Fullerton Joint Union High School District

SONORA HIGH SCHOOL MATH & SCIENCE CLASSROOM BUILDING MODERNIZATION AND FIELD IMPROVEMENTS PROJECT

March 2026 | Initial Study / Mitigated Negative Declaration



PLACEWORKS

March 2026 | Initial Study / Mitigated Negative Declaration

SONORA HIGH SCHOOL MATH & SCIENCE CLASSROOM BUILDING MODERNIZATION AND FIELD IMPROVEMENTS PROJECT

For Fullerton Joint Union High School District

Fullerton Joint Union High School District
Vince Madsen, Senior Director of Facilities, M&O and Transportation
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ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

Project Title: Sonora High School Math & Science Classroom Building Modernization and Field Improvements Project

Lead Agency Name and Address:
Fullerton Joint Union High School District
1027 South Leslie Street
La Habra, CA 90631

Contact Person and Phone Number:
Vince Madsen, Senior Director of Facilities, M&O and Transportation
714.680.5601

Project Location:
401 S Palm Street
La Habra, California
Assessor's Parcel Numbers 296-021-01 and 296-402-13

Project Sponsor's Name and Address:
Fullerton Joint Union High School District
1027 South Leslie Street
La Habra, CA 90631

General Plan Designation: Public Facilities

Zoning: Civic Utility

Description of Project:
The proposed project would demolish exterior building elements, such as pavers, a bench, and an irrigation line, and interior elements of building 400, including but not limited to flooring, electrical elements, interior walls, casework (desk/cabinets), doors and door frames, and HVAC systems. The proposed project would replace the doors, plumbing, fire alarm system, fume hoods, roofing, and HVAC systems; construct a new roof deck, roof hatch, floor sinks, and epoxy countertops and sinks; and install new flooring, lab casework, and metal casework for flammable and acid storage, and the exterior would be repainted. The proposed project would reconfigure the classroom spaces to include two biology classrooms and two chemistry

classrooms. The proposed project would result in net decrease in classrooms from six to four within the improved area of the Math and Science wing in building 400. The modernization would maintain the existing building 400 footprint.

To accommodate improvements to the track and field, the proposed project would involve demolition of existing features, including the retaining wall, storage building, concrete slabs, curbs, and ramp, as well as track and field equipment such as goal posts, obstacle course elements, long jump and shot put areas, storage containers, a vehicle barrier, a storm drain inlet, one tree, and existing bleachers, stairs, and fencing. The District would construct a new single-story, 2,615-square-foot restroom building and install upgraded athletic facilities. The project would include paving the track with a synthetic surface, installing synthetic turf on the field, and constructing a new triple jump/long jump area with a sand pit and catcher. Permanent bleachers with a capacity of 1,464 seats—a net increase of 934 seats—would be added along with pedestrian lighting, a new fire hydrant, and a 24-foot scoreboard on the west side of the field. Additional features would include four golf bays, a putting green, a shot put and discus area, a high jump area, and a PA system mounted approximately 20 feet above grade on the field lights. The proposed project would install 24 field lights (light fixtures and poles) at the baseball and softball fields, the track and field, and the existing animal grazing area.

As part of the proposed project, the District would also convert a 42,146-square-foot portion of the existing animal grazing area into an auxiliary field. Improvements would include installation of new sod and irrigation, a 6-inch concrete curb, field striping, and field lighting.

The proposed project would construct a new concrete walkway around the track, bleachers, and a ramp with railing at the south end. No off-site improvements are proposed. Landscaping with shrubs, trees, and irrigation, would be installed in the northwestern, western, southwestern, and eastern perimeters of the proposed new track and field. Additionally, an approximately 16,000-square-foot bioretention area consisting of grasses and boulders would be installed on the western perimeter of the track and field and a putting green with artificial turf would be added west of the track and field. Chain-link fencing and ornamental gates would enclose the track and field, and the auxiliary field would have a 6-foot-tall chain-link fence with an 8-foot-wide double pedestrian gate. Continuous cattle fencing would surround the agricultural livestock area, connecting to existing fencing, and a 4-foot-wide pedestrian gate would provide access between the auxiliary field and livestock area. Additionally, the project would replace a small portion of the existing wrought-iron picket fence and ADA compliant pedestrian gate at the campus entrance south of the gymnasium would be installed.

The proposed project would introduce evening practices between 3:30 pm and 9:00 pm for four sports—softball, football, soccer, and flag football— and other activities following installation of field lighting; these practices would not include spectators. The project would also allow for periodic schoolwide assemblies at the track and field during regular school hours with the

addition of new bleachers. No other operational changes are proposed—there would be no increase in participants, spectators, or events, and no changes to school hours or seasons. Construction would occur in a single phase, anticipated to begin in March 2027 and conclude in July 2027.

Surrounding Land Uses and Setting:
Sonora High School is surrounded by residential uses to the north; residential, and commercial uses to the west; light manufacturing to the south; and residential (mobile home park) and light manufacturing uses to the east. The residential uses to the north of the campus are in the city of Brea, and the closest sensitive receptors to the project site are single-family residences bordering the project site to the north and west.

Other Public Agencies Whose Approval Is Required (e.g., Permits, Financing Approval, or Participating Agreement):

- **Santa Ana Regional Water Quality Control Board (Region 8):**
  - Coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit for stormwater discharges associated with construction activities.
- **California Department of General Services, Division of the State Architect (DSA):**
  - Review and approval of school building plans for structural safety, fire/life safety, and accessibility compliance in accordance with Title 24 of the California Code of Regulations.
- **California Department of Education (CDE), School Facilities Planning Division:**
  - Review of school site layout and verification of compliance with educational facility design standards and siting criteria.

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The proposed project would comply with tribal consultation requirements pursuant to Assembly Bill 52 (AB 52). The District will send letters to the applicable Native American tribes inviting the individual Native American tribes to consult on the proposed project per the requirements under Public Resources Code Section 21080.3.1.

Fifteen tribes were invited to consult based on the District's AB 52 list—Agua Caliente Band of Cahuilla Indians, Gabrieleno Band of Mission Indians - Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino /Tongva Nation, Gabrielino-Tongva Tribe, Juaneno Band of Mission Indians Acjachemen Nation – Belardes, Juaneno Band of Mission Indians, La Jolla Band of Luiseno Indians, Pala Band of Mission Indians, Pauma Band of Luiseno Indians, Pechanga Band of Luiseno Indians, Pechanga Band of Mission Indians, Rincon Band of Luiseno

Indians, San Fernando Band of Mission Indians, San Luis Rey Band of Mission Indians, and Soboba Band of Luiseno. The invitation letters were sent to tribes on January 23, 2026, via mail to the available addresses.

On January 28, 2026, the District received a request for consultation from the Juaneno Band of Mission Indians Acjachemen Nation 84A regarding the proposed project. The Juaneno Band of Mission Indians Acjachemen Nation 84A provided mitigation measures to be incorporated into the IS/MND that address the inadvertent discovery of tribal cultural resources and to minimize the potential impacts to tribal cultural resources. The mitigation measures were incorporated into this IS/MND for the proposed project. Tribal consultation with the Juaneno Band of Mission Indians Acjachemen Nation 84A pursuant to AB 52 was concluded on March 3, 2026 for the proposed project.

On February 2, 2026, the District received a request for consultation from the Gabrieleno Band of Mission Indians - Kizh Nation regarding the proposed project. The Gabrieleno Band of Mission Indians - Kizh Nation provided mitigation measures to be incorporated into the IS/MND that address the inadvertent discovery of tribal cultural resources and to minimize the potential impacts to tribal cultural resources. The mitigation measures were incorporated into this IS/MND for the proposed project. Tribal consultation with the Gabrieleno Band of Mission Indians - Kizh Nation pursuant to AB 52 was concluded on March 3, 2026 for the proposed project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project; that is, at least one impact is a "Potentially Significant Impact," as indicated by the checklist for that factor in Chapter 3, *Environmental Evaluation*.

☐ Aesthetics	☐ Agriculture / Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date 3/30/2026
DIRECTOR OF FACILITIES	

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1. INTRODUCTION

1.1 OVERVIEW

The Fullerton Joint Union High School District (District or FJUHSD) proposes to modernize a portion of the Math and Science Building (building 400); install field lighting at the baseball and softball fields; and install bleachers, field lighting, and a public address (PA) system at the track and field area, along with other related improvements at the Sonora High School campus. The proposed project would include construction of a new restroom building with storage and custodial space, a paved synthetic track with a synthetic turf field, pedestrian lighting and walkways, golf bays, a putting green, a shot put area, a triple/long jump sand pit with a sand catcher, discus and shot put pads, a high jump area, goal posts, a scoreboard, fencing and gates, a new fire hydrant, and landscaping. The District also proposes to convert a portion of the existing animal grazing area into an ancillary field with new sod, irrigation, field striping, field lighting, and fencing.

In compliance with the California Environmental Quality Act (CEQA), the District, as lead agency, is preparing the environmental documentation for the proposed project to determine if implementation and associated discretionary actions would have a significant impact on the environment. As defined by Section 15063 of the CEQA Guidelines, an initial study (IS) is prepared primarily to provide the lead agency with information to use as the basis for determining whether an environmental impact report (EIR), negative declaration, or mitigated negative declaration (MND) would provide the necessary environmental documentation and clearance for the proposed project. This IS has been prepared to support the adoption of an MND.

1.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The environmental compliance process is governed by the California Environmental Quality Act (CEQA) and the CEQA Guidelines (Public Resources Code [PRC], Section 21000 et seq.; California Code of Regulations [CCR], Title 14, Section 15000 et seq.). CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of projects and to identify ways to avoid or reduce the environmental effects through feasible alternatives or mitigation measures. Compliance with CEQA applies to California government agencies at all levels: local, regional, and State agencies, boards, commissions, and special districts (such as school districts and water districts). The Fullerton Joint Union High School District is the lead agency for the proposed project and is therefore required to conduct

an environmental review to analyze the potential environmental effects associated with the proposed project.

PRC Section 21080(a) states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies…." In this case, the lead agency has determined that an Initial Study is required to determine whether there is substantial evidence that construction and operation of the proposed project would result in environmental impacts.

A "project" means the whole of an action that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:

- An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100 to 65700.
- An activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
- An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. (14 CCR section 15378[a]).

The proposed discretionary actions by the project applicant constitute a "project" because the activity would result in a direct physical change in the environment and would be undertaken by a public agency. All "projects" in the State of California are required to undergo an environmental review to determine the environmental impacts associated with implementation of the project.

One of the primary objectives of CEQA is to enhance public participation in the planning process, so public involvement is an essential feature of CEQA. Community members are encouraged to participate in the environmental review process, request to be notified, monitor newspapers for formal announcements, and submit substantive comments at every possible opportunity afforded by the lead agency. The environmental review process provides several opportunities for the public to participate through public notice and public review of CEQA documents and at public meetings.

1.3 INITIAL STUDY

The purpose of the initial study is to 1) provide the lead agency with information to use as the basis for deciding the proper type of CEQA document to prepare; 2) enable the lead agency to modify a project, mitigating adverse impacts before an environmental impact report (EIR) is prepared, thereby enabling the project to qualify for a negative declaration; 3) assist in the preparation of an EIR, if one is required; 4) facilitate environmental assessment early in the design of a project; 5) provide documentation of the factual basis for the findings in a mitigated negative declaration (MND) or negative declaration (ND); 6) eliminate unnecessary EIRs; and 7) determine if a project is covered under a previously prepared EIR. When an initial study identifies the potential for immitigable significant environmental impacts, the lead agency must prepare an EIR (14 CCR section 15064); however, if all impacts are found to be less than significant or can be mitigated to a less-than-significant level, the lead agency can prepare an ND or an MND, which incorporates mitigation measures into the project (14 CCR section 15070).

1.4 MITIGATED NEGATIVE DECLARATION

The MND includes information necessary for agencies to meet statutory responsibilities related to the proposed project. State and local agencies will use the MND when considering any permit or other approvals necessary to implement the project. A list of the environmental topics that have been identified for study in the MND is provided in the *Environmental Checklist* that precedes Chapter 1 of this initial study.

1.5 LEVELS OF SIGNIFICANCE

The following terminology is used to describe the level of significance of impacts. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The project would result in no adverse effect on the environment.
- **Less than significant.** The project would not exceed the established significance criteria.
- **Less than significant with mitigation incorporated.** The project would exceed the established significance criteria without mitigation measures, but one or more mitigation measures would successfully reduce the impact to a less-than-significant level.
- **Potentially significant.** The project would exceed the established significance criteria, and either no feasible mitigation measures are available to reduce the impact to a less-than-significant level, or more analysis is needed to determine if feasible mitigation measures are

available to reduce the impact to a less-than-significant level. If any impact is identified as potentially significant, an EIR is required.

Mitigation Measures. If, after incorporation and implementation of federal, State, and local regulations, there are still significant environmental impacts, then feasible and project-specific mitigation measures are required to reduce impacts to less-than-significant levels. Mitigation measures must further reduce significant environmental impacts above and beyond compliance with federal, State, and local laws and regulations. Mitigation under CEQA Guidelines Section 15370 includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

2. PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Sonora High School (SOHS and campus) is located at 401 S Palm Street (Assessor's Parcel Numbers [APN] 296-021-01 and 296-402-13) in the northern portion of the city of La Habra (City), California (see Figure 1, *Regional Location*). The Sonora High School Math & Science Classroom Building Modernization and Field Improvements Project (proposed project) would be developed within approximately 18.25 acres of the campus (see Figure 2, *Local Vicinity*, and Figure 3, *Aerial Photograph with Photo Locations*).

2.1.1 Regional Setting

The city of La Habra is surrounded by the city of La Habra Heights in Los Angeles County and unincorporated Los Angeles County to the north; the cities of Whittier and La Mirada in Los Angeles County and unincorporated Los Angeles County to the west; the city of Fullerton to the south; and the cities of Brea and Fullerton to the east. Regional access is provided by State Route 90 (SR-90) and State Route 39 (SR-39), which are approximately 0.75 mile south and 2.3 miles west of the campus, respectively (see Figure 1).

2.1.2 Local Setting

The campus is bordered by residential uses to the north and west, industrial uses to the south, and S Palm Street to the east.

2.2 ENVIRONMENTAL SETTING

2.2.1 Existing Land Use

SOHS is a 37.4-acre campus that encompasses two District-owned properties. SOHS is a 9th through 12th grade school with a 2024 enrollment of 1,708 students. It has an enrollment capacity of 2,673 students. The campus includes six permanent academic buildings, four shade stables, a greenhouse with a crop garden, six storage containers, three storage structures, eight tennis courts, a swimming pool, a school blacktop with painted play courts, a cattle grazing area, two baseball fields, two softball fields and a dirt track and field, two parking lots (one with

solar EV systems), landscaping, and paved walkways throughout the campus. See Figure 3, *Aerial Photograph with Photo Locations*.

The project site includes an existing track and field, an animal grazing area, two softball fields, two baseball fields, dugouts, portable bleachers, a long jump area, batting cages, a storage shed, fencing, landscaped areas, trees, and paved surfaces. Existing bleachers have a capacity of 530 seats.

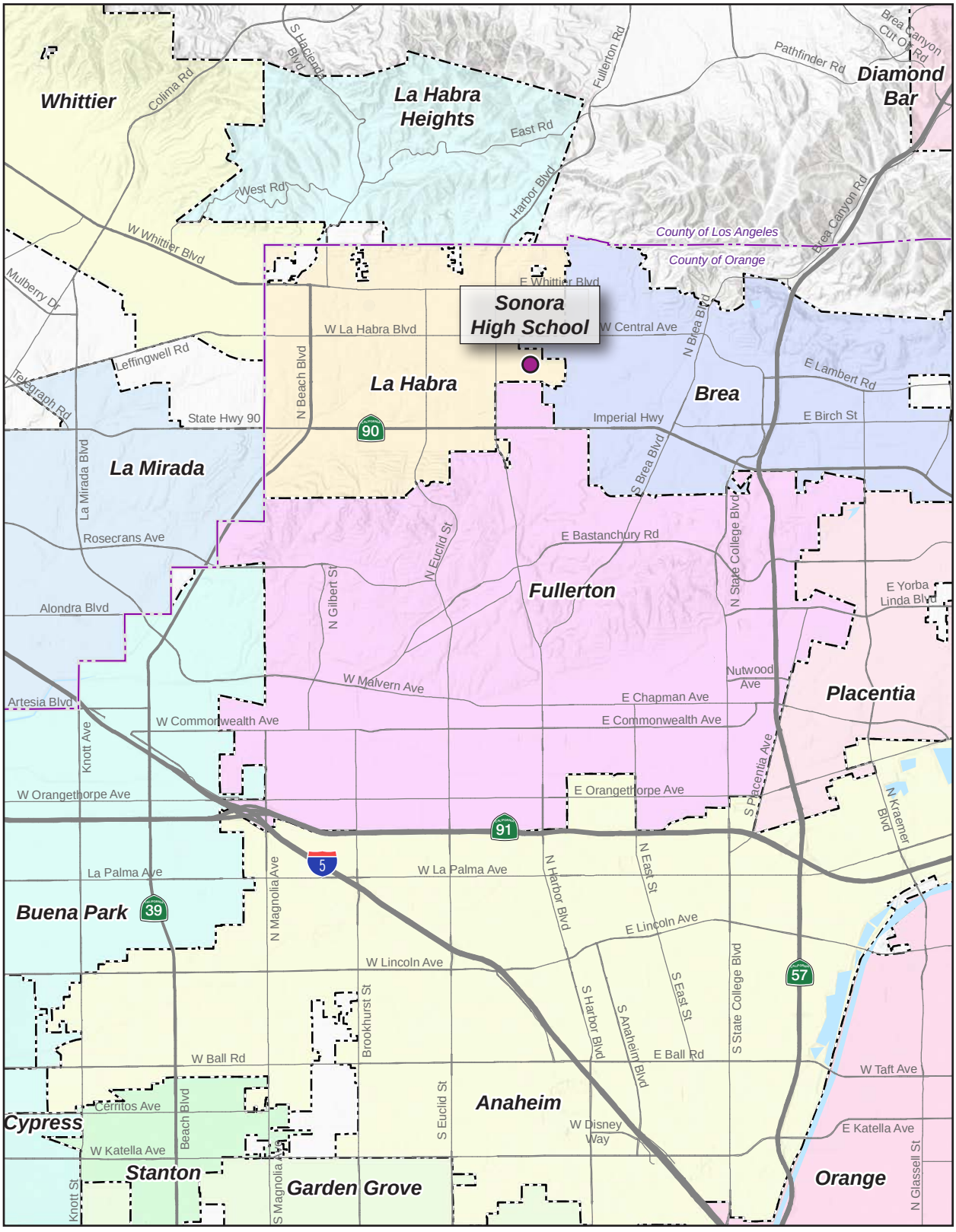
In addition, the project site includes the northern half of building 400 in the central portion of the campus. Currently this portion of building 400 has two biology classrooms with a biology storage room, a medical careers classroom, a physics classroom with a stockroom, two chemistry classrooms with a chemistry storage area, science court, stockroom, work room, and electrical closet. The project site is primarily flat with a slight slope east to west. See Figure 3, Figure 4, *Project Site Photographs*, and Figure 5, *Surrounding Photographs*.

2.2.2 Parking and Access

The campus has two parking lots: one in the northeastern area of the site and another in the southeastern and eastern portion of the campus. Vehicular access to the northeastern parking lot is provided by two combined ingress-egress driveways along S Palm Street and includes a designated student pick-up and drop-off zone serving the athletic facilities. The southeastern parking lot is accessed via a single combined ingress-egress driveway, also along S Palm Street. The internal circulation connection between the two parking lots functions as an additional designated pick-up and drop-off zone for the main school building and includes additional parking spaces. The main surface parking lot also has solar electric vehicle charging systems.

Pedestrian access to the campus is provided from sidewalks along public rights-of-way bordering the campus to the east. Alternative forms of transportation to the campus include bicycling and public bus service. A bicycle lane is available along E La Habra Boulevard, approximately 0.25 mile north of the campus. La Habra Boulevard, north of the campus, is a designated corridor featuring Class II bicycle lanes. Orange County Transportation Authority operates bus routes 129, 143, and 37 approximately 0.28 mile northeast, 0.3 mile west, and 0.35 mile west of the campus, respectively.

