vascular	29
Low Birth Weights	97
Socioeconomic Factor Indicators	—
Education	3.1
Housing	3.0
Linguistic	1.8
Poverty	4.6
Unemployment	7.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	92.39060695
Employed	37.66200436
Median HI	91.10740408
Education	—
Bachelor's or higher	93.58398563
High school enrollment	100
Preschool enrollment	66.32875658
Transportation	—
Auto Access	62.47914795
Active commuting	42.96163223
Social	—
2-parent households	80.03336327
Voting	99.0632619
Neighborhood	—
Alcohol availability	82.26613628

Park access	53.98434492
Retail density	42.93596818
Supermarket access	34.63364558
Tree canopy	94.94418067
Housing	—
Homeownership	89.69588092
Housing habitability	85.24316694
Low-inc homeowner severe housing cost burden	32.27255229
Low-inc renter severe housing cost burden	73.36070833
Uncrowded housing	89.4649044
Health Outcomes	—
Insured adults	86.94982677
Arthritis	0.0
Asthma ER Admissions	50.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	46.6
Cognitively Disabled	70.6
Physically Disabled	57.4
Heart Attack ER Admissions	74.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	62.1

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	95.4
Elderly	4.7
English Speaking	94.5
Foreign-born	6.9
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.6
Traffic Density	48.9
Traffic Access	23.0
Other Indices	—
Hardship	6.9
Other Decision Support	—
2016 Voting	95.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	21
Healthy Places Index Score for Project Location (b)	90
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Project land uses.
Construction: Construction Phases	Project schedule.
Construction: Off-Road Equipment	Project equipment.
Construction: Dust From Material Movement	Excavated materials for light installation.
Construction: Trips and VMT	Project trips.
Construction: Paving	Only egress pathway is repaved.
Operations: Energy Use	No natural gas.
Operations: Water and Waste Water	No water consumption.
Operations: Solid Waste	No waste generation.
Operations: Refrigerants	Assume only commercial A/C for press box.

Appendix B Rio American High School Bat Survey Results

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Rio Americano High School Bat Survey Results

To: San Juan Unified School District

From: Kim Fettke, Wildlife Biologist

This memo presents the results of bat surveys conducted for the Rio Americano High School Improvements Project (proposed project) during the summer of 2025.

Project Description

San Juan Unified School District (District) is proposing to improve the existing Raider Stadium and related pedestrian access pathway within the Rio Americano High School Campus by adding high mast light standards, additional bleacher seating, an upgraded public address (PA) system, and a new press box. New light standards would also be installed for pedestrian safety along the paved fire lane between the stadium and the main campus parking lot. The proposed stadium lights would be used on select evenings to accommodate athletic practices and competitions and other schoolwide or community events, primarily during the winter months when the sun sets early. Though the school currently uses portable diesel-powered lights for athletic activities, the installation of permanent lights and other project improvements is expected to accommodate an increase in the level of activity after sunset.

The project site encompasses Raider Stadium and associated paved areas within the Rio Americano High School campus located at 4540 American River Drive (Assessor's Parcel Number [APN] 292-0210-019-0000). The project site is bounded by American River Drive on the north, private residences adjacent to Whitehall Way on the northeast, private residences adjacent to Morris Drive on the southwest, and the American River Parkway (Parkway) to the south. It is located in unincorporated Sacramento County east of Sacramento City limits in the urbanized Arden-Arcade community.

Potential Impacts

The State of California provides legal protection for all bat species under several different laws and regulations. Fish and Game Code Sections 4150 and 4152 prohibit the take or possession of any non-game mammals; by definition, take under this code means "hunt, pursue, catch, capture, or kill." California Code of Regulations Title 14 Section 251.1 prohibits harassment of bats. Penal Code Section 597 prohibits intentional and malicious acts of cruelty to living animals. California Code of Regulations Title 14 Section 15386 designates the California Department Fish and Wildlife as a Trustee Agency having jurisdiction by law over wildlife, fish, and plants affected by actions defined as a project under the California Environmental Quality Act.