Figure 1 - Regional Location



City Boundary

County Boundary

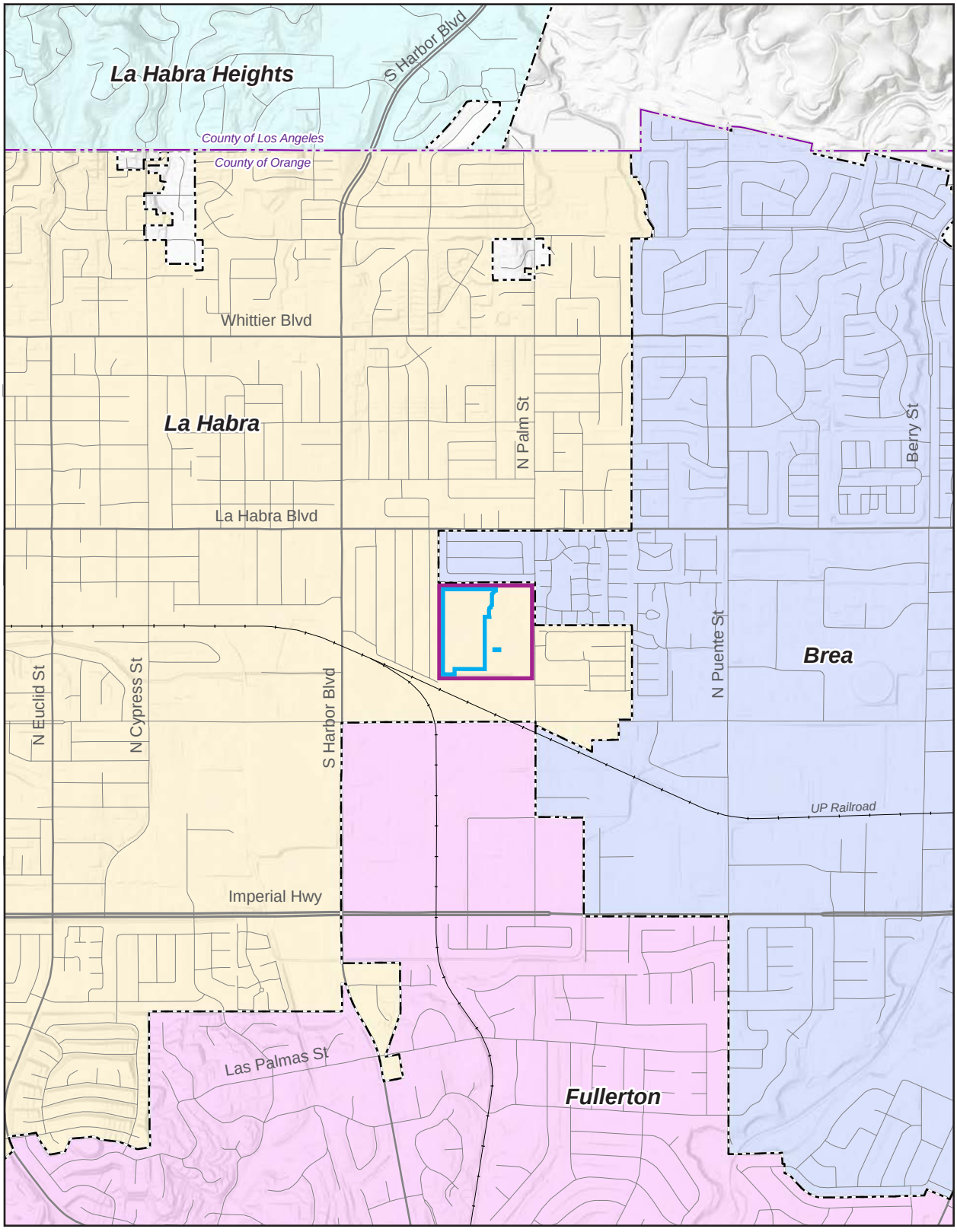
Note: Unincorporated county areas are shown in white.

Source: Nearmap 2025.

0 1.5
Scale (Miles)

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Figure 2 - Local Vicinity

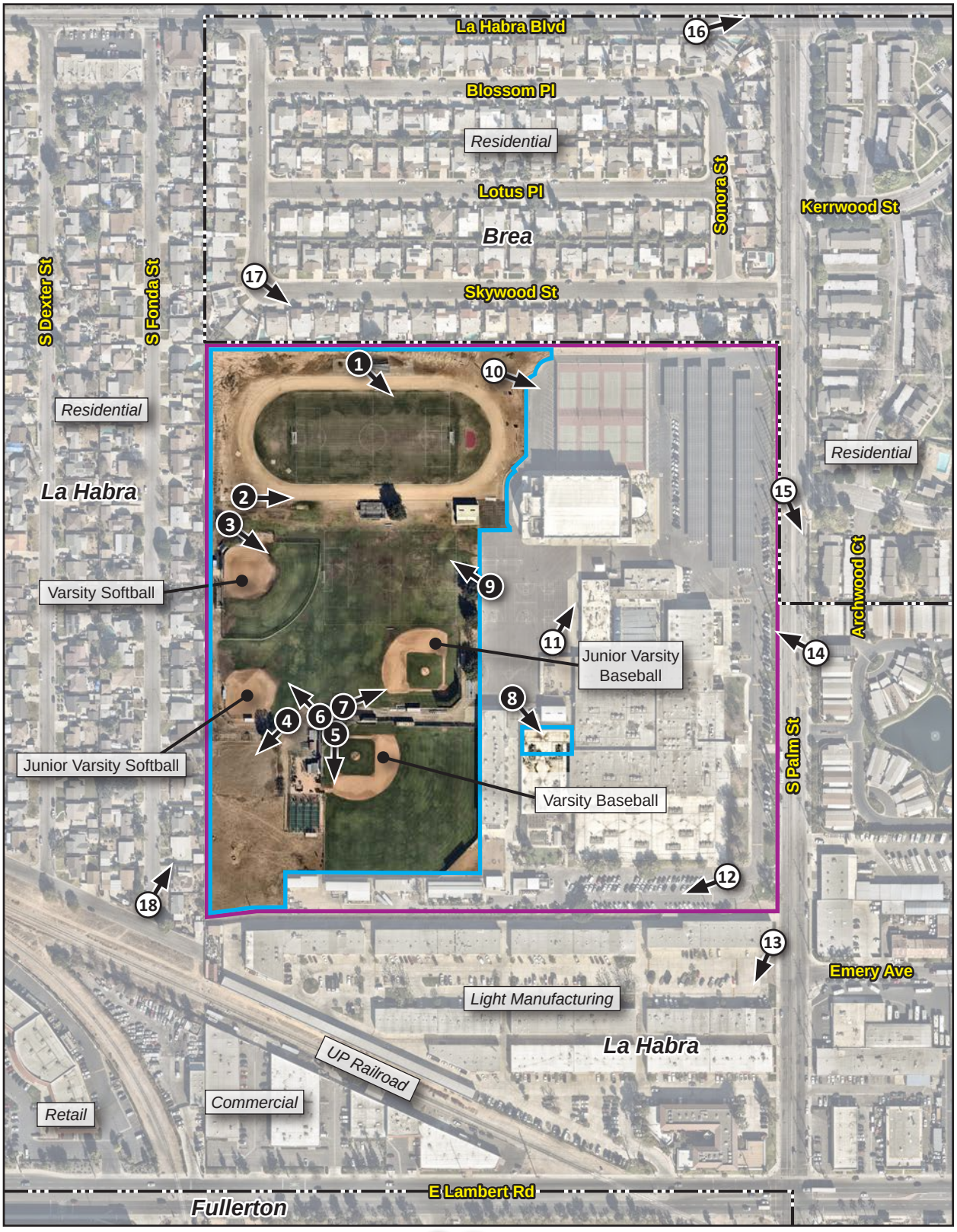


Note: Unincorporated county areas are shown in white.

Source: Nearmap 2025.

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Figure 3 - Aerial Photograph with Photo Locations



Sonora High School Boundary
Project Boundary
City Boundary

Photograph Location and Direction (18)

0 300
Scale (Feet)

Source: Nearmap 2025.

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Figure 4 - Project Site Photographs



View 1. From the northern end of the track and field, looking southeast at the track and field with portable bleachers on the project site.



View 2. From the western end of the track and field, looking east at the track and field with portable bleachers on the project site.



View 3. From the southern end of the track and field, looking southeast at the varsity softball field with a backstop, portable bleachers, and surrounding landscaping on the project site.



View 4. From the eastern end of the junior varsity softball, looking southwest at the animal grazing area, with a storage area on the project site.



View 5. From the northern end of the varsity baseball field, looking south at the varsity baseball field with a backstop, and portable bleachers on the project site.



View 6. From the northern end of the varsity baseball field, looking northwest at the junior varsity baseball field, and varsity softball field on the project site.



View 7. From the northern end of the varsity baseball field, looking northeast at the junior varsity baseball field, and soccer field on the project site.



View 8. From the southern end of the school blacktop looking, southeast at the science classroom building on the project site.



View 9. From the eastern end of the project site, looking northwest at the junior varsity baseball field, and soccer field on the project site.

Source: PlaceWorks 2025.

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Figure 5 - Surrounding Site Photographs



View 10. From the northern end of the track and field, looking east at the gymnasium, a vehicle access roadway to the northern parking lot, and tennis courts surrounding the project site.



View 11. From the eastern end of the project site, looking southeast at the classroom buildings , gymnasium, blacktop, and storage countiers surrounding the project site.



View 12. From the eastern portion of the campus, looking west at the southern campus parking lot and manufacturing uses surrounding the project.



View 13. From the southeastern end of campus, looking at the manufacturing uses along S Palm Street surrounding the campus.



View 14. From the eastern side of S Palm Street, looking northwest at the campus surrounding the project site.



View 15. From the eastern side of campus, looking southeast at the residential uses surrounding the campus.



View 16. From the southern portion of E La Habra Boulevard, looking northeast at the commercial uses at the S Palm Street and E La Habra Boulevard intersection.



View 17. From the southern end of Vallejo Street, looking southeast at the residential uses along Skywood Street surrounding the project site.



View 18. From the southern end of S Fonda Street, looking northeast at the residential uses along S Fonda Street surrounding the project site.

Source: PlaceWorks 2025.

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2.2.3 Surrounding Land Use

SOHS is surrounded by residential uses to the north; residential, and commercial uses to the west; light manufacturing to the south; and residential (mobile home park) and light manufacturing uses to the east (Figure 2). As shown in Figure 2, the residential uses to the north of the campus are in the city of Brea. The closest sensitive receptors to the project site are single-family residences bordering the project site to the north and west.

The project site is surrounded by residential uses to the north and west; light manufacturing to the south; and campus uses to the east.

2.2.4 Existing General Plan Land Use and Zoning

The campus and project site have a General Plan Land Use land designation of Public Facilities and a zoning designation of Civic Utility (La Habra 2024a, 2024b).

The properties surrounding the campus have General Plan land use designations of Low Density (Residential), Residential Multi-Family 1, Neighborhood Commercial, Medium Density (Residential) to the north; Low Density (Residential), Commercial Highway, Medium Density (Residential) to the west; Light Industrial and General Industrial to the south; and Mobile Home and Medium Density Residential to the east (Brea 2025; La Habra 2024a). The associated zoning designations are Single-Unit Dwelling (R-1c), Limited Multi-Unit Dwelling (R-3), Commercial (C-2), and Multiple Family (R-2) to the north; R-1c, C-2, R-3, Multi-Unit Dwelling (R-4), and La Habra Boulevard Specific Plan (SP-1) to the west; Light Manufacturing (M-1) and General Industrial (M-2) to the south; and M-1, Mobile Home Park (MHP), and Multiple Family (R-3) to the east (Brea 2025; La Habra 2024b).

2.2.5 Existing Programs and Activities

The campus has five different bell schedules throughout the school year. During regular schedule days classes begin at 8:30 am and conclude at 3:30 pm However, students with zero period begin at 7:26 am, and after-school activities continue after class dismissal. The start times at SOHS range from 7:22 am to 8:30 am, and dismissal times range from 1:15 pm and 3:30 pm The proposed project would not introduce any new games or events at the fields or on campus. Major spectator events, such as varsity football, will continue to occur at Buena Park, Fullerton Union, and La Habra High Schools; freshman and junior varsity (JV) football games are played at SOHS.

The SOHS track and field has portable bleachers with an existing design capacity of 530 spectators. Existing track and field uses include but are not limited to band and color guard

camp, soccer practice, football practice; flag football practice, La Habra Police Department (LHPD) training, and other events throughout the year. Such events throughout the year may be Monday through Saturday from 7:00 am to 9:00 pm, and range from 50 participants (soccer practice) to up to 500 participants (LHPD training). Practices do not have spectators.

The existing varsity and junior varsity softball fields and varsity and junior varsity baseball fields support band and color guard summer practice; baseball practice, games, and events; softball practice, games, and events; Sonora Junior High football camp; football practice; Real La Habra Football Club; and SoCal Fellowship of Christian Athletes Baseball Camp. These events occur throughout the year (excluding the months of May and September) Monday through Saturday between 8:00 am and 9:00 pm, and range from 30 participants (softball practice) to up to 200 participants (Coach Tourville Memorial JV Boys Soccer Tournament).

The southwestern portion of the project site is developed with an existing animal grazing area just south of the junior varsity softball field. The central portion of the project site includes building 400. These areas are used for SOHS's classes and curriculum, and no sports practices, games, or activities currently occur there.

Portable speakers are currently used as needed at the project site.

2.3 PROJECT CHARACTERISTICS

2.3.1 Proposed Land Use

The proposed project includes two primary components: (1) modernization of the northern half of the existing Math and Science Classroom Building (building 400) and (2) track and field improvements.

Math and Science Classroom Modernization

The proposed project would demolish exterior building elements of building 400, such as pavers, a bench, and an irrigation line, and interior elements, including but not limited to flooring, electrical elements, interior walls, casework (desk/cabinets), doors and door frames, and HVAC systems. See Figure 6, *Proposed Project Site Plan*.

The proposed project would replace the doors, plumbing, fire alarm system, fume hoods, roofing, and HVAC systems; construct a new roof deck, roof hatch, floor sinks, and epoxy countertops and sinks; and install new flooring, lab casework, and metal casework for flammable and acid storage. In addition, the exterior of building 400 would be repainted.

The proposed project would reconfigure the classroom spaces to include two biology classrooms and two chemistry classrooms. The biology classrooms would be 1,963 sf and 2,027 sf. The chemistry classrooms would be 1,997 sf and 2,197 sf. The modernization also includes a 311 sf biology storage room, a 233 sf chemical storage room, a 380 sf conference room, a custodial room, and a hallway. The proposed project would result in net decrease in classrooms from six to four within the improved area of the Math and Science wing of building 400. The modernization would maintain the existing building 400 footprint.

Track and Field Improvements

To accommodate the improvements at the track and field, the proposed project would remove the existing retaining wall, storage building, concrete slabs curbs, a ramp, track and field equipment (i.e., field goal post, obstacle course, long jump areas, shot put area), storage containers, a vehicle barrier, a storm drain inlet, four trees, and bleachers, stairs, and fencing.

The proposed project would install a synthetic track and synthetic turf field. A new triple jump/long jump area and a sand pit with a sand catcher would be constructed on the west side of the field. The proposed project would install permanent bleachers at the track and field to accommodate SOHS students. The new bleachers would have a capacity of 1,464 seats and would be approximately 18 feet in height. Compared to existing conditions, the proposed project would result in a net increase of 934 seat bleacher capacity. The track and field improvements would include the installation of pedestrian lighting, four golf bays, a putting green, a shot-put area, discus and shot-put pads, a high jump area, two goal posts, and a new fire hydrant. The proposed project would also install a 24-foot-wide digital scoreboard on the west side of the track and field. The proposed public address (PA) system (i.e., speakers) would include four speakers and would be installed on field lights F1 through F4 at the track and field and would be placed approximately 20 feet above grade (see Figure 6).

As part of the improvements at the track and field, a new single-story, 2,615 sf restroom building would be constructed in the southeast corner of the track and field. The proposed restroom building would include men's, women's, and unisex restrooms; storage room; custodial room; and an electrical room (see Figure 6).

As part of the proposed project, the District would also convert a 42,146 sf portion of the existing animal grazing area into an auxiliary field with new sod and irrigation. Other improvements to the space include a 6-inch concrete curb, field striping, and field lights.

The proposed project would install field lighting at the baseball and softball fields, the track and field, and the existing animal grazing area. As shown on Figure 7, *Sports Field Lighting Plan and Horizontal Light Spill*, and Figure 8, *Sports Field Lighting Plan and Vertical Light Spill*, 24 field lights (light fixtures and poles) would be installed as part of the proposed project.

- Eight field lights would be along the perimeter of the varsity baseball field. Four field lights would have a height of 80 feet, and four field lights would have a height of 70 feet.
- Two field lights would be at the western boundary of the proposed auxiliary field (i.e., the current animal grazing area) and have a height of 60 feet.
- Four field lights would be along the perimeter of the varsity softball field. Two field lights would have a height of 60 feet, and two field lights would have a height of 70 feet.
- The junior varsity baseball field would share lighting poles with the varsity baseball field and the varsity softball field and would include four additional light poles with a height of 80 feet.
- Six lighting poles would be along the perimeter of the track and field. Two field lights would have a height of 50 feet and four field lights would have a height of 80 feet.

Emergency and Pedestrian Access

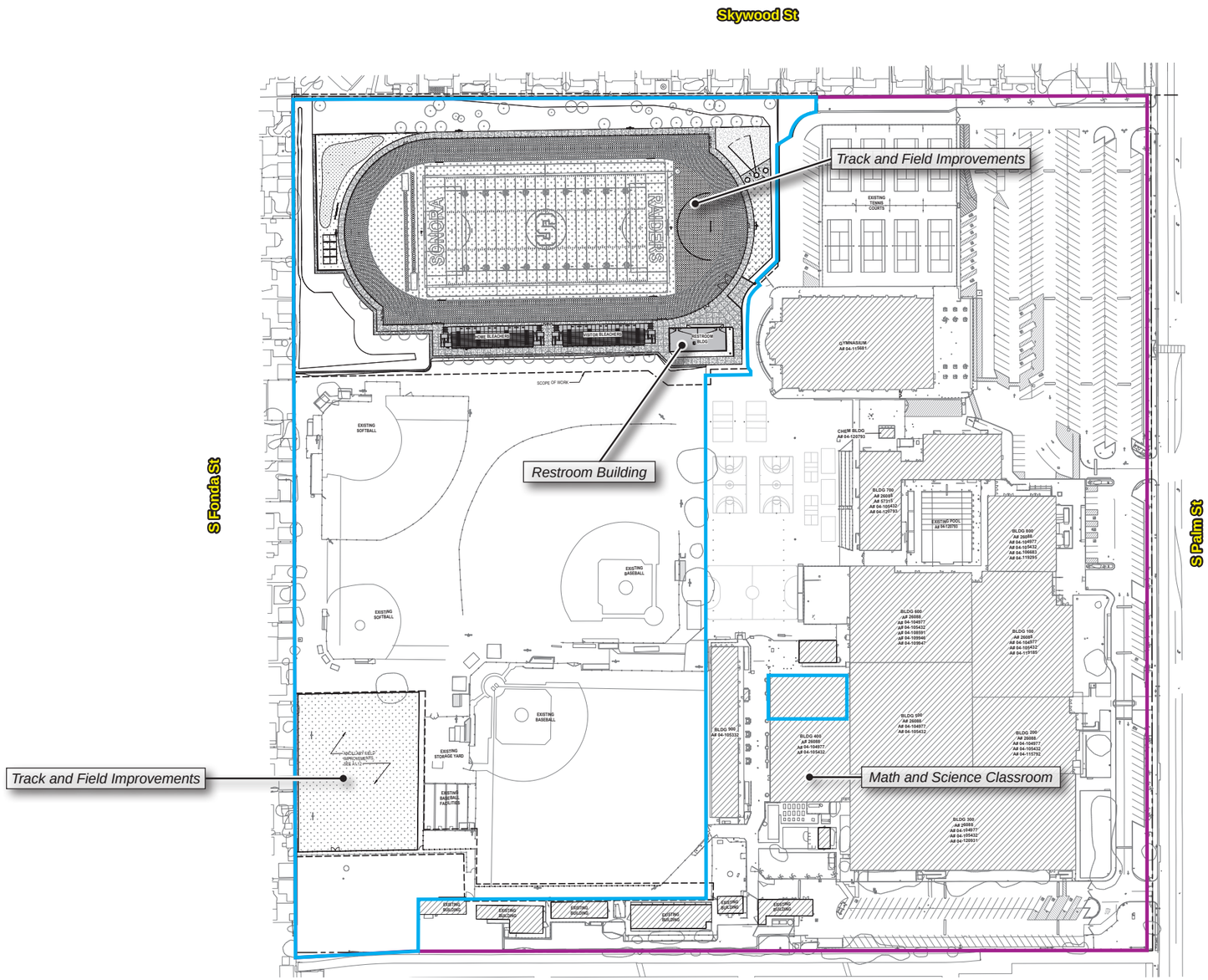
The proposed project would include a concrete walkway around the perimeter of the track and field and bleachers. The proposed project would not consist of any off-site improvements.

Landscaping and Fencing

Landscaping and irrigation would be installed around the perimeter of the track and field and bleachers. Landscaping with shrubs, trees, and irrigation would be installed in the northwestern, western, southwestern, and eastern perimeters of the proposed new track and field. An approximately 16,000 sf bioretention area consisting of grasses and boulders would be installed on the western perimeter of the track and field. The bioretention area would be designed to capture, slow, and filter stormwater runoff, allowing pollutants to be removed through soil and vegetation while promoting infiltration to reduce flooding and protect downstream water quality. Additionally, a putting green with artificial grass would be installed west of the track and field (see Figure 9, *Bioretention Area*).

Chain-link fencing and ornamental gates would be installed around the perimeter of the track and field. The proposed auxiliary field would include a chain-link fence with an 8-foot-wide double pedestrian gate. New continuous cattle fencing would be installed around the livestock area that would connect to the existing chain-link fencing at the storage yard and existing cattle area. A new walking path would provide access to the auxiliary field and cattle area. In addition, the proposed project would replace the wrought-iron picket fence and pedestrian gate at the campus entrance south of the gymnasium.

Figure 6 - Proposed Project Site Plan



Sonora High School Boundary

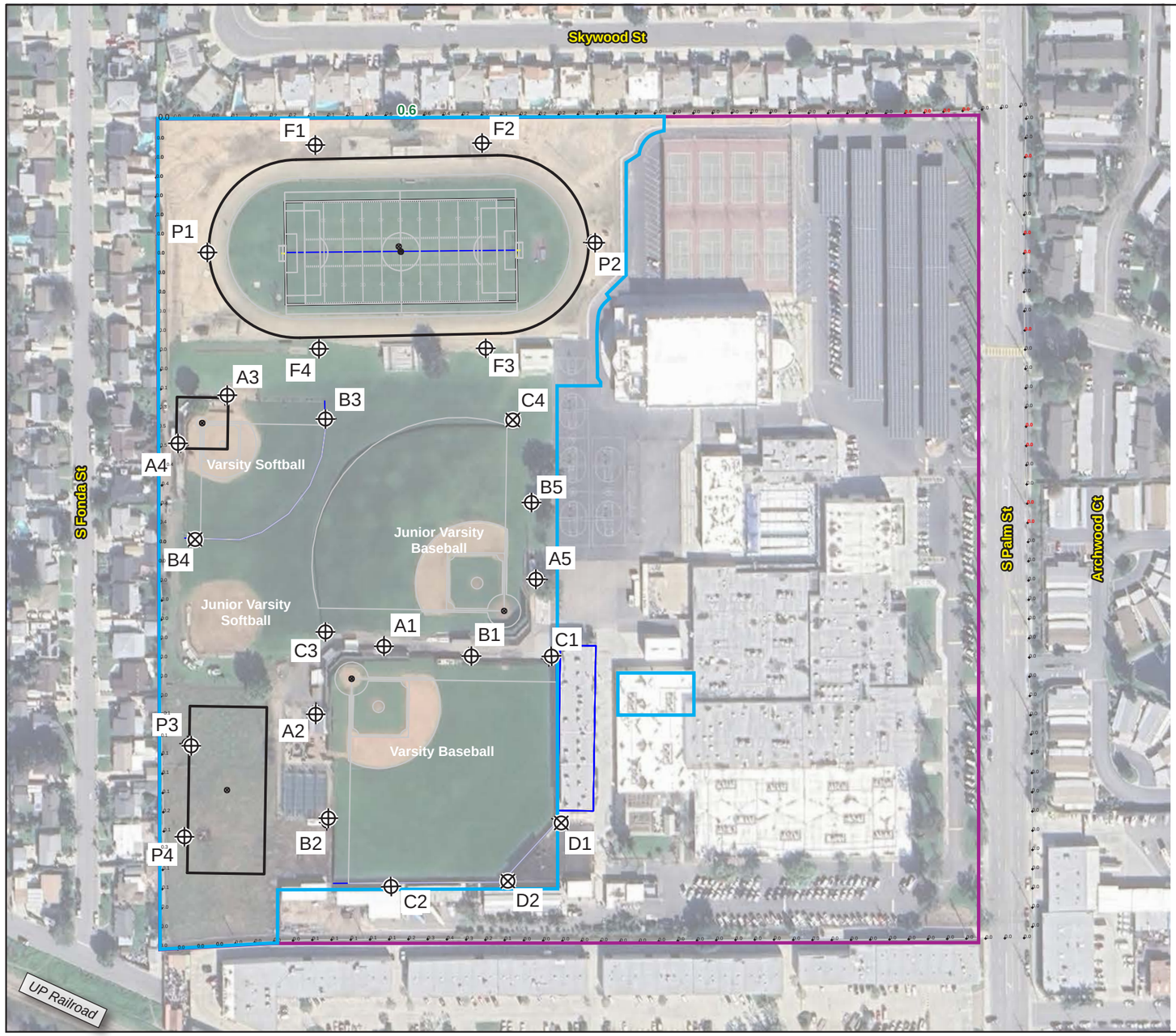
Project Boundary

Source: sgh 2025.

0 200
Scale (Feet)

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Figure 7 - Sports Field Lighting Plan and Horizontal Light Spill



Sonora High School

La Habra, CA

Grid Summary

Name:	**Spill @ 3ft.**
Spacing:	30.0'
Height:	3.0' above grade

Illumination Summary

	INITIAL HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	**0.0659**
Maximum:	0.60
Minimum:	0.00
CU:	0.00
No. of Points:	177
LUMINAIRE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I
No. of Luminaires:	**171**
Total Load:	179.70 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole/Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	80'	80'	4	TLC-LED-1200	4.68 kW	A
		80'	3	TLC-LED-1500	4.23 kW	H
		80'	2	TLC-LED-1200	2.34 kW	H
		65'	2	TLC-LED-550	1.08 kW	B
		23'	1	TLC-BT-575	0.57 kW	A
		23'	1	TLC-BT-575	0.57 kW	H
A2	80'	80'	4	TLC-LED-1200	4.68 kW	A
		80'	3	TLC-LED-900	2.64 kW	I
		65'	1	TLC-LED-550	0.54 kW	B
		16'	1	TLC-BT-575	0.57 kW	A
A3	60'	60'	3	TLC-LED-900	2.64 kW	C
		50'	1	TLC-LED-550	0.54 kW	D
		16'	1	TLC-BT-575	0.57 kW	C
A4	60'	60'	3	TLC-LED-900	2.64 kW	C
		50'	1	TLC-LED-900-A	0.89 kW	D
		16'	1	TLC-BT-575	0.57 kW	C
A5	80'	80'	4	TLC-LED-1200	4.68 kW	H
		50'	1	TLC-LED-550	0.54 kW	B
		16'	1	TLC-BT-575	0.57 kW	H
B1	80'	80'	6	TLC-LED-1500	8.46 kW	A
		80'	4	TLC-LED-1200	4.68 kW	H
		23'	1	TLC-BT-575	0.57 kW	H
		23'	1	TLC-BT-575	0.57 kW	A
B2	80'	80'	3	TLC-LED-900	2.64 kW	I
		80'	5	TLC-LED-1500	7.05 kW	A
		80'	1	TLC-LED-900	0.88 kW	A
		16'	1	TLC-BT-575	0.57 kW	A
B3	70'	70'	2	TLC-LED-1500	2.82 kW	C
		70'	2	TLC-LED-900	1.76 kW	C
		70'	4	TLC-LED-1200	4.68 kW	H
		22'	2	TLC-BT-575	1.15 kW	H
		22'	1	TLC-BT-575	0.57 kW	C
B4	70'	70'	2	TLC-LED-1500	2.82 kW	C
		70'	2	TLC-LED-900	1.76 kW	C
		16'	1	TLC-BT-575	0.57 kW	C
B5	80'	80'	5	TLC-LED-1500	7.05 kW	H
		16'	1	TLC-BT-575	0.57 kW	H
C1	70'	70'	3	TLC-LED-1200	3.51 kW	A
		50'	1	TLC-LED-550	0.54 kW	B
		16'	1	TLC-BT-575	0.57 kW	A
C2	70'	70'	2	TLC-LED-1200	2.34 kW	A
		70'	1	TLC-LED-900	0.88 kW	A
		16'	1	TLC-BT-575	0.57 kW	A
C3	80'	80'	3	TLC-LED-1500	4.23 kW	H
		80'	1	TLC-LED-1200	1.17 kW	H
		16'	2	TLC-BT-575	1.15 kW	H
C4	80'	80'	4	TLC-LED-1500	5.64 kW	H
		16'	2	TLC-BT-575	1.15 kW	H
D1-D2	70'	70'	2	TLC-LED-1200	2.34 kW	A
		70'	1	TLC-LED-900	0.88 kW	A
		16'	1	TLC-BT-575	0.57 kW	A
F1-F2	80'	80'	2	TLC-LED-900	1.76 kW	E
		80'	7	TLC-LED-1500	9.87 kW	E
		65'	1	TLC-LED-900	0.88 kW	G
		16'	2	TLC-BT-575	1.15 kW	E
F3-F4	80'	80'	8	TLC-LED-1500	11.28 kW	E
		65'	1	TLC-LED-550	0.54 kW	G
		16'	2	TLC-BT-575	1.15 kW	E
P1-P2	50'	50'	3	TLC-LED-900	2.64 kW	F
P3-P4	60'	60'	4	TLC-LED-900	3.52 kW	I
24			**171**		**179.70 kW**	

Sonora High School Boundary

Project Boundary

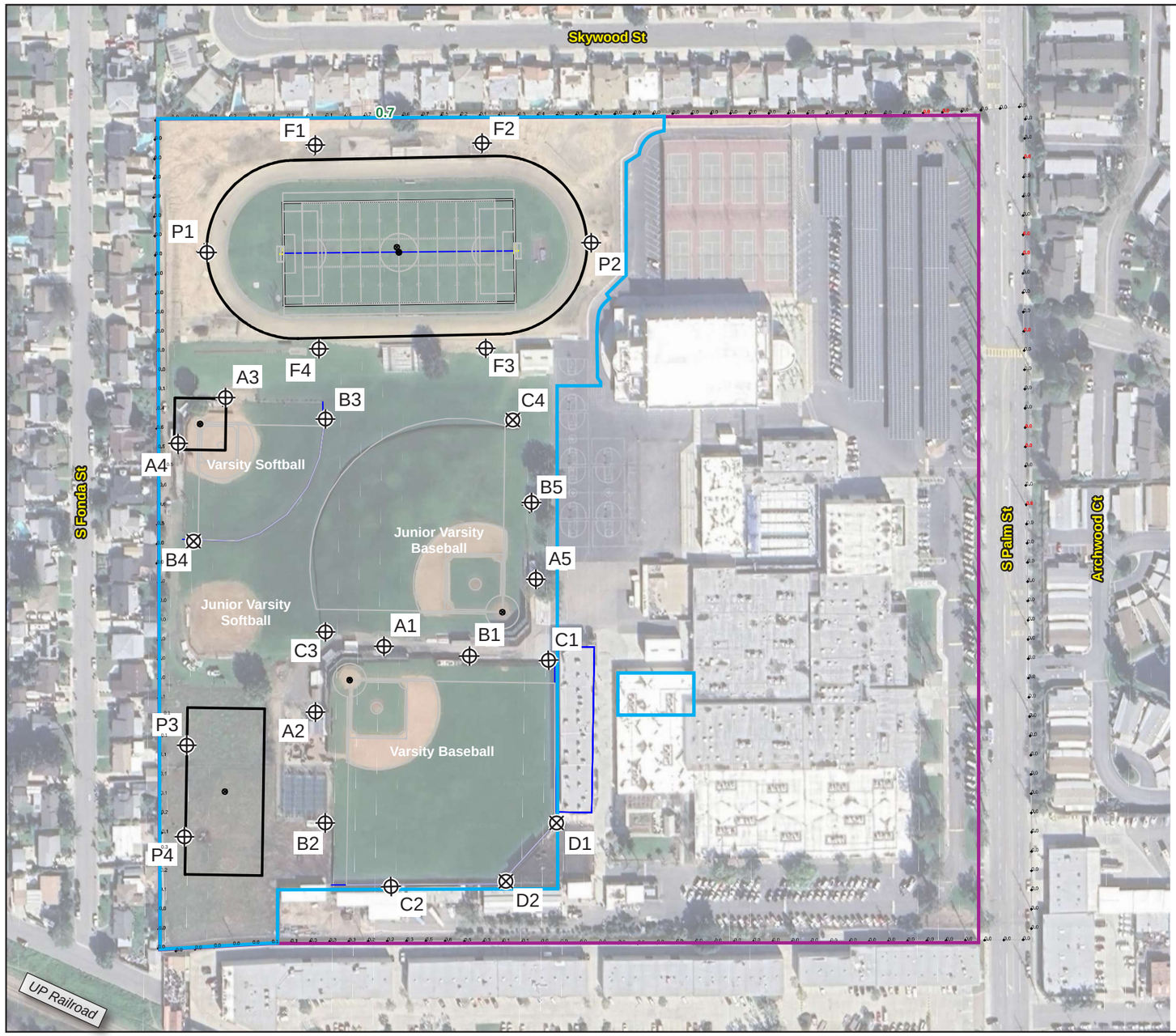
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

0 200
Scale (Feet)

Source: MUSCO 2025.

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Figure 8 - Sports Field Lighting Plan and Vertical Light Spill



Sonora High School

La Habra, CA

Grid Summary

Name:	**Spill @ 5ft.**
Spacing:	30.0'
Height:	5.0' above grade

Illumination Summary

	INITIAL MAX VERTICAL FOOTCANDLES
	Entire Grid
Scan Average:	**0.0913**
Maximum:	0.70
Minimum:	0.00
CU:	0.00
No. of Points:	177
LUMINAIRE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I
No. of Luminaires:	**171**
Total Load:	179.70 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

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		80'	2	TLC-LED-1200	2.34 kW	H
		65'	2	TLC-LED-550	1.08 kW	B
		23'	1	TLC-BT-575	0.57 kW	A
		23'	1	TLC-BT-575	0.57 kW	H
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		80'	3	TLC-LED-900	2.64 kW	I
		65'	1	TLC-LED-550	0.54 kW	B
		16'	1	TLC-BT-575	0.57 kW	A
A3	60'	60'	3	TLC-LED-900	2.64 kW	C
		50'	1	TLC-LED-550	0.54 kW	D
		16'	1	TLC-BT-575	0.57 kW	C
A4	60'	60'	3	TLC-LED-900	2.64 kW	C
		50'	1	TLC-LED-900-A	0.89 kW	D
		16'	1	TLC-BT-575	0.57 kW	C
A5	80'	80'	4	TLC-LED-1200	4.68 kW	H
		50'	1	TLC-LED-550	0.54 kW	B
		16'	1	TLC-BT-575	0.57 kW	H
B1	80'	80'	6	TLC-LED-1500	8.46 kW	A
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		23'	1	TLC-BT-575	0.57 kW	H
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		16'	1	TLC-BT-575	0.57 kW	H
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		80'	1	TLC-LED-1200	1.17 kW	H
		16'	2	TLC-BT-575	1.15 kW	H
C4	80'	80'	4	TLC-LED-1500	5.64 kW	H
		16'	2	TLC-BT-575	1.15 kW	H
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		70'	1	TLC-LED-900	0.88 kW	A
		16'	1	TLC-BT-575	0.57 kW	A
F1-F2	80'	80'	2	TLC-LED-900	1.76 kW	E
		80'	7	TLC-LED-1500	9.87 kW	E
		65'	1	TLC-LED-900	0.88 kW	G
		16'	2	TLC-BT-575	1.15 kW	E
F3-F4	80'	80'	8	TLC-LED-1500	11.28 kW	E
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		16'	2	TLC-BT-575	1.15 kW	E
P1-P2	50'	50'	3	TLC-LED-900	2.64 kW	F
P3-P4	60'	60'	4	TLC-LED-900	3.52 kW	I
24			**171**		**179.70 kW**	

Sonora High School Boundary

Project Boundary

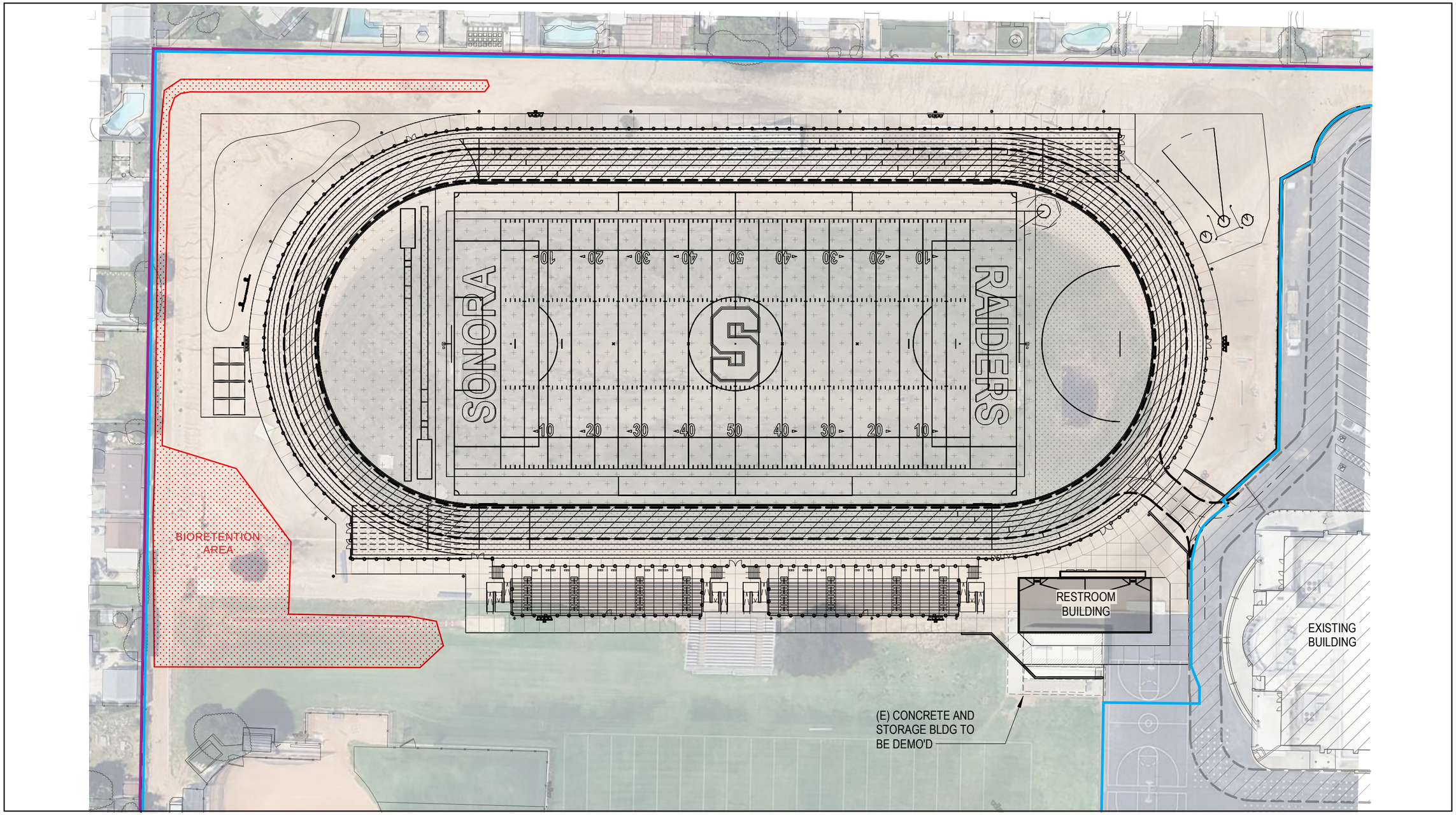
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

0 200
Scale (Feet)

Source: MUSCO 2025.