California Department Fish and Wildlife also maintains a list of Species of Special Concern that are considered Special-status Species under California Environmental Quality Act. Three Species of Special Concern have a potential to roost or forage in the vicinity of the project site, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus frantzii*).

In October 2025, California Department Fish and Wildlife released the latest version of the State Wildlife Action Plan, a resource management document that is updated approximately every 10 years. This document identifies bat Species of Greatest Conservation Need that will be added to the list of Species of Special Concern. This document identifies two new bat species as Species of Greatest Conservation Need; however, this change has not yet been carried forward to the list of Species of Special Concern. Bat roost habitat can exist in buildings and other human-made structures (occupied or not), and in natural structures such as trees and rock outcroppings. The silver-haired bat (*Lasionycteris noctivagans*) and the hoary bat (*Lasiurus cinereus*), each identified in the 2025 State Wildlife Action Plan as Species of Greatest Conservation Need, have a potential to roost or forage in the vicinity of the project site.

Construction activities associated with proposed project improvements would occur during the summer months, and could cause temporary and potentially significant impacts to bats if construction disturbance (e.g., noise and unusual human activity) were to cause the abandonment of an active maternity roost. If mother bats were to abandon a roost occupied by nonvolant pups (pups that cannot fly), pup mortality would result.

Though lighted evening activities already occur at Raider Stadium, operational changes could result from the proposed project, including changes in lighting and increased noise disturbance from sports and other activities occurring during the evening hours. These changes could cause permanent and potentially significant impacts if such disturbance caused roost abandonment and pup mortality during the maternity season (April 1 – August 31) or roost abandonment during the winter months (November 1 – February 28). Arousal from hibernation or roost abandonment during the winter, when food resources are scarce, could result in mortality from decreased fitness or starvation.

Artificial lighting can attract some insect prey species and thus some foraging bat species, while it can also discourage foraging by bat species that avoid lighted areas where they are more visible to predators. The early evening hours when lighting and noise associated with sporting activities occurs also serve as prime foraging hours for most bat species. Therefore, operational changes from the proposed project, including changes in lighting and increased noise disturbance from sports and other activities occurring during the evening hours could result in a permanent loss of foraging habitat for a portion of some nights on and around the existing Raider Stadium. In addition, some bat species (e.g., pallid bat) require foraging habitat very near their roosting habitat, so loss of important foraging habitat may also result in abandonment of nearby roosts.

To evaluate the potential for these project-related impacts, surveys were conducted for potential bat roost habitat within and around the existing Raider Stadium.

Survey Methods

Roost Habitat Assessment

AECOM biologist, Kim Fettke, conducted a daytime bat roost habitat assessment on the afternoon of July 25, 2025 in a survey area of approximately 500 feet around Raider Stadium. The actual survey area was field-fit based on the likelihood of potential roost habitat and the amount of light and noise buffering between the stadium and the potential roost habitat. Temperatures were in the low 80 degrees Fahrenheit (°F) with sustained winds up to 12 miles per hour (mph).

All buildings and other human-made structures were inspected using binoculars and a flashlight for structural features that could provide suitable roosting areas, such as holes in buildings larger than a quarter-inch that could provide ingress to building interiors and protected gaps or cavities that could provide roosting habitat on the outside of buildings. Structures were also inspected for indications of

roosting such as guano, urine or oil staining, the sounds and smells of bat roosting, and bats visibly roosting.