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Figure 9 - Bioretention Area



Source: sgh 2025.

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Proposed Programming and Activities

With the addition of field lights, the proposed project would add evening practices hours from 3:30 pm to 9:00 pm for four sports/activities—softball, football, soccer, and flag football practices and for other activities.

Additionally, the District would add schoolwide assemblies associated with the installation of additional bleachers at the track and field. These schoolwide assemblies would occur within the regular school operating hours and would not occur in the evening. Schoolwide assemblies are not daily events and would occur periodically throughout the school year.

No other changes to operations are proposed as part of the proposed project. Specifically, the proposed project would not result in any changes to the number of participants, time of year (season), or number of spectators for games. Further, schoolwide assemblies would occur within regular school operating hours and would not alter start and dismissal times on campus. The proposed project would not introduce any new games or events at the fields or on-campus. Freshman and JV football games would continue to be played at SOHS while major spectator events, such as varsity football games, will continue to occur at Buena Park, Fullerton Union, and La Habra High Schools.

With the removal of two classrooms, the proposed project would result in a decrease in campus enrollment capacity by 54 students for a new enrollment capacity of 2,619 students.

2.3.2 Project Construction

Construction of the proposed project is anticipated to occur in one phase and is anticipated to start in March 2027 and end in July 2027.

Additionally, the proposed project would comply with the City's noise standards and regulations, found in Chapter 9.32 of the City's Municipal Code, which states that noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from City noise standards, provided the activities do not take place between the hours of 8:00 pm and 7:00 am on weekdays, including Saturday, or at any time on Sunday or a federal holiday.

2.4 REQUIRED PERMITS AND APPROVALS

The District is the lead agency under CEQA and is carrying out the proposed project. The District Board of Trustees (Board) must approve the proposed project and adopt the IS/MND and Mitigation Monitoring and Reporting Program (MMRP). The Board will consider the information in the IS/MND when making its decision to approve or deny the proposed project, or in directing modifications to the proposed project in response to the IS/MND's findings and

mitigation measures. The IS/MND is intended to disclose to the public the proposed project's details, analyses of the proposed project's potential environment impacts, and identification of feasible mitigation that would lessen or reduce significant impacts to less-than-significant levels.

The District has approval authority over the proposed project. The proposed project would also require approval and/or coordination from the Division of State Architects and other responsible agencies listed in Table 1, *Discretionary Approvals and Permits*.

Table 1 Discretionary Approvals and Permits

Lead Agency	Action
Fullerton Union High School District	▪ Approve the proposed project ▪ Adopt the Initial Study/Mitigated Negative Declaration ▪ Adopt the Mitigation Monitoring and Reporting Program
Responsible Agencies	**Action**
Department of General Services, Division of State Architect	▪ Approval of construction drawings
California Department of Education, School Facilities Planning Division	▪ Approval of school site layout ▪ Verify compliance with educational facility design standards and siting criteria
Santa Ana Regional Water Quality Control Board	▪ Review of Notice of Intent to obtain permit coverage ▪ Issuance of general permit for discharges of stormwater associated with construction activity ▪ Review of Storm Water Pollution Prevention Plan

3. ENVIRONMENTAL EVALUATION

This section includes a checklist for each environmental topic, evaluates the significance criteria in the checklists, and, if necessary, provides mitigation measures to reduce potential impacts.

I. Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project have a substantial adverse effect on a scenic vista?***

The La Habra General Plan and General Plan EIR describe La Habra's unique scenic character, including the La Habra Basin, West Coyote Hills, Puente Hills, and the San Gabriel Mountains, as

well as by open-space views along La Mirada Creek, Coyote Creek, and the Imperial Channel. The city also values its man-made aesthetic resources, such as historic structures like the La Habra Children's Museum, Depot Theatre, Art Building, Veteran's Hall, and the La Habra History Museum building, which contribute to its cultural heritage (La Habra 2014, 2024).

The visual character of La Habra is shaped by a mix of urban development and natural topography. Views of distant hills or significant ridgelines are not a dominant visual resource from the project site due to intervening development and vegetation (see Figures 4 and 5). The project site is in a fully developed high school campus and is surrounded by a mix of residential, commercial, and light industrial land uses. The existing visual character of the immediate area is defined by school buildings, athletic facilities, and mature campus landscaping. The campus is not visible from the West Coyote Hills nature preserve or public rights-of-ways. Thus, the proposed project would not obstruct or have a substantial adverse effect on a scenic vista.

The proposed project would modernize existing building 400 within its current footprint, construct a new single-story restroom/storage building at the track and field, and install lighting poles. The height of the new restroom building and building 400 would be consistent with the scale and massing of existing single-story structures on campus. The proposed project would also install 24 field light poles from 50 to 80 feet in height around the baseball, softball, track, and auxiliary fields. While these poles would be new vertical elements, their siting is internal to the campus and their scale is consistent with athletic field lighting typical of high school facilities. The project would include new perimeter landscaping, fencing, and a bioretention area, which would integrate the improvements into the campus setting. Therefore, the proposed project would be consistent with the existing visual character of the campus and the surrounding area.

Therefore, public right-of-way views, including long-range views toward the hillsides, would largely remain in their existing condition, and the project would not substantially block views of ridgelines or hillsides. The proposed project would not have a substantial effect on scenic resources or vistas. Impacts would be **less than significant**.

b) ***Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

The nearest officially designated state scenic highway is a section of State Route 91 (SR-91) near Anaheim Hills, approximately 8.2 miles southeast of the project site (Caltrans 2026). The nearest eligible state scenic highway to the project site is a section of SR-57 approximately 2.6 miles east of the project site. Due to the distance, topography, and intervening development, the project site is not visible from SR-91 or SR-57. Therefore, the proposed project would not damage scenic resources within a state scenic highway, and **no impact** would occur.

c) ***Would the proposed project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views***

are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

As defined by Public Resources Code Section 21071, for an incorporated city, an "urbanized area" is a city that either by itself or in combination with two contiguous incorporated cities has a population of at least 100,000 persons. La Habra has an estimated population of 61,391 people (US Census 2024). However, the city is contiguous with the cities of Fullerton, Whittier, La Habra Heights, Brea, and La Mirada, which combine to have a population of over 100,000 persons. Therefore, the project site is in an urbanized area.

The campus and project site have a General Plan Land Use designation of Public Facilities and a zoning designation of Civic Utility. The proposed project would not alter the site's underlying land use and zoning designations; would not conflict with any applicable land use plans, policies, or regulations of the City of La Habra; and would adhere to the architectural and safety design guidelines of the Division of the State Architect (DSA). Therefore, the proposed project would not conflict with applicable zoning or regulations and is consistent with the planned use of the site. No impact would occur.

As discussed above, the project area is an urbanized area. The proposed project would not alter or change the fundamental character of the campus, as the modernized building 400 and new restroom structure would be consistent with the scale, design, and function of existing educational facilities. As discussed in Section I(a), the proposed project would not degrade or damage scenic vistas, as the site is not located within or visible from a designated scenic corridor or vista point, and no such resources are visible from the public rights-of-way surrounding the campus (see Figures 4 and 5). The proposed improvements would be constructed entirely within the boundaries of the existing campus.

The field lighting poles, ranging from 50 to 80 feet in height, would be new vertical elements potentially visible from adjacent public streets and residential areas to the north and west. However, the visibility of these poles would be moderated by existing campus buildings, perimeter landscaping, and the built character of the surrounding neighborhood. As detailed in the project's lighting plans (Figures 7 and 8), the design will utilize full-cutoff fixtures and shielding to minimize light spill and glare. Their installation is consistent with the athletic facility use of the site and typical of high school campuses, and would not substantially degrade the existing visual quality or views of the area from publicly accessible vantage points. Therefore, impacts would be **less than significant**.

d) ***Would the proposed project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

The foot-candle (fc) is a unit based on English measurements. Although foot-candles are considered obsolete in some scientific circles, they are nevertheless used because many existing light meters are calibrated in foot-candles. A full moon produces approximately 0.01 fc, and

direct sunlight can produce up to 10,000 fc. General light levels are shown in Table 2, *General Light Levels*.

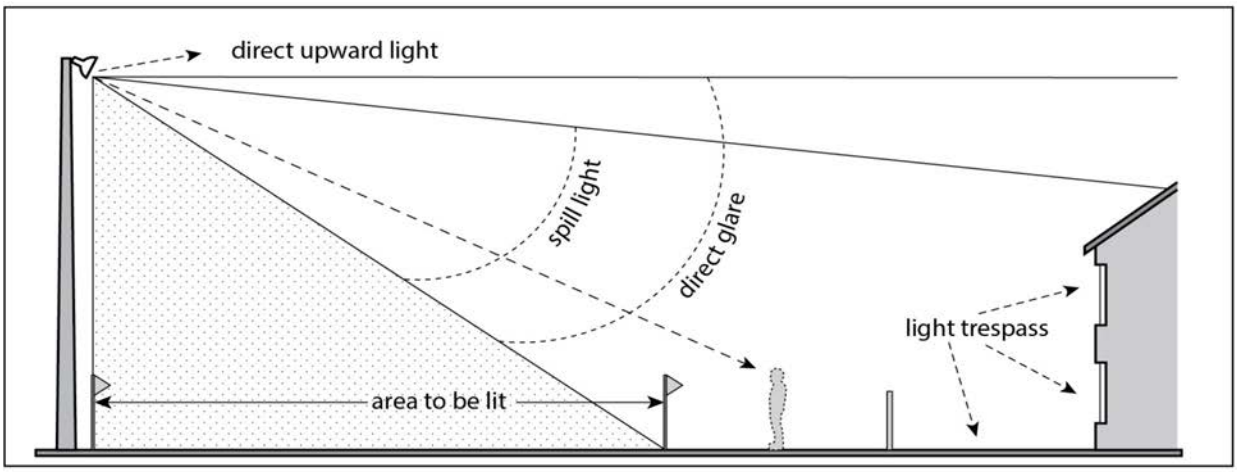
Table 2 General Light Levels

Outdoor Light	Foot-Candles
Direct Sunlight	10,000
Full Daylight	1,000
Overcast Day	100
Dusk	10
Twilight	1
Deep Twilight	0.1
Full Moon	0.01
Quarter Moon	0.001
Moonless Night	0.0001
Overcast Night	0.00001

Source: HSI 2019.

- **Horizontal foot-candle.** The amount of light received on a horizontal surface such as a roadway or parking lot pavement.
- **Vertical foot-candle.** The amount of light received on a vertical surface such as a billboard or building façade.
- **Glare** means lighting entering the eye directly from a light fixture or indirectly from reflective surfaces that causes visual discomfort or reduced visibility. Glare can be generated by building-exterior materials, surface-paving materials, vehicles traveling or parked on roads and driveways, and sports lights. Any highly reflective façade material is a concern because buildings can reflect bright sunrays. The concepts of spill light, direct glare, and light trespass are illustrated in Exhibit A, Spill Light, Direct Glare, and Light Trespass, adapted from the Institution of Lighting Engineers (ILE 2003).
- **Direct glare** is caused by looking at an unshielded lamp or a light at maximum candlepower. Direct glare is dependent on the brightness of the light source, the contrast in brightness between the light source and the surrounding environment, the size of the light source, and its position.

Exhibit A: Spill Light, Direct Glare, and Light Trespass



- **Illuminance** is the amount of light on a surface or plane, typically expressed in a horizontal plane (e.g., on the ground) or in a vertical plane (e.g., on the side of a building).
- **Lumen** means the unit of measure used to quantify the amount of visible light produced by a light source or emitted from a luminaire (as distinct from "watt," a measure of power consumption).
- **Luminaire** means outdoor electrically powered illuminating devices that include a light source, outdoor reflective or refractive surfaces, lenses, electrical connectors and components, and all parts used to mount the assembly, distribute the light, and/or protect the light source, whether permanently installed or portable. An important component of luminaires is their shielding:
  - **Fully shielded.** A luminaire emitting no light above the horizontal plane.
  - **Shielded.** A luminaire emitting less than 2 percent of its light above the horizontal plane.
  - **Partly shielded.** A luminaire emitting less than 10 percent of its light above the horizontal plane.
  - **Unshielded.** A luminaire that may emit light in any direction.
- **Light trespass** means light that falls beyond the property on which it originates. The amount of trespass is expressed in foot-candles and is measured in the vertical plane at five feet above grade at the property line of the site on which the light(s) is located. If the adjacent property is a street, alley, or sidewalk, the point at which trespassing light is measured is the center of the street, alley, sidewalk, or right-of-way. Field measurements to determine light trespass compliance do not include the effect of light produced by streetlights.
- **Sky Glow** is light that reflects into the night sky and reduces visibility of the sky and stars. It is a concern in many jurisdictions, especially those with observatories.

- **Spill light** is caused by misdirected light that illuminates areas outside the area intended to be lit. Spill light can contribute to light pollution.

Regulatory Setting and Industry Standard

General Plan

Policy SM1.7, Night Sky Lighting, permits the reasonable use of outdoor lighting for nighttime safety, utility, security, and enjoyment; minimize glare caused by limiting excessive or unnecessary outdoor lighting; conserve energy and resources; and protect the natural environment from the damaging effects of night lighting. Though the City's general plan includes a policy about night sky lighting, it does not establish a threshold.

Municipal Code

The City of La Habra does not establish a significance threshold for light spill for outdoor lighting near residential areas or for recreational areas. La Habra Municipal Code Section 15.60.100, Multifamily dwelling lighting, requires aisles, passageways and recesses related to and within a building complex to be illuminated with an intensity of at least 0.25 fc at the ground level during the hours of darkness and establishes a minimum 1.0 fc of light on parking surfaces during the hours of darkness. Additionally, Section 15.60.220 requires that all exterior commercial doors, during the hours of darkness, be illuminated with a minimum of 1 fc and that open parking lots with more than 10 spaces and their access, provide a maintained minimum of 1 fc of light.

It is assumed that the proposed project would include typical light and glare control practices, such as lights needing to be directed, controlled, screened or shaded as not to shine directly on surrounding properties; lighting needing to be controlled to prevent glare; and prohibiting the use of unshaded clear bulbs in exterior lighting. These are typical light control practices, and it is assumed that the proposed project's lighting would be directed, controlled, screened, or shaded so as not to shine directly on surrounding properties.

Industry Standard

The International Commission on Illumination (CIE) Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations (2nd edition) provides quantitative metrics to analyze the impact of light and glare (CIE 2017). The Guide identifies lighting thresholds based on five environmental lighting zones (E0, intrinsically dark, to E4, high district brightness). Environmental Lighting Zone E3, medium district brightness (such as well inhabited rural and urban settlements) would be most applicable to the proposed project's urban context. Environmental Lighting Zone E3 establishes the following lighting thresholds:

- Pre-Curfew Mixed-Use/Suburban = 0.9 foot-candle
- Post-Curfew Mixed-Use/Suburban = 0.2 foot-candle

The Illuminating Engineering Society (IES) and the International Dark-Sky Association (IDA)'s Model Lighting Ordinance (MLO) provides guidance for communities to develop effective lighting control ordinances (IES 2011). The MLO provides the following light spill thresholds:

- Rural/Low Density = 0.1 foot-candle
- Mixed-use/Suburban Density = 0.3 foot-candle
- City/Urban = 0.8 foot-candle

Establishing an Appropriate Threshold

Since the City does not identify a light spill threshold, industry standards were used to establish an appropriate light spill threshold. Of the two industry standards identified above, the CIE's 0.9 fc pre-curfew threshold for Environmental Lighting Zone E3 most closely matches the urban context of the proposed project. In addition, this threshold was selected because it includes both pre- and post-curfew standards that consider the time of day at which lighting impacts would occur, which is an important consideration for lighting associated with the proposed project.

Curfew hours are defined by municipal code Section 9.28, Nighttime Curfew for Minors, which sets a curfew of 10:00 pm to 6:00 am any day of the week. Since the proposed project's operations would end at 9:00 pm, the following discussion evaluates the potential for 0.9 fc; any residential/suburban property receiving a 0.9 fc or greater level of spill light would be considered impacted.

Sensitive Receptors

Certain land uses are particularly sensitive to light and glare. The La Habra General Plan and Municipal Code do not specify land uses sensitive to light and glare. Sensitive receptors for lighting are typically existing uses that could be negatively affected by excessive nighttime illumination, such as residences, residential care facilities, schools, hotels, and motels. Sensitive receptors for glare are motorists/drivers, residences, residential care facilities, schools, hotels, and motels.

The proposed project is on the SOHS campus, which is surrounded by residential uses to the north; residential and commercial uses to the west; light manufacturing to the south; and residential (mobile home park) and light manufacturing uses to the east (see Figure 2). The closest light-sensitive receptors to the project site are the single-family residences bordering the campus to the north and west. The residential property lines to the north are approximately 40 feet from the closest proposed light poles along the northern perimeter of the track and field. The residential property lines to the west are approximately 25 feet from the closest proposed light poles at the varsity softball field (see Figure 7 and Figure 8).

Field Lighting and Spill Light

The proposed lighting poles are set back from the campus perimeter. The closest light poles to sensitive receptors are those along the northern and western boundaries of the project site. The closest poles along the northern boundary with the residential property lines are F1 and F2 (80 feet), and the closest pole along the western boundaries adjacent to residential property lines is A4 (60 feet).

As discussed in the project description, the proposed project would add evening practices for four sports/activities, concluding by 9:00 pm. Figure 7 and Figure 8 show that the proposed sports field lighting system would create a maximum horizontal light spill of 0.6 fc and a maximum vertical light spill of 0.7 fc, which are below the 0.9 fc threshold. Once practices, games, and events conclude, field lights would be lowered after the conclusion of the events to allow for safe exit and cleanup until curfew hours, keeping light levels below the 0.2 fc post-curfew CIE threshold. The maximum hours of operation of the proposed field lights would not encroach on the 10:00 pm to 6:00 am curfew hours in La Habra. The proposed project would comply with the City's curfew and would be below the CIE threshold pre- and post-curfew. Therefore, the proposed project is anticipated to result in a **less than significant impact**.

Glare

As discussed in the project description, the proposed project would add evening practices for sports/activities until 9:00 pm. The proposed modernization of building 400 and construction of the new restroom building would not introduce major new reflective surfaces, and materials would be consistent with the existing campus character. Existing campus buildings, perimeter landscaping, and fencing would help screen potential glare sources.

Since the proposed project would not increase the number of participants or spectators for games or events, or increase student enrollment, vehicle headlights associated with campus use would remain similar to existing conditions and would not constitute a new substantial source of nighttime glare. Additionally, the LED luminaires would be shielded and directed downward and away from the adjacent sensitive uses. SOHS sporting events would adhere to the District's 9:00 pm lighting restriction, with field lights being lowered after the conclusion of the events to allow for safe exit and cleanup until curfew hours. Additionally, the field lights would include an automated shut-off timer, and the District would not create glare impacts into curfew hours (10:00 pm to 6:00 am). Therefore, impacts associated with glare would be **less than significant**.

II. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest

resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

DISCUSSION

a) ***Would the proposed project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

The California Important Farmland Finder is produced by the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the California Government Code. According to the FMMP, agricultural land is rated according to soil quality and irrigation status and is divided into five categories: Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Unique Farmland, and Grazing Land. The best quality land is Prime Farmland (DOC 2026a). Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique Farmland is farmland of lesser quality soils used for the production of the state's leading agricultural crops.

According to the California Important Farmland Finder, the project site is designated as Urban and Built-Up Land and is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Urban Built-Up Land is defined as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel (DOC 2026a). As such, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Additionally, the proposed project would be developed on the existing SOHS campus which is exclusively surrounded by non-agriculture uses. Therefore, **no impact** would occur.

b) ***Would the proposed project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

The project site has a General Plan land use designation of Public Facilities and is zoned Civic Utility, which does not allow for agricultural uses (La Habra 2024a, 2024b). Since the proposed project is not designated or zoned for agricultural uses, the proposed project would not conflict with existing zoning for agricultural use.

Williamson Act contracts restrict the use of privately owned land to agriculture and compatible open-space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. The project site is a publicly owned, developed school campus within the incorporated City of La Habra. There is no land contracted under the Williamson Act for agricultural use on-site or within the immediate vicinity of the site (DOC 2026b). Therefore, the project would not conflict with an existing Williamson Act contract and **no impact** would occur.

c) ***Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by***

Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The project site is a developed urban high school campus with a General Plan land use designation of Public Facilities and is zoned Civic Utility. No forested land nor timberland exists onsite. Further, the proposed project site is not zoned for forest land or timberland. Therefore, development of the proposed project would not conflict with existing zoning for forestland or timberland. **No impact** would occur.

d) ***Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?***

The project site is located on the campus of an existing high school within an urbanized area, and no forest land uses are present onsite nor in the immediate vicinity. Development of the proposed project would not require any changes to the existing environment that could result in the conversion of forest land to non-forest use. Therefore, **no impact** would occur.

e) ***Would the proposed project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

As shown in Figure 3, the project site is not adjacent to agricultural uses and is located on the campus of an existing high school within an urbanized area. Development of the proposed project would not result in any changes to the existing environment that could result in the conversion of farmland to nonagricultural uses or forest land to non-forest use. Therefore, **no impact** would occur.

III. Air Quality

The Air Quality section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the project site, and air quality modeling can be found in Appendix A.

The primary air pollutants of concern for which ambient air quality standards (AAQS) have been established are ozone (O_3), carbon monoxide (CO), coarse inhalable particulate matter (PM10), fine inhalable particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb). Areas are classified under the federal and California Clean Air Act as either in attainment or nonattainment for each criteria pollutant based on whether the AAQS have been achieved. The South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (South Coast AQMD), is designated nonattainment for O_3, and $PM_{2.5}$ under

the California and National AAQS, nonattainment for PM_{10} under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2026).

Furthermore, the South Coast AQMD has identified regional thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including VOC, CO, NO_X, SO_X, PM_{10}, and $PM_{2.5}$. Development projects below the regional significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

DISCUSSION

a) *Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?*

The South Coast AQMD adopted the 2022 Air Quality Management Plan (AQMP) on December 2, 2022. Regional growth projections are used by South Coast AQMD to forecast future emission levels in the SoCAB. For southern California, these regional growth projections are provided by the Southern California Association of Governments (SCAG) and are partially based on land use designations included in city/county general plans. Typically, only large, regionally significant

projects have the potential to affect the regional growth projections. In addition, the consistency analysis is generally only required in connection with the adoption of General Plans, specific plans, and significant projects.

Changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in South Coast AQMD's AQMP. These demographic trends are incorporated into SCAG's 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Connect SoCal, to determine priority transportation projects and vehicle miles traveled (VMT) in the SCAG region. As discussed in Section XIV, *Population and Housing*, the proposed project would result in a decrease in student enrollment at the school and the proposed improvements would continue to serve existing students in the District's service boundary. Construction activities associated with the proposed project could result in temporary construction worker relocation; however, this would end upon project completion.

Additionally, as demonstrated in Section III (b), the regional emissions that would be generated by the operational phases of the proposed project would be less than the South Coast AQMD emissions thresholds and would therefore not be considered by South Coast AQMD to be a substantial source of air pollutant emissions that would have the potential to affect the attainment designations in the SoCAB. Therefore, the proposed project would not affect the regional emissions inventory or conflict with strategies in the 2022 AQMP. Impacts would be **less than significant** and no mitigation measures are necessary.

b) ***Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?***

The following describes project-related impacts from regional short-term construction activities and regional long-term operation of the proposed project.

Regional Short-Term Construction Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be 1) exhaust from off-road diesel-powered construction equipment; 2) dust generated by construction activities; 3) exhaust from on-road vehicles; and 4) off-gassing of volatile organic compounds (VOCs) from paints.

Construction would occur between March 2027 and July 2027. Air pollutant emissions from construction activities on-site would vary daily as construction activity levels change. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1, and are based on the preliminary construction durations provided by the District. Where specific information regarding project-related construction activities was

not available, CalEEMod default information were used. For the purposes of this model, construction activities are assumed to occur August 3rd through December 31st, 2026.

As shown in Table 3, *Maximum Daily Regional Construction Emissions*, maximum daily emissions for VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ from construction-related activities would be less than their respective South Coast AQMD regional significance threshold values. Projects that do not exceed the South Coast AQMD regional significance thresholds would not result in an incremental increase in health impacts in the SoCAB from project-related increases in criteria air pollutants. Therefore, air quality impacts from project-related construction activities would be **less than significant** and no mitigation measures are necessary.

Table 3 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (lbs./day)[1, 2]					
	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	2	21	20	<1	2	1
Site Preparation	3	30	30	<1	10	5
Grading	2	16	19	<1	5	2
Building Construction	1	10	13	<1	<1	<1
Paving	1	7	11	<1	1	<1
Architectural Coating	19	1	1	<1	<1	<1
Building Construction, Paving, and Architectural Coating	21	18	25	<1	1	1
Maximum Daily Construction Emissions	**21**	**30**	**30**	**<1**	**10**	**5**
South Coast AQMD Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix A. Based on CalEEMod Version 2022.1. South Coast AQMD 2023.

Notes: Highest winter or summer emissions are reported.

1 Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 25 miles per hour on unpaved surfaces, and street sweeping with Rule 1186–compliant sweepers.

2 Based on the preliminary information provided by the District. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

Long-Term Operation-Related Air Quality Impact

Typical long-term air pollutant emissions are generated by area sources (e.g., landscape fuel use, aerosols, architectural coatings, and asphalt pavement), energy use (natural gas), and mobile sources (i.e., on-road vehicles). The proposed project would not generate any new

mobile source emissions or require natural gas. The proposed project would result in a decrease in school capacity at the campus and no new activities generating new trips would result from the field improvements. The proposed field building would generate a negligible increase in area source emissions. Therefore, operational emissions would not exceed the South Coast AQMD regional operational emissions thresholds. Impacts to regional air quality associated with operation of the proposed project would be **less than significant**.

c) ***Would the proposed project expose sensitive receptors to substantial pollutant concentrations?***

The proposed project could expose sensitive receptors to elevated pollutant concentrations if it causes or significantly contributes to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Localized Construction Impacts

Construction LSTs

South Coast AQMD has developed localized significance thresholds (LSTs) which are based on the California AAQS, the most stringent AAQS, to provide a margin of safety in the protection of public health and welfare. They are designated to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. The screening-level construction LSTs are based on the size of the project site, distance to the nearest sensitive receptor, and Source Receptor Area (SRA). The nearest offsite sensitive receptors are residences adjacent to the north and west boundaries of the project site. Onsite receptors would consist of students and employees of SOHS.

Air pollutant emissions generated by construction activities would cause temporary increases in air pollutant concentrations. Table 4, *Construction Emissions Compared to Screening-Level LSTs*, shows the maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with the South Coast AQMD's screening-level LSTs for sensitive receptors within 82 feet (25 meters), the closest and most conservative distance available, for NO_X, CO, PM_{10} and $PM_{2.5}$. Air pollutant emissions generated by construction activities would cause temporary increases in air pollutant concentrations. As shown in Table 4, construction activities during the site preparation activity would generate on-site emissions that exceed the screening-level LSTs for PM_{10} and $PM_{2.5}$. Thus, project-related construction activities could have the potential to expose sensitive receptors to substantial pollutant concentrations. Localized air quality impacts from construction activities would be potentially significant.

Table 4 Construction Emissions Compared to Screening-Level LSTs

	Pollutants(lbs./day)[1]			
	NO_X	**CO**	**PM_{10}[2]**	**$PM_{2.5}$[2]**
Demolition	21	19	1	1
1.00-acre Disturbed Per Day	**103**	**522**	**4**	**3**
Exceeds Screening-Level LST?	**No**	**No**	**No**	**No**
Site Preparation	29	28	10	5
3.5-acre Disturbed Per Day	184	1,037	9	5
Exceeds Screening-Level LST?	No	No	**Yes**	**Yes**
Grading	15	17	4	2
2.5-acre Disturbed Per Day	159	854	7	4
Exceeds Screening-Level LST?	No	No	No	No
Building Construction, Paving, and Architectural Coating Overlap	18	24	1	1
1.31-acre Disturbed Per Day	117	597	5	3
Exceeds Screening-Level LST?	No	No	No	No

Source: CalEEMod Version 2022.1 and South Coast AQMD 2008 and 2011.

Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the project area are included in the analysis.

1 Based on information provided or verified by the District. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

2 Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 25 miles per hour on unpaved surfaces, and street sweeping with Rule 1186–compliant sweepers.

3 Screening-level LSTs are based on sensitive receptors within 82 feet (25 meters) for NOX, CO, PM10 and PM2.5 in SRA 16.

Construction activities associated with the proposed project could expose sensitive receptors to elevated concentrations of PM_{10} and $PM_{2.5}$. Mitigation Measure AIR-1 would require watering of disturbed areas during the field improvement activities beyond what is required with under South Coast AQMD Rule 403. As shown in Table 5, *Site Preparation Emissions with Mitigation Compared to Screening-Level LSTs*, fugitive dust emissions during site preparation activities associated with the field improvements construction with the enhanced water regime would be **less than significant with mitigation incorporated**.

> **Mitigation Measure AIR-1**: The Fullerton Joint Union High School District (District) shall require that construction bids for the proposed project include a requirement that

construction contractors are required to water disturbed areas a minimum of three times per day to reduce fugitive dust. This measure shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to Division of the State Architect (DSA). The District shall verify that construction contractors adhere to South Coast Air Quality Management District Rule 403 and implement this enhanced fugitive dust control requirement during grading and other ground disturbing activities.

Table 5 Site Preparation Emissions with Mitigation Compared to Screening-Level LSTs

	Pollutants(lbs./day)[1]			
	NO_X	CO	PM_{10}[2]	$PM_{2.5}$[2]
Site Preparation	29	29	7	4
3.5-acre Disturbed Per Day	**184**	**1,037**	**9**	**5**
Exceeds Screening-Level LST?	**No**	**No**	**No**	**No**

Source: CalEEMod Version 2022.1 and South Coast AQMD 2008a and 2011.

Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the project area are included in the analysis.

[1] Based on information provided or verified by the District. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including reducing speed limit to 25 miles per hour on unpaved surfaces and street sweeping with Rule 1186–compliant sweepers, in addition to Mitigation Measure AIR-1 which requires watering disturbed areas a minimum of three times per day.

[3] Screening-level LSTs are based on sensitive receptors within 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$ in SRA 16.

Construction Health Risk

The proposed project would elevate concentrations of TACs (i.e., diesel particulate matter [DPM]) in the vicinity of sensitive land uses during temporary construction activities that would use offroad equipment operating on-site, and at different levels depending on the type of activity. The maximally exposed receptors for each type were identified as the following:

- **Residential Receptor**: Single-family residence on West Skywood Street, adjacent to the project site's northern boundary.
- **High School Receptor**: Sonora High School student receptors at the tennis courts near the northern edge of campus.
- **Worker Receptor**: Worker receptors adjacent to the project site's southern boundary.

A site-specific construction health risk assessment (HRA) of TACs was prepared to quantify potential health risk emissions during construction (see Appendix AQ/GHG). The results of the analysis are shown in Table 6, *Construction Risk Summary,* and demonstrate that construction activities associated with the proposed project would not exceed the South Coast AQMD thresholds at any of the locations of the maximum exposed receptors in the project area.

Table 6 Construction Risk Summary

Receptor[1]	Cancer Risk (per million)	Chronic Hazards
Off-Site Residential MER	<0.01	<0.1
Off-Site Worker MER	<0.01	<0.1
On-Site High School MER	<0.01	<0.1
South Coast AQMD Threshold	**10**	**1.0**
Exceeds Threshold?	**No**	**No**

Source: Appendix A. Prepared in accordance with guidance from the Office of Environmental Health and Hazard Assessment (2015).

Notes: MER = Maximally Exposed Receptor

[1] Each MER receptor type was based on overall MER location, representing the point of maximum exposure from all source group areas, and was used for the AERMOD results and HRA.

As shown in Table 6, construction-related activities associated with the proposed project would not result in an exceedance of the South Coast AQMD health risk thresholds. Therefore, the proposed project would not expose nearby receptors to substantial concentrations of air pollutant emissions during construction. This impact would be **less than significant**.

Localized Operational Impacts

Operation LSTs

Because the installation and use of stationary source equipment is not proposed as part of the project, operation of the proposed project would not generate substantial emissions from onsite stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions include industrial land uses, such as chemical processing and warehousing operations where truck idling would occur onsite and would require a permit from South Coast AQMD. The proposed project would construct improvements at the SOHS athletic facilities, which do not fall within this category of uses. Localized air quality impacts related to operation-related emissions would be **less than significant**.

Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. The SoCAB has been designated in attainment under both the national and California AAQS for CO. The proposed project would not result in an increase of trips to the project site and would therefore have no impact on CO Hotspots. Impacts would be **less than significant**.

d) ***Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

The proposed project would not result in objectionable odors. The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities.

The improvements associated with the proposed project would not fall within the aforementioned land uses and no operational odors are anticipated. Emissions from construction equipment, such as diesel exhaust and from VOCs associated with architectural coatings and paving activities, may generate odors. However, these odors would be temporary, intermittent, and are not expected to affect a substantial number of people. In addition, land uses accommodated under the proposed project would be subject to South Coast AQMD Rule 402, which would contribute to minimizing odor-related nuisances. Therefore, odor impacts would be **less than significant**.

IV. Biological Resources

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Special status species include those listed as endangered or threatened under the federal Endangered Species Act or California Endangered Species Act; species otherwise given certain designations by the California Department of Fish and Wildlife; and plant species listed as rare by the California Native Plant Society.

The project site has been previously disturbed by the development of the existing SOHS campus. According to the La Habra General Plan, La Habra is largely urbanized with few remaining natural open spaces, its landscapes primarily consist of nonnative ornamental species that have been planted around commercial, residential, and industrial buildings, in parking lots, along streets, and in the open space areas of the city's parks and schools. Various tree species provide suitable nesting and roosting habitat for resident and migratory bird species. Wildlife in La Habra is limited to species that are adapted to highly urbanized areas such as birds and small mammal species including raccoons, skunks, opossum, ground squirrels, and small rodents. Few areas of the city support sensitive biological resources and are primarily mitigation areas of protected plant species within the Westridge Golf Course (La Habra 2024). Additionally, the project site is approximately 2.1 miles northeast of the Westridge Golf Course.

The Central and Coastal Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) and its associated implementation agreement cover 13 cities in Orange County, including La Habra. Adopted in 1996, the plan established a multi-species, multi-habitat reserve system and long-term management program focused on protecting coastal sage scrub and the species that depend on it, including the coastal California gnatcatcher, cactus wren, and orange-throated whiptail. According to the City's Final Environmental Impact Report, because the City participates in funding and implementing the NCCP/HCP, all City-owned properties are covered as participating landowner lands, and private property owners are classified as nonparticipating landowners (such as the District) but are still required to comply with the plan's regulatory requirements. Although the City of La Habra participates in the Central and Coastal Orange County NCCP/HCP, it is not within the plan's protected subregional focus areas. The Central and Coastal Subregion covers about 325 square miles in central Orange County, and the closest protected subarea—near the SR-55/SR-91 interchange—is approximately 8.1 miles southeast of the project site (La Habra 2014).

Additionally, the project site is not located in any critical habitat. The closest critical habitat for threatened and endangered species is approximately 2 miles northeast of the project site (USFWS 2025a). Based on the BIOS6 mapper the project site is not within an Orange County reserve, or habitat core area (CDFW 2025). The project site is already disturbed, developed and

surrounded by urban development; the proposed project would not impact any candidate, sensitive, or special status species. A **less than significant** impact would occur.

b) ***Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; that are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. Although the project site is within the Central and Coastal Orange County NNCCP/HCP, the project site is not located within the plan's protected subregional focus areas (La Habra 2014). No federally designated critical habitat exists on site or in the vicinity of the project site (USFWS 2025a). As discussed in Section IV(a), La Habra is largely urbanized with few remaining natural open spaces, and the project site is not within any habitat conservation area or open natural spaces (La Habra 2014). The National Wetlands Mapper maintained by the US Fish and Wildlife service did not identify any wetlands on the project site (USFWS 2025b). The project site does not contain any riparian habitat or wetlands onsite. Therefore, a **less than significant** impact would occur.

c) ***Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

The project site is developed with the existing SOHS and includes athletic fields, classroom building 400, and animal grazing area. As discussed in Section IV(b), the National Wetlands Mapper did not identify any wetlands on the project site (USFWS 2025b). All construction related activities would occur within the boundaries of the project site. Therefore, the proposed project would not have a substantial adverse effect on protected wetlands, and impacts would be **less than significant**.

d) ***Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

According to the California Terrestrial Habitat Connectivity map, the project site is located within an area of Limited connectivity opportunity for wildlife (CDFW 2019). Additionally, no federally designated critical habitat exists on the project site or in the vicinity of the project site (USFWS 2026a). The project site is in an urbanized area within the City of La Habra and is surrounded by residential, commercial, and light industrial uses. The project site is developed with the existing SOHS athletic fields, classroom building 400, and animal grazing area.

Migratory birds may be present on-site; due to the removal of four trees on the project site, implementation of Mitigation Measure BIO-1 (MM BIO-1) would be required. MM BIO-1 states that in order to minimize impacts, vegetation clearing or ground-disturbing activities should be conducted during the nonbreeding season (September 1 to February 14) to limit impacts to nesting birds. If vegetation clearing or ground-disturbing activities need to take place during breeding season (February 15 through August 31), a preconstruction nesting bird survey(s) will be required to remain in compliance with the Migratory Bird Treaty Act (MBTA). The last survey should be conducted no more than three days prior to the start of work. Compliance with the MBTA, CDFW regulations, and implementation of Mitigation Measure BIO-1 (MM BIO-1) would ensure that impacts associated with the implementation of the proposed project are **less than significant with mitigation incorporated** to nesting and migratory birds.

> **Mitigation Measure BIO-1:** Preconstruction Avian Survey. To the extent feasible, in order to minimize potential impacts to avian species, vegetation clearing or ground-disturbing activities should be conducted during the non-breeding season (September 1 to February 14) to limit impacts to nesting birds. If vegetation clearing or ground-disturbing activities need to take place during breeding season (February 15 through August 31), a pre-construction avian survey(s) will be required. The last survey should be conducted a minimum of three days prior to the start of work. The District shall hire a qualified biologist to prepare the preconstruction avian survey.
>
> If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of vegetation or ground disturbing activities, an adequate protective buffer zone shall be established by a qualified biologist to protect the nesting site. The distance shall be determined by a qualified biologist based on the site conditions (e.g., topography, if the nest is in a line of sight of the construction, and the sensitivity of the birds nesting). Additional protective measures shall include establishment of clearly delineated exclusion zones (i.e., demarcated by identifiable fencing, such as orange construction fencing or equivalent) around each nest location as determined by a qualified biologist, taking into account the species of birds nesting, their tolerance for disturbance, and proximity to existing development. The nest site(s) shall be monitored by a qualified biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).

e) ***Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

As stated in Section 2.3, *Project Characteristics*, the proposed project would remove four trees on the project site. The City's Municipal Code does not include a tree preservation ordinance or tree removal permit requirement applicable to private development sites but only to City-

owned trees (La Habra 2025). The City's General Plan includes Policy BR 1.7 related to management of publicly owned parkway and median trees, which does not apply to the project site, and Policy BR 1.8, which encourages—but does not require—preservation of trees suitable for nesting and roosting habitat (La Habra 2024). Though the proposed project would remove four trees that could be suitable nesting and roosting habitat for migratory birds, the project would implement MM BIO-1 to reduce impacts to migratory birds. Therefore, the project would not conflict with local policies or ordinances protecting biological resources, and impacts would be **less than significant**.

f) ***Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

As stated in Section IV(a), the project site is located within the Central and Coastal Orange County NCCP/HCP. However, the project site is not located within the plan's protected subregional focus areas and is not located within any other HCP/NCCP or other approved local, regional, or state habitat conservation plan. Therefore, impacts would be **less than significant**.