All trees within the survey area were also inspected for potentially suitable roosting habitat such as cavities and sloughing bark. Several trees along the American River Parkway had small cavities and small pieces of sloughing bark with appropriate protection and solar exposure that would provide potential roosting habitat to small numbers of bats. However, these potential roost features are screened from proposed lighting and noise disturbance at the high school by a row of large trees (mostly eucalyptus species) located along the southern fenceline between the school and the American River Parkway. The screening provided by this row of trees would reduce potential disturbance in the American River Parkway to a degree that it would not be expected to cause roost abandonment if any of the trees in the American River Parkway are used for roosting. Therefore, no further survey efforts were necessary for trees in the American River Parkway.

However, the row of large trees located along the southern fenceline between the school and the American River Parkway contain some large and small cavities and flaking bark that could provide suitable roosting habitat for a substantial number of bats. Few of these cavities and flaking bark were accessible for close inspection visually or with a borescope. If these trees contained bat roosts, increased lighting and noise disturbance on and around the immediately adjacent Raider Stadium could cause roost abandonment. Therefore, surveys were conducted for bats emerging from these trees at dusk over four nights in July and August 2025.

Emergence Surveys

Emergence surveys were conducted for the eastern half of the row of large trees located along the southern fenceline between the school and the American River Parkway on July 30 and 31, 2025 during optimal environmental conditions for bat emergence (i.e., warm nightly temperatures, low wind, minimal moonlight, no precipitation). On both nights there were clear skies, a light breeze, and a waxing crescent moon at about 25 degrees (°) high in the west. Surveys started at 8:00 PM when the temperature was 84°F with 3 mph winds. Sunset was at 8:18 PM. Surveys were completed at 9:18 PM when the temperature was 79°F with no wind.

On July 30, the biologist was located on the north side of the line of trees close enough to see emerging bats. On July 31, the biologist was located in the American River Parkway on the south side of the line of trees. The biologist was facing west so that emerging bats were backlit by the setting sun and nighttime lighting located on the school campus. The biologist watched potential roost trees with the naked eye to detect emerging bats. Infrared technology was not used for these surveys because it limits the field of view when surveying a large area, and lighting provided on the school buildings allowed superior visibility of flying bats after last light. An Echometer Pro acoustic bat detector was used to detect and record echolocating bats emerging from the trees and foraging in the survey area.

Emergence surveys were conducted for the western half of the row of trees on August 28 and 29, 2025. On both nights there were clear skies and a waxing crescent moon at about 20° high in the west. Surveys started at 7:30 PM when the temperature was 85°F with no wind. Sunset was at 7:43 PM. Surveys were completed at 8:43 PM when the temperature was 78°F. On August 29, winds picked up during the survey with gusts up to 6 mph at survey end.

Survey Results

No structural features were observed with characteristics indicating a high likelihood of providing roosting habitat and no indications of roosting were detected. No bats were seen or detected emerging from any of the trees surveyed along the southern fenceline. Therefore, no roosting bats are expected within the existing Raider Stadium or adjacent tree line.

Five bats were observed foraging above the existing Raider Stadium and the adjacent ruderal grasslands in a small swale between the playing fields and the line of surveyed trees. Unvetted files from the acoustic recorder identified these as likely Yuma myotis (*myotis yumanensis*) and one canyon bat (*parastrellus hesperus*). Also of interest, on July 30, the first bat was detected acoustically at 8:44 PM (i.e., not immediately after sunset) and identified as a Mexican free-tailed bat (*tadarida brasiliensis*). This was followed by a continuous and regular pattern of detection of other Mexican free-tailed bats for eight minutes, none of which were observed visually. This data would be consistent with an emergence of this bat species from a roost in the vicinity (outside the project disturbance area) flying towards a foraging location at an elevation too high for visibility.