V. Cultural Resources

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?***

Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered "historically significant" if it meets one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values;

4. Has yielded, or may be likely to yield, information important in prehistory or history.

CRM TECH prepared a cultural evaluation report evaluating the campus and proposed project for eligibility for listing in the California Register of Historical Resources (CRHR) and as historical resources under CEQA, following established guidelines (see Appendix B). CRM TECH conducted a historical/archaeological records search, pursued historical background research, consulted with local community representatives, and carried out a field inspection of the campus (Appendix B).

SOHS was opened in 1966 as the seventh high school in the district. SOHS was built to serve the rapidly growing student population during the post-World War II suburban expansion, a major historic development pattern in Southern California. However, as one of many similar schools constructed during that period, it is not uniquely associated with that trend and is not linked to any specifically recognized historic events.

No historic figures of recognized significance have been identified in close association with SOHS and SOHS is unlikely to yield information important to the study of the pertinent aspects of national, state, or local history, such as the accelerated growth of public education in the age of suburban expansion and population boom, which is well-documented in published literature, contemporary sources, and archival records.

The SOHS campus was designed by architect Willian Blurock who is well recognized today for his achievements in the field of architecture. The campus architecture demonstrates the basic

characteristics of Mid-century Modernism, a style that was common in California during the postwar decades, but it does not stand out as an important example of the Modernist movement in architecture or of any property type, period, region, or method of construction. Nor does it exhibit a particularly high level of artistic value or any other distinctive merits to distinguish it from the numerous similar school campuses of similar age throughout southern California.

As stated above, the designer of the 1966 main building, architect William E. Blurock, is well recognized for his achievements in architecture, including hundreds of schools and colleges in California and elsewhere, along other buildings. While Blurock undoubtedly qualifies as a master architect, SOHS, with its relatively common design for post-war educational institutions and other office buildings, has not been recognized as an important, exemplary, or especially notable example of his work.

As such, the SOHS campus was evaluated against the above criteria for listing in the California Register of Historical Resources as a part of this study and was found not to be eligible. Therefore, impacts would be **less than significant**.

b) ***Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

Implementation of the proposed project would result in limited ground disturbance to provide track and field improvements, including installation of synthetic track and field and field lighting and constructing the restroom building, landscaping and fencing, and the modernization of building 400. Implementation of the proposed project would require limited earthwork, which would include grading for proper base and slope for the restroom building, drilling holes for installation of proposed light poles, and utility trenching. The earthwork would generally be surface level since no subterranean levels are proposed. Additionally, the project site has been previously disturbed with the existing SOHS athletic fields, classroom building 400, and animal grazing area.

The Cultural Resources Compliance Report did not identify any cultural resources being recorded on the project site but recorded one cultural resource from a previous cultural study within one mile of the project site. The study that identified the single cultural resource included a suspected prehistoric (i.e., Native American) archaeological site in 1979 and subsequently designated 30-000796 (CA-ORA-796) in the California Historical Resources Inventory. However, a re-visit to the site in 1980 resulted in the conclusion that the lithic pieces and marine shells at the site were not Native American artifacts (Appendix B).

The La Habra General Plan does not identify any archeological resources in the City. However, the City's General Plan EIR identified the West Coyote Hills area as including an identified archeological site. The proposed project is located on the SOHS campus which is approximately

2 miles northeast of the West Coyote Hills area and would not impact any archeological resources in that area.

Although there are no known archaeological resources within the project site, unknown archaeological cultural materials have the potential to exist. Ground-disturbing activities from the proposed project may uncover unknown archaeological resources. Implementation of Mitigation Measure CUL-1 would ensure that, in the event archaeological resources are discovered during ground-disturbing activities, they would be recovered in accordance with state and federal requirements. Additionally, as part of the Historical/Archaeological Resources Survey Report, the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was searched and yielded a positive result, which indicates that known sacred sites or tribal cultural resources (TCR) exist in the vicinity of the project site (Appendix E). Thus, the potential for unearthing TCRs exists. Implementation of Mitigation Measure CUL-1 would ensure applicable Native American tribal contact(s) are contacted in the events significant Native American cultural resources are discovered. Implementation of Mitigation Measures CUL-1 and TCR-ACH-1 through TCR-ACH-5 and TCR-KIZH-1 through TCR-KIZH-3 would reduce impacts to archaeological resources to **less than significant with mitigation incorporated**.

> **Mitigation Measure CUL-1:** Prior to initiating any ground-disturbing activities for the proposed project, the District shall ensure that an archaeologist who meets the Secretary of the Interior's standards for professional archaeology has been retained for the project and will be on-call during all grading and other significant ground-disturbing activities. The qualified archaeologist shall ensure that the following measures are followed for the project:
>
> - Prior to any ground disturbance, the qualified archaeologist shall provide worker environmental awareness protection training to construction personnel regarding regulatory requirements for the protection of cultural resources (prehistoric and historic). As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural resources be discovered during construction.
>
> - In the event that unanticipated cultural material is encountered during any phase of project construction, all construction work within 100 feet of the find shall cease and the qualified archaeologist shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be important by the qualified archaeologist, work will be permitted to continue in the area.
>
> - If a find is determined to be important by the qualified archaeologist, he or she shall immediately notify the District. The qualified archaeologist shall consult on a finding

of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the qualified archaeologist and District, through consultation as appropriate, determine that either: (1) the site is not eligible for the CRHR; or (2) the treatment measures have been completed to their satisfaction.

- If significant Native American cultural resources are discovered, the archaeologist on call shall contact the applicable Native American tribal contact(s). If requested by the Native American tribe(s), the District or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, reburial, return of artifacts to tribe).

c) *Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?*

A significant impact would occur if the proposed project would disturb previously interred human remains. Given the project site was previously disturbed, it is unlikely to support conditions conducive to the discovery of human remains. However, there is a remote possibility that human remains could be encountered during excavation and grading activities associated with the proposed project.

If human remains are encountered during ground-disturbing activities, California Health and Safety Code Section 7050.5 requires that disturbance of the site would halt and remain halted. The county coroner would investigate the circumstances, manner, and cause of any death and recommend the treatment and disposition of the human remains to the person responsible for the excavation or to his or her authorized representative, in the manner provided in Section 5097.98 of the California Public Resources Code. The coroner is required to make a determination within two working days of being notified of the discovery of the human remains. If the coroner determines that the remains are not subject to his or her authority or has reason to believe they are Native American, he or she would contact, by telephone within 24 hours, the NAHC, who will contact the "most likely descendant." The most likely descendant would receive access to the discovery and will provide recommendations or preferences for treatment of the remains within 48 hours of accessing the discovery site. Disposition of human remains and any associated grave goods, if encountered, would be treated in accordance with procedures and requirements in Sections 5097.94 and 5097.98 of the Public Resources Code; Section 7050.5 of the California Health and Safety Code; and CEQA Guidelines Section 15064.5.

While unlikely, any accidental discovery of human remains during project construction and operation would be required to comply with all applicable laws and regulations establishing the

proper handling of human remains. Compliance with these laws and regulations would ensure that proposed project would result in a **less than significant** impact.

VI. Energy

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

The following discusses the potential energy demands from short-term construction and long-term operational energy consumption associated with the proposed project.

Short-Term Construction Impacts

Electrical Energy

Electricity use during construction of the proposed project would vary during different phases of construction. Construction of the proposed project would not require electricity to power most construction equipment. Later construction phases could result in the use of electricity-powered equipment for interior construction and architectural coatings. It is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws) and lighting, which would result in minimal electricity usage during construction activities. Therefore, project-related construction activities would not result in wasteful or unnecessary electricity demands, and impacts would be **less than significant**.

Natural Gas Energy

It is not anticipated that construction equipment used for the proposed project would be powered by natural gas, and no natural gas demand is anticipated during construction. Therefore, **no impacts** would occur with respect to natural gas usage during construction.

Transportation Energy

Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles. In addition, transportation energy demand would come from the use of off-road construction equipment. It is anticipated that the majority of off-road construction equipment, such as those used during demolition, grading, building construction, and paving, would be gas or diesel powered.

The use of energy resources by vehicles and equipment would fluctuate according to the phase of construction and would be temporary. In addition, all construction equipment would cease operating upon completion of proposed project construction. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure.

Moreover, to limit wasteful and unnecessary energy consumption, the construction contractors are anticipated to minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9. Construction trips would also not result in unnecessary use of energy since the project site is centrally located in an urbanized and residential area of the city served by numerous regional freeway systems (e.g., State Routes 90) that provide the most direct routes from various areas of the region. Thus, energy use during construction of the proposed project would not be considered inefficient, wasteful, or unnecessary. Impacts would be **less than significant**.

Long-Term Impacts During Operation

Operation of the proposed filed building and field lighting would generate a nominal increase in demand for electricity on the project site. No natural gas would be used for operation of these improvements. The net increase in electricity consumption from the proposed project is shown in Table 7, *Operation-Related Electricity Consumption*.

Table 7 Operation-Related Electricity Consumption

Land Use[1]	Electricity (kWh/year)[1]
Field Building	18,857
Field Lighting[2]	83,291
Total	**102,166**

Source: Appendix A. Based on CalEEMod Version 2022.1,

Notes: kWh = kilowatt-hours

1 Based on CalEEMod defaults and a conversion of default natural gas use to electricity using a conversion rate of 3,412 British Thermal Units for one kWh.

2 Based on the durations of events that would be rescheduled in order to use the proposed field lighting and the total kW load for all field lighting, as provided in the Musco Lighting Plans.

The proposed project would be required to comply with the latest Building Energy Efficiency Standards and CALGreen standards. In addition to compliance with these energy efficiency standards, impacts associated with electricity use would decrease over time as the project's electricity provider, Southern California Edison (SCE), is required to comply with the state's renewable portfolios standard (RPS). This program mandates utilities to procure a certain proportion of electricity from eligible renewable and carbon-free sources and increasing the proportion through the coming years with an ultimate procurement requirement of 100 percent by 2045. The RPS requirements would support use of electricity by the proposed project that is generated from renewable or carbon-free sources. Overall, the proposed project would generally be consistent with the goals outlined in Appendix F of the CEQA Guidelines regarding increasing energy efficiency, decreasing reliance on fossil fuels, and increasing renewable energy sources.

The proposed project would be consistent with the requirements of these energy-related regulations, which would decrease electricity use and increase renewable electricity, and would not result in wasteful or unnecessary electricity demands. Therefore, the proposed project would have **less than significant** impacts with respect to energy consumption.

b) *Would the proposed project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

This impact analysis evaluates consistency of the proposed project with California's Renewable Portfolio Standard (RPS) Program, which is California's primary plan driving the transition of the state's electricity grid to renewable energy. Eligible renewable sources under the RPS include wind, small hydropower, solar, geothermal, biomass, and biogas. The RPS goals have been updated since adoption of SB 1078 in 2002. In general, California has RPS requirements of 50 percent by 2026 (SB 100), 60 percent by 2030 (SB 100), 90 percent by 2035 (SB 1020), and 100 percent carbon free by 2045 (SB 100 and SB 1020).

The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers such as SCE, whose compliance with RPS requirements would contribute to the state objective of transitioning to renewable energy. As previously stated, the proposed project would be required to comply with the current Building Energy Efficiency Standards to ensure that electricity use associated with the proposed improvements would be minimized. Therefore, implementation of the proposed project would not conflict with or obstruct implementation of California's RPS program or other plans or policies adopted for renewable energy and energy efficiency. Impacts would be **less than significant**.

VII. Geology and Soils

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

DISCUSSION

a) ***Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

Fault Rupture

Alquist-Priolo Earthquake Fault Zones are regulatory zones surrounding the surface traces of active faults in California that have ruptured in the last 11,000 years (DOC 2026c). An active fault has the potential for surface rupture, and a structure for human occupancy cannot be placed over the fault but must be a minimum distance from the fault (generally 50 feet).

Based on the California Geological Survey's Earthquake Zones of Required Investigation mapper, there are no Alquist-Priolo Earthquake Fault Zones on or near the project site (DOC 2026d). The nearest Alquist-Priolo Earthquake Fault Zones is the Whittier Fault Zone 1.6 miles northeast of

the project site. No active faults, trace faults or any other faults traverse through or encroach on the boundaries of the project site (DOC 2026d, 2026e). Since no active faults or any other fault exist on site, surface rupture would not occur. Therefore, a **less than significant** impact would occur.

Seismic Ground Shaking

As discussed above, the project site is not located within an established Alquist-Priolo Earthquake Fault Zone. However, the project site, like all areas in Southern California, is subject to ground movement associated with earthquakes along the active faults. The degree of ground shaking, and earthquake-induced damage is dependent on multiple factors, such as distances to causative faults, earthquake magnitudes, and expected ground accelerations. The proposed project would be required to comply with the seismic design parameters of the California Building Code (CBC), which regulates all building and construction projects and implements a minimum standard for building design and construction that includes specific requirements for seismic safety and evacuation. Compliance with the CBC would ensure impact related to seismic shaking would be **less than significant**.

Liquefaction

Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based upon three main contributing factors:

- Cohesionless, granular soils having relatively low densities (usually of Holocene age).
- Shallow groundwater (generally less than 50 feet).
- Moderate to high seismic ground shaking.

Cohesionless and granular soils are sand or gravel, typically with little or no clay content. Soil liquefaction generally occurs in submerged granular soils and non-plastic silts during or after strong ground shaking.

As identified by the La Habra Draft Safety Element Figure 7-4, the project site is not subject to liquefaction (La Habra 2024). The nearest liquefaction zone is 0.47 miles south of the project site (DOC 2026d). Since no areas of liquefaction exist on site, liquefaction would not occur. Therefore, a **less than significant** impact would occur.

Landslides

Based on the Draft Safety Element Figure 7-3, the project site is not within a landslide susceptibility zone (La Habra 2024). The nearest landslide zone is approximately 1.3 miles southwest of the project site (DOC 2026d). The project site is on primarily flat terrain with a slight slope east to west. Additionally, the proposed project would be designed and constructed

consistent with the CBC, which would ensure that impacts related to landslides are **less than significant**.

b) ***Would the proposed project result in substantial soil erosion or the loss of topsoil?***

Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed, or dissolved and removed from one place and transported to another. The project site contains relatively flat terrain or is already developed, which decreases the project's potential to accelerate erosion. The project site is developed with existing athletic fields, associated structures, and classroom building 400.

Implementation of the proposed project would require limited earthwork which include grading for proper base and slope for the restroom building, bleachers, and track and field; drill holes for installation of proposed light poles, and utility trenching. Additionally, the proposed project does not contain any subterranean levels and would not require extensive excavation, which could expose more soils to erosion. In addition, because the project site encompasses an area of more than one acre, the proposed project would be subject to the National Pollutant Discharge Elimination System (NPDES) permit requirements. These include the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and Monitoring Program. The SWPPP for the proposed project would describe minimum and advanced construction best practices for erosion control at the site. Additionally, adherence with existing state and local laws regulating construction activities would minimize soil erosion. At project completion, the project site would be developed with track and field improvements, walkways and other paved areas, and landscaping while classroom building 400 would be modernized; thus, soil on-site would not be susceptible to substantial erosion. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil, and a **less than significant** impact would occur.

c) ***Would the proposed project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The project site is primarily flat and, as discussed above Section VII(a), the project site is not within an area subject to landslides or liquefaction and adherence with the CBC would ensure that impacts would be less than significant.

Lateral spreading is a type of liquefaction-induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer (Caltrans 2020). Due to the project site not being in an identified liquefaction susceptibility zone, there is little potential for lateral spreading to occur. In addition, the proposed project would excavate and recompact the upper soils and any loose fill soils within the project site. Due to recompacting of the soil and adherence to CBC policies, seismic settlement or lateral spreading would not occur.

Subsidence occurs when the level of the ground decreases, as if the surface is sinking. Subsidence can either be sudden (as in a sinkhole) or happen gradually over time. It can be caused by mining, groundwater pumping, or fossil fuel extraction, creating empty underground spaces that can collapse and cause the soil above to drop. Erosion, natural cave collapses, and seismic activity can also cause subsidence.

The project site is not located within an area of that has experienced land subsidence (USGS 2026). In addition, the project would be designed and constructed in compliance with CBC and DSA requirements. Therefore, impacts related to land subsidence would be less than significant.

The collapse of soils occurs with (1) an open, partially unstable, partially saturated fabric; (2) sufficient total stress to make the soil structure metastable; (3) the presence of a bonding agent or sufficient soil suction to stabilize the soil in the metastable condition; and (4) the addition of water, which reduces soil suction or softens/destroys the bonding agent, thereby causing shear failures at the inter-aggregate or inter-particle contacts (Caltrans 2024). The project site does not contain shallow groundwater, and the nearest well is 0.36 mile west. The depth to groundwater is approximately 36.49 feet (CDWR 2026a). Thus, the potential for groundwater to create collapsible soils on-site is not present. The proposed project would be designed and constructed in accordance with the CBC to withstand landslide, liquefaction, lateral spreading, subsidence, liquefaction, or collapse potential. Therefore, this impact is **less than significant**.

d) ***Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

Expansive soils contain certain types of clay minerals that shrink when they dry out and swell when soils become wet, resulting in the potential for cracking building foundations and in some cases, structural distress of the buildings themselves.

Based on the web soil survey mapper the underlying soil is composed primarily of Myford Sandy loam (173), Sorrento Clay Loam (0 to 2 percent slopes, 208), and Sorrento Clay Loam (2 to 9 percent slopes, 209) (USDA 2026). Soil Plasticity Index (PI) identifies the soil's ability to change shape, and the International Building Code (IBC) states a PI of 15 or greater (IBC Section 1803.5.3) is considered an expansive soil.

The majority of the site contains Sorrento Clay Loam (0 to 2 percent slopes, 208) with a PI of 22, followed by Sorrento Clay Loam (2 to 9 percent slopes, 209) with a PI of 22, identifying that expansive soils exist on site. However, the presence of expansive soil is commonly and effectively reduced by various design techniques such as 1) proper design of foundations, slabs, streets, and other improvements subject to the influence of the soils; 2) overexcavation of the expansive soils/bedrock and replacement with less-expansive fill soils; 3) control of surface and subsurface drainages to prevent moisture variations; and 4) combinations of these various techniques (UFC 2025). With site-specific geotechnical investigation and compliance with the

seismic design parameters of the CBC impacts related to expansive soils would be reduced to **less than significant**.

e) ***Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

The proposed project would not require the installation or use of a septic tank or alternative wastewater disposal system. Therefore, **no impact** would occur.

f) ***Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Paleontological resources or fossils are remains of ancient plants and animals that can provide scientifically significant information about the history of life on earth. This sensitivity is determined by rock type, history of the geologic unit in producing significant fossils, and fossil localities that are recorded from that unit.

Based on the Controller Compilation of Quaternary Surficial Deposits mapper the soil deposits underlying the project site are of very old alluvial fan deposits of a Pleistocene epoch (DOC 2026f). The University of California Museum of Paleontology at UC Berkeley is a research and educational institution that studies fossils and evolutionary history and maintains scientific collections and online resources on the history of life; its Museum Locality database catalogs over 111,000 named fossil collection sites worldwide, including associated geologic and location data, linked to more than 542,000 searchable specimen records across plant and animal fossil groups. Based on a search of the University of California Museum of Paleontology Localities, of the 1,112 localities within Orange County, 138 localities have been found from the Pleistocene epoch (UCMP 2026). Due to the developed/disturbed nature of the project site, paleontological resources are not expected to be discovered during project construction, though it is possible that unknown paleontological resources could be discovered during earthwork activities. Implementation of Mitigation Measure GEO-1 (MM GEO-1) requires the contractor to notify a qualified paleontologist to investigate paleontological resources in the event they are uncovered; this would ensure that impacts associated with paleontological resources would be **less than significant with mitigation incorporated**.

> **Mitigation Measure GEO-1:** In the event that fossils or fossil locality deposits are discovered during construction, excavations within 50 feet of the fossil locality shall be temporarily halted until removal of the fossil localities. The contractor shall notify a qualified paleontologist to investigate its significance. If the fossil locality is determined to be significant by the qualified paleontologist the paleontologist shall work with the District to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to

resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project based on the qualities that make the resource important.

VIII. Greenhouse Gas Emissions

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[1]

Information on manufacture of cement, steel, and other "life cycle" emissions that would occur as a result of the project are not applicable and are not included in the analysis.[2] Black carbon

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[2] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (CNRA 2018). Because the amount of materials consumed during the operation or construction of the proposed project

emissions are not included in the GHG analysis because the California Air Resources Board (CARB) does not include this short-lived climate pollutant in the state's Senate Bill 32 (SB 32) and Assembly Bill 1279 (AB 1279) inventory but treats it separately.[3] A background discussion on the GHG regulatory setting and GHG modeling can be found in Appendix A to this Initial Study.

DISCUSSION

a) ***Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

As seen in Table 8, *Project-Related Operation GHG Emissions*, the proposed project would generate 28 $MTCO_2e$ per year. Annual average construction emissions were amortized over 30 years and are included in the emissions inventory to account for one-time GHG emissions from the construction phase of the proposed project. The proposed project would not generate new trips to the project site, resulting in no increase in mobile source emissions. The proposed improvements would result in a slight increase in water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), and energy usage (i.e., electricity for the buildings and field lighting).

is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (LCI 2008).

[3] Particulate matter emissions, which include black carbon, are analyzed in Section III, *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The state's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017).

Table 8 Project-Related Operation GHG Emissions

Source	GHG Emissions ($MTCO_2e$/Year)
Mobile	0
Area	<1
Building Energy	5
Water	4
Solid Waste	1
Refrigerants	<1
Field Lighting[1]	13
30-Year Amortized Construction Emissions	5
Total	**28**
South Coast AQMD Bright-Line Threshold	**3,000 $MTCO_2e$/Year**
Exceeds Bright-Line Threshold?	**No**

Source: Appendix A. Based on CalEEMod, Version 2022.1; South Coast AQMD 2008b.

Notes: MTons = metric tons; MTCO2e = metric ton of carbon dioxide equivalent; totals may not add up due to rounding.

1 Emissions from field lighting calculated off-model based on average hours of lighting per event (Appendix A).

As shown in Table 8, construction and operation of the proposed project would not generate an increase of annual emissions that exceed the South Coast AQMD Working Group bright-line threshold of 3,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year (South Coast AQMD 2010). Therefore, the proposed project's cumulative contribution to GHG emissions would be **less than significant**.

b) ***Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A consistency analysis with these plans is presented below.

CARB Scoping Plan

CARB's latest Climate Change Scoping Plan (2022) outlines the State's strategies to reduce GHG emissions in accordance with the targets established under AB 32, SB 32, and AB 1279 (CARB 2022). The Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water

efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS) and changes in the corporate average fuel economy standards (e.g., California Advanced Clean Cars program).

The proposed project would not use natural gas, consistent with the Scoping Plan's decarbonization goals. The project would also not generate new trips to the project site and is eligible to be screened out from the need for full project level VMT analysis, as discussed in Section XVII. The proposed project would not add new parking to the project site, which would require compliance with CALGreen electric vehicle charging standards. In addition, the project would comply with statewide measures pertaining to on-road vehicles, off-road equipment, and transportation fuels that have been adopted since AB 32, SB 32, and AB 1279 were adopted. Therefore, the proposed project would not obstruct implementation of the 2022 Scoping Plan, and impacts would be less than significant.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG adopted the 2024-2050 RTP/SCS, Connect SoCal, in April 2024. Connect SoCal is a long-term plan for Southern California region that details the development, integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area (SCAG 2024). This plan outlines a forecasted development pattern that demonstrates how the region can sustainably accommodate needed housing and job centers with multimodal mobility options. The overarching vision is to expand alternatives to driving, advance the transition to clean-transportation technologies, promote integrated and safe transit networks, and foster transit-oriented development in compact and mixed-use developments (SCAG 2024).

In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and federal Clean Air Act requirements. The projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would reduce per-capita GHG emissions related to vehicular travel and achieve the GHG reduction per capita targets for the SCAG region. The Connect SoCal Plan does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency to governments and developers.

As discussed in Section XVII, the proposed project is a local-serving K-12 public school that screens out of VMT analysis. VMT impacts are therefore considered less than significant. Additionally the proposed project would not generate new trips to the project but instead redistribute existing trips to later times of the day to use the field lighting. Furthermore, the proposed project would not change the underlying zoning or uses on the project site and would continue to serve the local student population and neighboring communities. Accordingly, the

proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the SCS, and impacts would be **less than significant**.

IX. Hazards and Hazardous Materials

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

DISCUSSION

a) ***Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Construction

Construction of the proposed project would require small amounts of hazardous materials such as vehicle fuels, lubricants, grease and transmission fluids, paints, and coatings. The handling, use, transport, and disposal of hazardous materials during the construction phase of the proposed project would comply with existing regulations of several agencies—the US Environmental Protection Agency (EPA), California Division of Occupational Safety and Health (Cal/OSHA), United States Occupational Safety and Health Administration, and United States Department of Transportation.

Operation

Operation of the proposed project would involve the use of hazardous materials typical of school facilities such as cleaning and maintenance supplies (cleaners, gasoline, paint and pesticides). The proposed project includes the modernization of an existing classroom building and track and field improvements that would use cleaners and other chemicals in relatively small quantities, which are not typically considered hazardous materials that could result in a significant hazard to the public or the environment.

Furthermore, the use, storage, transport, and disposal of hazardous materials during both construction and operational phases would be governed by existing regulations of several agencies, including the EPA, US Department of Transportation, Cal/OSHA, Orange County Health Care Agency, and Orange County Environmental Health Division, similar to the construction phase. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts.

As described in Section 2.3.1, the proposed project would include installation of a synthetic track and synthetic turf field. Some artificial turf products contain per- and polyfluoroalkyl substances (PFAS), which are sometimes referred to as "forever chemicals" because they persist in the environment and resist degradation. The project would use TenCate Pivot Performance Turf which is manufactured with ONE-DNA synthetic turf technology. According to the manufacturer, ONE-DNA turf has been independently tested and certified, its environmental impacts are documented through Environmental Product Declarations (EPDs) based on life-cycle assessments, and it complies with European Union safety standards, including EN 71-3, and does not contain PFAS, heavy metals, or volatile organic compounds (VOCs) (TenCate 2026). As such, the proposed synthetic track and synthetic turf field would not include hazardous materials such as PFAS, heavy metals, or VOCs.

Therefore, substantial hazards to the public or the environment arising from the routine use, storage, transport, and disposal of hazardous materials would be **less than significant**.

b) ***Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

California Government Code Section 65962.5 requires referencing a list of hazardous materials sites, hazardous waste discharges for which the State Water Control Board has issued certain types of orders, public drinking water wells collecting detectable levels of organic contaminants, underground storage tanks with reported unauthorized releases, and solid waste disposal facilities from which hazardous waste has migrated.

The project site is currently developed with the existing SOHS's athletic fields, classroom building 400, and animal grazing area. Seven environmental lists were searched for hazardous materials site on the project site:

- GeoTracker. State Water Resources Control Board (SWRCB 2026)
- EnviroStor. Department of Toxic Substances Control (DTSC 2026a)
- EnviroStor. Cortese List (DTSC 2026b).
- CalEPA. Cortese List Data Resources. (CalEPA 2026a).
- CalEPA. California EPA. (CalEPA 2026b)
- Solid Waste Information System (SWIS). California Department of Resources Recovery and Recycling (Cal Recycle 2026).
- Well Finder. Geologic Energy Management Division (CalGEM)(DOC 2026g)

The SOHS campus and project site were identified by the CalEPA database, and five sites were identified within 0.25 mile of the project site in the CalEPA and GeoTracker databases, listed on Table 9, *Hazardous Materials Sites On-Site or Within 0.25 mile of the Project Site*.

Table 9 Hazardous Material Sites On-Site or Within 0.25 mile of the Project Site

Location	Database	Identifier	Cleanup Status	Proximity to Site
401 S Palm Street La Habra, CA 90631	CalEPA	Chemical Storage Facilities; Hazardous Waste Generator	Open – Hazardous Waste Generator (6/25/2025); Closed - Hazardous Materials Release Response Plans (2016)	On-site
600 S Palm Street La Habra, CA 90631	CalEPA	Chemical Storage Facilities; Hazardous Waste Generator	Open – Hazardous Waste Generator (2/19/2025); Closed – Hazardous Materials Release Response Plans (2016, 2019, 2022)	0.23 mile southeast
631 S Palm Street Suite C La Habra, CA 90631	CalEPA	Chemical Storage Facilities	Closed – Hazardous Materials Release Response Plans (2017)	0.22 mile southeast
550 S Palm Street La Habra, CA 90631	GeoTracker; CalEPA	LUST Cleanup Site	Completed – Case Closed as of 10/22/1991	0.24 mile southeast
2007 E Lambert Road La Habra, CA 90631	CalEPA	Chemical Storage Facilities; Hazardous Waste Generator	Open – Hazardous Materials Release Response Plans (2020); Closed – Hazardous Materials Release Response Plans (2018, 2019); Hazardous Waste Generator (2021)	0.25 mile southeast
1901 E Lambert Road La Habra, CA 90631	GeoTracker; CalEPA	LUST Cleanup Site	Completed – Case Closed as of 9/30/1997	0.20 mile southeast

Source: CalEPA 2026; SWRCB 2026.

The facility at 600 S Palm Street is listed as a hazardous waste generator and has an open violation, with five citations related to three 55-gallon containers of waste brake cleaner, fuel filters, and used oil that exceeded hazardous waste accumulation time limits. The site at 2007 East Lambert Road also has an open violation and received a citation related to its Hazardous Materials Release Response Plan for failure to adequately establish and implement a required business plan when storing or handling hazardous materials at or above reportable quantities. As shown in Table 9, CalEPA identifies the campus as a site that stores chemical and hazardous materials on site. According to CalEPA records, the SOHS campus is a hazardous waste generator with one open violation and a citation for failure to maintain hazardous waste manifests for inspection. As discussed in Section IX(a), the campus currently uses and would continue to use hazardous materials typical of school facilities, such as cleaning and maintenance supplies, which would be stored, handled, and disposed of in accordance with applicable federal, state, and local regulations. The identified open violation on the project site is administrative in nature and not associated with upset or accidental release of hazardous materials. All other violations listed in Table 9 have been resolved and closed.

Given the regulatory status of the listed facilities and their distances from the project site, no known hazardous materials sites on or near the project site would be expected to create a significant hazard to the public or the environment through accidental release. Therefore, impacts would be **less than significant**.

c) ***Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Other than the SOHS campus, no other existing or proposed schools are within 0.25 mile of the project site. The closest campus to the SOHS campus is Washington Middle School, which is approximately 0.6 miles northwest of the project site. As discussed in Section XI(a), construction and operation of the proposed project would handle small amounts of hazardous materials typical of construction activities and school related activities (during operation). The use, transportation and storage of hazardous materials would be required to comply with all applicable state and federal regulations that would ensure the proper handling of such materials. Additionally, as discussed in Section IX(b), the identified open violation on the project site is administrative in nature and is not associated with upset or accidental release of hazardous materials. Therefore, impacts would be **less than significant**.

d) ***Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Seven environmental lists were searched for hazardous materials site on the project site:

- **GeoTracker.** State Water Resources Control Board (SWRCB 2026)

- **EnviroStor.** Department of Toxic Substances Control (DTSC 2026a)
- **EnviroStor.** Cortese List (DTSC 2026b).
- **CalEPA.** Cortese List Data Resources. (CalEPA 2026a).
- **CalEPA.** California EPA. (CalEPA 2026b)
- **Solid Waste Information System (SWIS).** California Department of Resources Recovery and Recycling (Cal Recycle 2026).
- **Well Finder.** Geologic Energy Management Division (CalGEM)(DOC 2026g)

As determined in Section IX(b), according to CalEPA records, the SOHS campus is a hazardous waste generator with one open violation and a citation for failure to maintain hazardous waste manifests for inspection. As such, the identified open violation on the project site is administrative in nature and not associated with upset or accidental release of hazardous materials and would not create a significant hazard to the public or the environment. Additionally, the project site is not listed in the Cortese List (CalEPA 2026b). Therefore, impacts would be **less than significant**.

e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project result in a safety hazard or excessive noise for people residing or working in the project area?***

The closest public airport to the project site is Fullerton Municipal Airport at approximately 4.5 miles southwest of the project site. The project site is not within the Fullerton Municipal Airport land use plan airport impact zones nor noise contours (OC ALUC 2019). The project site is not within two miles of a public airport or public use airport. **No impact** would occur.

f) ***Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Please refer to Section XX(a), *Wildfire*, for discussion on interference with an adopted emergency response plan or emergency evacuation plan. A **less than significant** impact to an adopted emergency response plan or emergency evacuation plan were identified.

g) ***Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

The project site is in a highly developed and urbanized residential area in the City of La Habra. As discussed in Section XX, *Wildfire*, according to Figure 7-6, Wildfire Hazard Severity Zones, in the La Habra General Plan, the project site and the surrounding area are not within a very high fire hazard severity zone (La Habra 2024). The proposed project would not expose any additional persons or structures directly or indirectly to a significant risk of loss, injury, or death involved by wildland fires. **No impact** would occur.

X. Hydrology and Water Quality

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

Urban runoff from storms or nuisance flows (runoff during dry periods) from development projects can carry pollutants to receiving waters. Runoff can contain pollutants such as oil, fertilizers, pesticides, trash, and sediment. This runoff can flow directly into local streams or into storm drains and continue through stormwater pipes until it is released untreated into a local waterway and eventually the ocean. Untreated stormwater runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats. The construction and operational phases of the proposed project could have the potential to impact water quality. The following is a discussion of the potential impact that the construction and operational phases of the proposed project could have on water resources and quality.

Construction

Clearing, grading, excavation, demolition, and construction activities associated with the proposed project may impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. Additionally, the use of construction materials such as fuels, solvents, paints, and concrete may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

The proposed project would be required to comply with all applicable regulatory requirements governing water quality. The proposed project would be required to comply with the National Pollutant Discharge Elimination System Construction General Permit (CGP) (2022-0057-DWQ). The CGP requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) that incorporates BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The State Water Resource Control Board (SWRCB) mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. Prior to the start of construction activities, the project applicant must file Permit Registration Documents (PRD) with the SWRCB, which includes a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is required to maintain a copy of the SWPPP on-site at all times and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the commencement of a grading activities, the project applicant is required to provide proof of filing of coverage under the CGP with the SWRCB.

The SWPPP must describe construction BMPs that address pollutant source reduction and provide measures/controls to mitigate potential pollutant sources. These include, but are not limited to:

- Erosion controls (e.g., earth dikes and swales, mulching, slope drains, compost blankets)
- Sediment controls (e.g., silt fence, sediment trap, sandbag or straw bale barriers)
- Tracking controls (e.g., stabilized construction entrance/exit, tire wash)
- Nonstorm water management (e.g., dewatering practices, vehicle and equipment cleaning)
- Materials and waste management (e.g., material storage, hazardous waste management, soil management)
- Good housekeeping practice

Coverage under the CGP and implementation of the SWPPP and its associated BMPs throughout the construction phase would result in an impact of **less than significant**.

Operation

Once the proposed project has been constructed, urban runoff could include a variety of contaminants that are typical of operation of educational uses, that could impact water quality. The proposed project would be required to comply with applicable federal and state laws and local regulations governing the use, storage, transport, and disposal of hazardous materials and would ensure impacts would be less than significant.

The proposed project is required to comply with the post-construction performance standards under the SWRCB's CGP. Additionally, requirements for waste discharges to stormwater from operation of developed land uses are set forth in the Municipal Stormwater Permit (MS4 Permit), Order No. R8-2009-0030 as amended by Order R8-2010-0062, issued by the Santa Ana Regional Water Quality Control Board (RWQCB). The proposed project is required to prepare and implement a WQMP pursuant to the MS4 Permit, specifying BMPs to be used during project design and operation to minimize stormwater pollution. The WQMP is required to be prepared in accordance with the Model Water Quality Management Plan and Technical Guidance Document. In compliance with the MS4 Permit, specific nonstructural and structural source control BMPs would be incorporated into the proposed project. Typical site-design BMPs and source-control BMPs include the examples below. The proposed project would use a combination of BMPs to meet SWRCB's requirements.

Site Design BMPs

Site design BMPs would be incorporated into the project's design to reduce the potential impacts on surface and groundwater quality. These may include, but are not limited to:

- Maximizing pervious areas and minimizing directly connected impervious areas.

- Using on-site ponding areas (i.e., at-grade detention basins).
- Constructing hardscape with permeable materials and implementing hydrologically functional landscape design.
- Incorporating trees, open space, and landscaping to mitigate urban heat island impacts.
- Including mostly native plants and drought-tolerant plants in landscaping plans.
- Using effective irrigation systems to minimize water usage.

Source Control BMPs

Source control BMPs effectively minimize the potential for typical urban pollutants to contact stormwater, thereby limiting water quality impacts downstream. Source control BMPs would be incorporated into the proposed project and implemented throughout the operation of the campus. These BMPs could include the following:

- Educational uses related to urban runoff provided to all employees, and staff.
- Inspection and maintenance of site BMPs—catch basins, grate inlets, etc.
- Providing storm drain stenciling or signage on all storm drain inlets and catch basins.
- Properly designing and inspecting all trash storage areas, loading docks, outdoor storage areas, and outdoor work areas on a regular basis.

The proposed project would include installation of an approximately 16,000-square-foot bioretention area on the western perimeter of the track and field as a primary post-construction BMP. This bioretention area would capture and treat stormwater runoff from adjacent impervious surfaces, filtering pollutants through vegetation and engineered soils while promoting groundwater infiltration. This feature would control runoff volumes and improve water quality, ensuring discharges are consistent with applicable standards. As part of compliance with statewide water quality objectives and the Municipal Separate Storm Sewer System (MS4) Permit, the project would adhere to all requirements for stormwater management, including those outlined in the SWRCB Trash Amendments. This would involve the installation and maintenance of appropriate full-capture trash screening devices at all relevant storm drain inlets as certified by the SWRCB.

Although the City does not have its own water quality control plan, the City ensures that the policies and programs such as the Water Control Plan for the Santa Ana River Basin (Basin Plan), and NPDES permits are implemented to preserve water quality. Furthermore, the proposed project would be required to meet the City of La Habra's water quality ordinance (Chapter 13.24, Water Quality Ordinance). With the implementation of the BMP features described above to control the amount and quality of the stormwater leaving the project site, and compliance with State and local regulations, the proposed project would not violate any water

quality standards, plans, or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, impacts would be **less than significant**.

b) ***Would the proposed project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

The project site is located within the Coastal Plain of the Orange County Groundwater Basin (OC Basin), which is classified as a medium priority basin due to heavy reliance on the Basin as a source of water supply (CDWR 2026a).

The City of La Habra is a retail water supplier that serves residents and businesses using a combination of purchased groundwater supplies from the Main San Gabriel Basin provided by California Domestic Water Company, locally produced groundwater from City-operated wells, and imported treated water obtained through the Municipal Water District of Orange County (MWDOC), which receives supplies from the Metropolitan Water District of Southern California. According to the City's 2020 Urban Water Management Plan, the water utility system includes three storage reservoirs with a combined capacity of approximately 16.8 million gallons, five booster pumping stations, three active groundwater wells, approximately 165 miles of water mains, and about 14,500 service connections. Recent supply portfolios show the majority of water is obtained through purchased basin groundwater, with the remainder from City groundwater production and a small percentage of imported treated water. Long-term projections indicate a similar supply mix through 2045, with groundwater supplies continuing to represent the majority share and imported water serving a supplemental role (La Habra 2021).