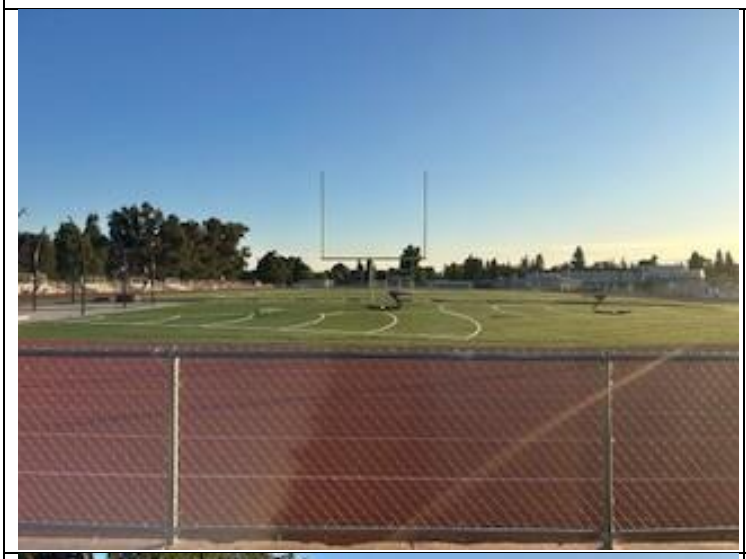
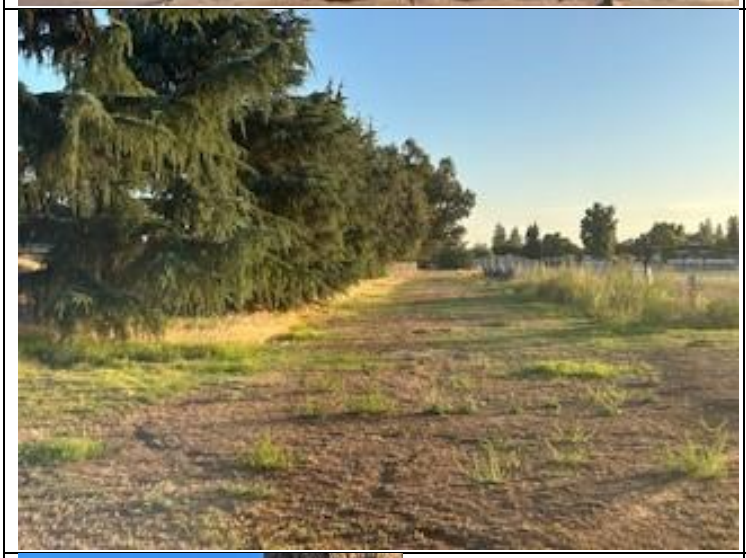
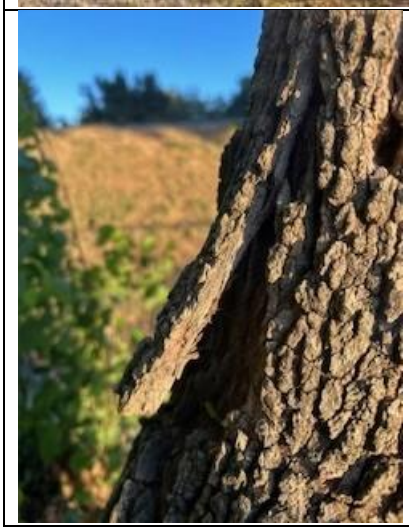
Incidental observations included a juvenile redtail hawk (*buteo jamaicensis*) calling nonstop from the time of arrival on-site until sunset on July 31 from a perch in a redwood tree (*sequoia s*pp.) on the east side of the baseball diamonds, a silent adult redtail hawk perched in a tree by the parking lot (raptors often predate bats upon roost emergence), a large flock of approximately 60 yellow-billed magpie (*pica nuttallii*) foraging in the sports fields, and a California toad (*anaxyrus boreas halophilus*) seen at the end of survey next to one of the buildings near the scoreboard.

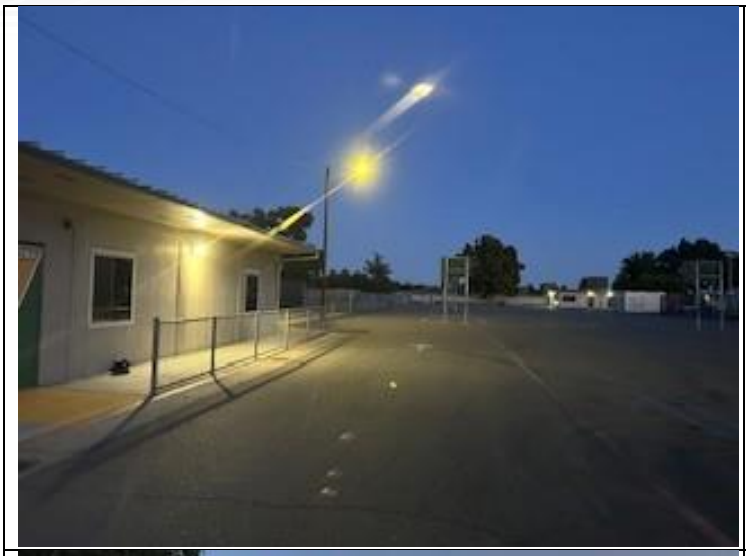
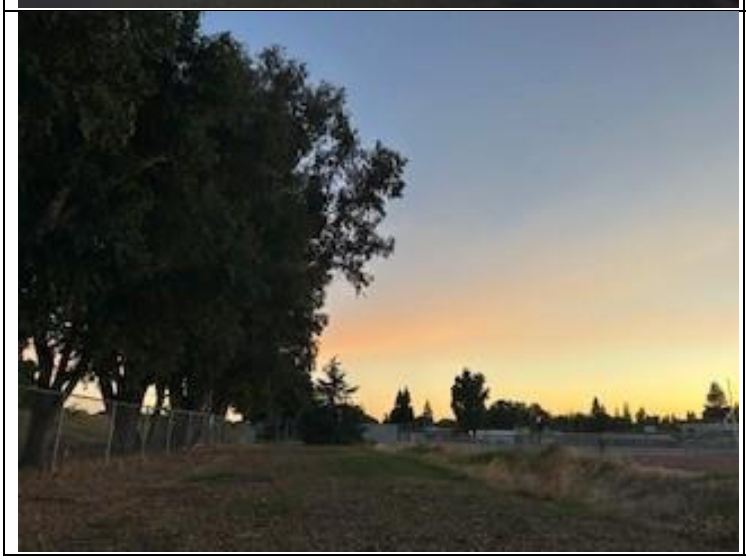
Recommendations

No indications of roosting bats were found within the existing Rio Americano High School campus and adjacent trees, no impacts to roosting bats are expected as a result of the proposed project improvements, and no further actions are recommended for roosting bats.

The existing Raider Stadium and adjacent ruderal habitat were confirmed as bat foraging habitat. However, because Raider Stadium is currently used for athletic practices, competitions and other events during the evening hours with the use of temporary mobile lights, the proposed improvements are expected to result in minimal increases in disturbance and resulting potential loss of foraging habitat. In addition, only minor foraging activity was detected during surveys, and abundant, generally superior foraging habitat exists in the American River Parkway just to the south of Raider Stadium. Therefore, the potential loss of the relatively small, limited quality foraging habitat provided by the existing Raider Stadium during the evening hours would result in a less-than-significant impact, and no further actions are recommended for foraging bats.

Photo Exhibit Rio Americano High School Improvements Project

	**Photograph 1**. Raider Stadium with the row of large trees adjacent on the south. Photograph facing west.
	**Photograph 2.** Row of trees and ruderal grasses adjacent to Raider Stadium on the south. Photograph facing west.
	**Photograph 3.** Example of a small piece of sloughing bark.

	**Photograph 4.** Example of existing nighttime lighting on the west end of Raider Stadium. Photograph facing north.
	**Photograph 5.** Western half of the emergence survey area, backlit at dusk. Photograph facing west.