The project site is currently developed with the existing SOHS academic buildings, athletic fields, track, and animal grazing area. Stormwater from the project site percolates into the ground in pervious areas, runs off impervious surfaces to existing drainage systems, and flows into the City of La Habra's municipal storm drain system. The proposed project would result in a change to impervious/pervious surfaces: it would add new impervious surfaces, such as a concrete walkway around the track and a new restroom building pad, while also converting a portion of the existing animal grazing area (a pervious surface) into an auxiliary field with sod and irrigation. A key feature of the project is the installation of an approximately 16,000-square-foot bioretention area, which is specifically designed to capture and infiltrate stormwater runoff, thereby promoting on-site groundwater recharge. Stormwater runoff from new impervious areas would be managed through this new bioretention area and directed into the existing on-site and municipal storm drain systems. No natural water features (e.g., streams or creeks) that serve as primary groundwater recharge sources are located in the immediate project vicinity. The project site is not currently used, nor is it designated, as a significant or important groundwater recharge area. The proposed project does not include the construction of groundwater extraction wells and would not interfere with groundwater supplies or a groundwater management plan. The inclusion of the bioretention area is designed to improve

post-construction infiltration compared to pre-project conditions for the affected areas. Therefore, impacts on groundwater recharge and supplies would be **less than significant**.

c) ***Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***

i. result in a substantial erosion or siltation on- or off-site;

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. impede or redirect flood flows?

Erosion or Siltation

Erosion and siltation impacts that could result from alteration of drainage patterns would, for the most part, occur during the proposed project's construction phase, which would include site preparation, demolition, grading, and trenching activities. Environmental factors that affect erosion include topography, soil type, wind, and rainfall. Siltation is associated with sediment transport and deposition in waterways. The proposed project would not involve the alteration of any natural drainage channels or any watercourse, since none exist onsite. The proposed project would involve the conversion of some pervious surfaces (e.g., animal grazing area) to improved athletic fields and would add new impervious surfaces (e.g., walkways). If not controlled during construction, the transport of soil from earthwork to local storm drains could temporarily increase suspended sediment concentrations and release pollutants attached to sediment particles into local waterways.

As discussed in Section X(a) of this document, the proposed project would be required to submit PRDs and a SWPPP to the SWRCB for approval prior to any construction activities. The SWPPP would describe the BMPs to reduce the impact of erosion and siltation, including silt fencing, stabilized construction exits, and sediment basins. The operational phase of the project would be required to comply with State and local regulations, which would include SWRCB Trash Amendments, and would implement site design and source control BMPs, as described in Section X(a), to reduce erosion and siltation. Implementation of the project BMPs during the construction and operational phase would ensure that erosion and siltation impacts would be **less than significant**.

Flooding On- or Off-site

The project site is developed with the existing SOHS academic buildings, athletic fields, track, and grazing area. The proposed project would not involve the alteration of any natural drainage channel or watercourse, since none exist onsite.

The proposed project would alter the existing drainage onsite through the construction of new impervious surfaces, the conversion of pervious areas, and the installation of a new bioretention area. Stormwater runoff would be directed into the newly constructed bioretention area for infiltration, conveyed to existing storm drains on-site, and/or flow into storm drains in the public right-of-way.

The proposed project would result in a change to the site's impervious/pervious surface balance; however, with the implementation of site BMPs, including the new bioretention area designed to capture, retain, and infiltrate runoff, the post-project stormwater discharge rate and volume from the site are not anticipated to exceed pre-project conditions in a manner that would induce flooding on-site or downstream. The proposed project would not substantially increase the rate or amount of surface runoff in a manner that would cause flooding. Therefore, impacts related to stormwater drainage and flooding are **less than significant**.

Stormwater Drainage Systems

The project site is fully developed with the existing SOHS campus. The proposed project would result in a net change to impervious surfaces, including new walkways and a restroom building, balanced by the addition of a significant stormwater treatment feature. Stormwater from the proposed project would be managed through the new 16,000-square-foot bioretention area, directed to existing on-site storm drains, and/or percolated into the ground. The bioretention area is specifically designed to collect, detain, and infiltrate peak runoff flows in a controlled manner, promoting groundwater recharge and reducing discharge rates. Therefore, the proposed project is designed to manage stormwater flows to be consistent with existing conditions. As discussed in Section X(a), construction and operation of the proposed project would be required to implement BMPs that control the amount and quality of stormwater leaving the project site.

Construction and operation of the proposed project would use small quantities of hazardous materials, such as fuels, solvents, paint, and concrete additives during construction, and typical cleaning and maintenance chemicals during operation. All potentially hazardous materials used on-site are typical of construction activities and of educational uses. All such materials would be properly handled, stored, used, and disposed of in accordance with the SWPPP and standard regulations, and would not represent a substantial new source of pollution.

The proposed project, through its integrated bioretention feature and compliance with all SWPPP and MS4 Permit requirements, would not exceed the capacity of existing stormwater

drainage systems, and would not create substantial additional sources of polluted runoff. Impacts would be **less than significant**.

Impede or Redirect flood flows

The project site is not within a Federal Emergency Management Act (FEMA) 100-year flood zone (FEMA 2026). The project site is within FEMA Flood Zone X areas of minimal flood hazard.

According to the California Department of Water Resources' Dam Breach Inundation Map, the project site is not within any inundation area (CDWR 2026b). As discussed above, construction of the proposed project would not greatly impede or redirect flood flows. The proposed project would be designed and constructed to be consistent with CBC and other Title 24 building requirements. With adherence to the CBC and federal, State, and local policies, the proposed project would not substantially alter the drainage of the project site, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that impedes or redirect flood flows. Impacts would be **less than significant**.

d) ***In flood hazard, tsunami, or seiche zones, would the proposed project risk release of pollutants due to project inundation?***

The project site is not within a tsunami hazard area (DOC 2026h). Therefore, the proposed project would not risk the release of pollutants due to tsunamis. Additionally, as stated in Section X(c), the project site is not within a FEMA 100-year flood zone and the site is within Zone X areas of minimal flood hazard (FEMA 2026).

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. As stated in Section X(c), the project site is not located within an inundation zone. Additionally, no major water storage tanks or artificial bodies of water exist within the project area.

The proposed project is expected to use small amounts of hazardous materials during construction and operation (e.g., paints, cleaners, oils, etc.). As such, construction and operation of the proposed project would be required to comply with applicable regulations for proper handling, usage, and storage of potentially hazardous materials (see Section IX, *Hazards and Hazardous Materials*). With adherence to State and local policies and DSA review, the proposed project would not release pollutants in the event of project inundation or flood. A **less than significant** impact would occur.

e) ***Would the proposed project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

As previously mentioned in Impact X(b), the proposed project would not substantially interfere with groundwater supplies or recharge and would not obstruct implementation of a sustainable groundwater management plan. The proposed project would be required to submit construction drawings to DSA for approval and would comply with existing local and State regulations.

In addition, the project would not conflict or obstruct any water quality standards or plans, with compliance with the Basin Plan and all applicable State and local water quality regulations. The project would comply with the NPDES permit requirements, the City of La Habra's water quality ordinance (Chapter 13.24, Water Quality Ordinance), and site BMPs to manage the quantity and quality of stormwater runoff. Therefore, this impact is **less than significant**.

XI. Land Use and Planning

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

DISCUSSION

a) ***Would the proposed project physically divide an established community?***

The proposed project would not divide an established residential community because it would occur entirely within the existing SOHS campus. Therefore, the proposed project would not physically divide an established community and **no impact** would occur.

b) ***Would the proposed project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

As stated in Section 2.2.4, *Existing General Plan Land Use and Zoning*, the project site has a land designation of Public Facilities and a zoning designation of Civic Utility. The land use designation

and zoning allow for educational uses which is consistent with the project site's existing land use designation and zoning. Additionally, the proposed project consists of modernizing the northern half of existing building 400 and track and field improvements. The proposed project would not alter or modify the project site's current land use and zoning designations. Development of the proposed project would not conflict with any applicable land use plans, policies or regulations. Therefore, there would be **no impact**.

XII. Mineral Resources

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

DISCUSSION

a) *Would the proposed project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?*

In 1975, the state legislature adopted the Surface Mining and Reclamation Act, which designated mineral resources zones (MRZ) of statewide or regional importance. The classifications used to define MRZs are:

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2a:** Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in

the MRZ-2a category is of prime importance because it contains known economic mineral deposits.

- **MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. For this report, areas classified MRZ-2b contain discovered mineral deposits that are significant inferred resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration work could result in upgrading areas classified MRZ-2b to MRZ-2a.
- **MRZ-3a:** Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources.
- **MRZ-3b:** Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
- **MRZ-4:** Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.

The project site is also located within MRZ-1 which indicates that the presence of significant mineral resources is unlikely (CGS 2026). Additionally, mining on the project site would be incompatible with the surrounding uses, which consist mostly of educational and residential uses. Mining is also not a permitted use under the project site's general plan land use and zoning designations. Implementation of the proposed project would not result in the loss of availability of a known mineral resource or resource recovery site. **No impact** would occur.

b) ***Would the proposed project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

As discussed in Section XII(a), no mineral resources are identified on the project site and it is unlikely that mineral resources are located on the project site. Additionally, the City of La Habra's General Plan states that no significant mineral deposits exist within the City (La Habra 2024). Therefore, **no impact** would occur.

XIII. Noise

Would the project result in:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Noise is defined as unwanted sound. It is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, State of California, and City of Fullerton have established criteria to protect public health and safety and to prevent disruption of certain human activities. Additional information on noise and vibration fundamentals is contained in Appendix C.

Certain land uses are particularly sensitive to noise and vibration. The City of La Habra Municipal Code Chapter 9.32, Noise Control, defines noise sensitive uses as private or public school, hospital, residential, care facility for the elderly, and religious institution. Noise sensitive receptors near the project site are single-family residential uses to the west along S Fonda Street, to the north along Skywood Street and multi-family residential land uses to the east along S Palm Street.

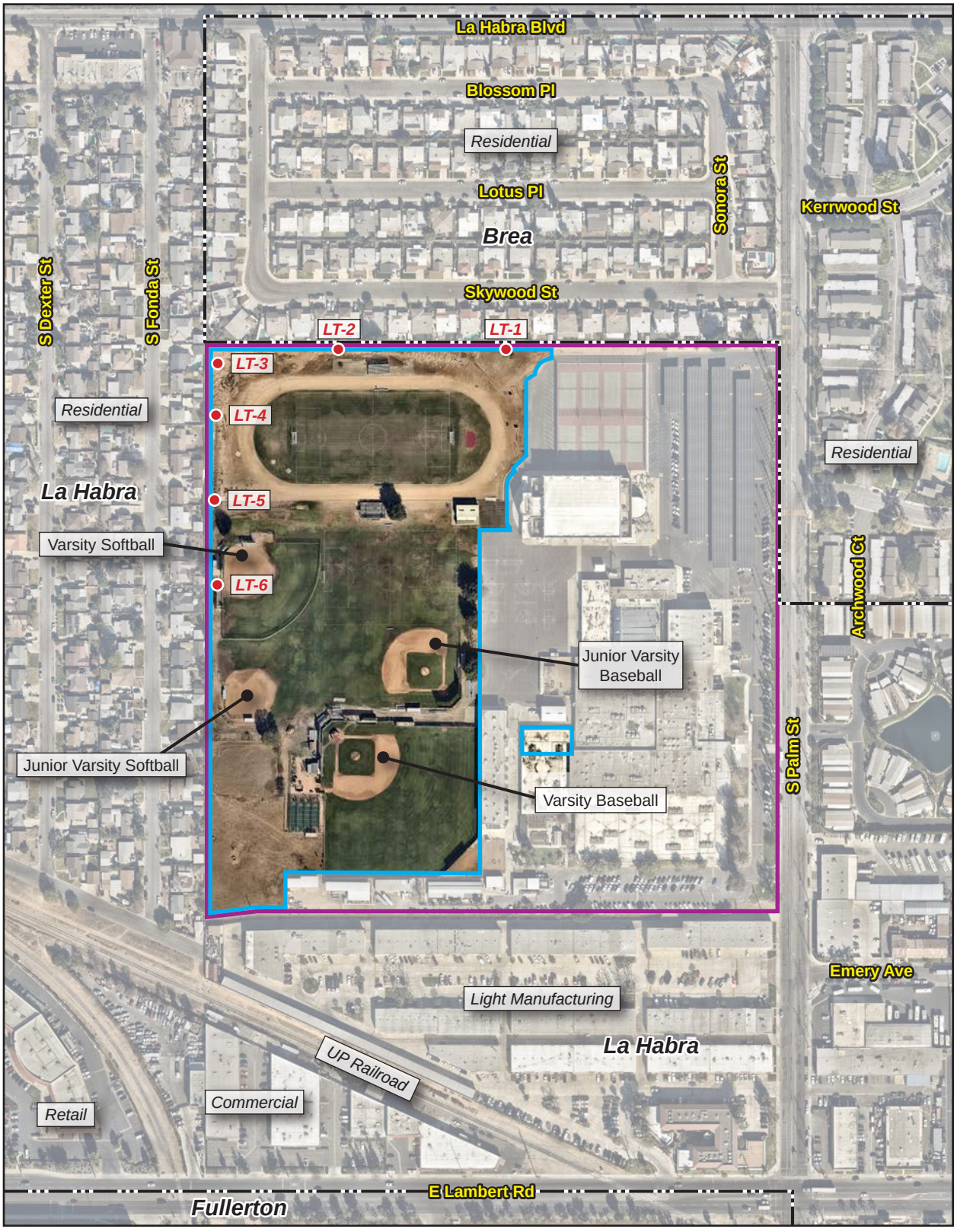
Ambient Noise Monitoring

The project site is located along S Palm Street, in predominantly residential neighborhood with single-family uses to the north and west and multi-family residential uses to the east. Commercial and light industrial uses are located to the south of the project site. The dominant noise environment is traffic noise on S Palm Street to the east of the project site and rail activity to the south of the project site. Existing on-site noise conditions include school band and colorguard practice, after school sports activities, summer sports programs, events noise along with children yelling and playing on school grounds. In addition, typical residential activities, dogs barking, birds, and wind noise also contribute to the existing ambient noise environment.

To determine baseline noise levels of typical school operational noise in the project vicinity, ambient noise monitoring of existing band practice noise was conducted by PlaceWorks. Continuous ambient noise monitoring was also conducted during the weekday. Three short-term (10 to 15-minute) and six long-term (24-hour) measurement locations were selected and conducted around the project site. Short-term band practice noise measurements were conducted at the same locations as the long term noise measurements. Noise measurements were conducted between Tuesday, August 5 and Wednesday, August 6, 2025. The short-term sound level meter (Larson Davis LxT) and the long-term sound level meter (Picollo II) used for noise monitoring satisfy the American National Standards Institute (ANSI) standard for Type 1 and Type 2 instrumentation, respectively. The sound level meters were set to “slow” response and “A” weighting (dBA) and calibrated prior to and after each monitoring period.

Measurements were at least 5 feet above the ground and away from reflective surfaces. Temperatures were moderate, ranging from approximately 61 degrees to 94 degrees Fahrenheit, with wind speeds of up to 10 miles per hour and moderate humidity. Noise measurement locations are described below and shown on Figure 10, *Approximate Noise Monitoring Locations*.

Figure 10 - Noise Monitoring Locations



Source: Nearmap 2025.

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Noise Measurements

Six measurement locations were selected and conducted around the project site. All measurements were conducted on Tuesday, August 5 and Wednesday, August 6, in the afternoon during band practice and continuously for 24-hours. Results are summarized in Table 10, *Short-Term Noise Measurements Summary,* and Table 11, *Long-Term Noise Measurement Summary.* Complete hourly interval noise monitoring data is shown in Appendix C.

Table 10 Short-Term Noise Measurements Summary

Monitoring Location	Description	15-minute Noise Level, dBA						
		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{25}	L_{8}
LT-3	North of Sonora High School track and field and south of the residence at 300 S Fonda Street.	56.1	67.9	43.9	46.1	59.4	56.0	64.4
LT-4	West of Sonora High School track and field and east of the residence at 312 S Fonda Street.	56.8	64.7	42.1	45.3	53.5	58.8	61.5
LT-6	Southwest of Sonora High School track and field and east of the residence at 400 S Fonda Street.	51.1	59.7	41.7	43.4	46.9	53.0	55.7

Source: PlaceWorks. See Figure 10 and Appendix C.

Table 11 Long-Term Noise Measurements Summary

Monitoring Location	CNEL, dBA		Time of Day	Averages, dBA							
				Leq		Lmax		L50		L90	
	Day 1	Day 2		Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
LT-1	61.6	55.8	Daytime (7 am - 7 pm)	63.9	54.8	67.1	64.7	47.2	47.7	49.3	45.7
			Evening (7 pm - 9 pm)	53.1	53.1	66.8	69.5	49.3	49.3	48.5	47.0
			Nighttime (9 pm - 7 am)	45.6	46.1	57.7	56.3	44.9	45.6	43.4	44.8
LT-2	58.3	61.1	Daytime (7 am - 7 pm)	54.3	61.5	66.6	72.4	51.6	52.5	45.5	50.4
			Evening (7 pm - 9 pm)	58.2	57.6	73.4	73.0	53.3	53.7	44.7	51.0
			Nighttime (9 pm - 7 am)	48.9	49.8	61.4	59.6	48.1	49.2	40.9	48.3
LT-3	54.3	55.3	Daytime (7 am - 7 pm)	48.7	52.7	61.4	65.4	46.1	46.8	44.6	45.0
			Evening (7 pm - 9 pm)	53.1	54.0	68.7	69.9	48.8	49.3	46.2	46.6
			Nighttime (9 pm - 7 am)	46.1	46.0	57.6	56.3	45.4	45.5	44.4	44.2
LT-4	54.2	51.0	Daytime (7 am - 7 pm)	54.8	48.1	62.9	63.4	42.7	43.2	41.4	41.5
			Evening (7 pm - 9 pm)	49.0	47.2	65.8	62.3	45.1	44.6	43.2	42.0
			Nighttime (9 pm - 7 am)	43.2	43.0	52.8	53.1	42.4	42.5	41.3	41.6
LT-5	58.4	54.6	Daytime (7 am - 7 pm)	60.2	53.2	70.9	70.7	45.9	46.6	44.8	44.8
			Evening (7 pm - 9 pm)	51.4	48.5	70.0	64.1	46.6	46.5	45.0	45.0
			Nighttime (9 pm - 7 am)	45.1	46.3	58.6	59.7	44.1	44.5	43.4	43.7
LT-6	60.4	55.4	Daytime (7 am - 7 pm)	56.7	52.0	68.4	67.6	47.4	47.8	45.9	45.9
			Evening (7 pm - 9 pm)	48.9	52.6	71.4	68.7	48.6	50.6	46.5	48.1
			Nighttime (9 pm - 7 am)	46.3	47.2	57.4	57.7	45.6	46.2	44.6	45.2

Source: PlaceWorks. See Figure 10 and Appendix C.

- **Noise Measurement Location LT-1** was conducted on the project site north of the track and field and near the backyard CMU wall of the residence at 1926 Skywood Street. Average hourly daytime noise levels from August 5 to August 6 ranged from 54.8 dBA to 63.9 dBA Leq, evening noise levels were 53.1 dBA Leq, and nighttime noise level ranged from 45.6 dBA to 46.1 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 61.6 dBA CNEL for Day 1 and 55.8 dBA CNEL for Day 2.
- **Noise Measurement Location LT-2** was conducted on the project site north of the track and field and near the backyard CMU wall of the residence at 1954 Skywood Street. Average hourly daytime noise levels from August 5 to August 6 ranged from 54.3 dBA to 61.5 dBA Leq, evening noise levels were 57.6 dBA to 58.2 dBA Leq, and nighttime noise level ranged from 48.9 dBA to 49.8 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 58.3 dBA CNEL for Day 1 and 61.1 dBA CNEL for Day 2.
- **Noise Measurement Location LT-3** was conducted on the project site northwest of the track and field and near the backyard of the residence at 300 S Fonda Street. A 15-minute noise measurement began at 3:21 pm on Wednesday, August 5, 2025, during band practice. Noise levels measured 56.1 dBA Leq and 67.9 dBA Lmax during the short-term band practice measurement. Average hourly daytime noise levels from August 5 to August 6 ranged from 48.7 dBA to 52.7 dBA Leq, evening noise levels were 53.1 dBA to 54.0 dBA Leq, and nighttime noise level ranged from 46.0 dBA to 46.1 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 54.3 dBA CNEL for Day 1 and 55.3 dBA CNEL for Day 2.
- **Noise Measurement Location LT-4** was conducted on the project site west of the track and field and near the backyard of the residence at 312 S Fonda Street. A 15-minute noise measurement began at 3:33 pm on Wednesday, August 5, 2025, during band practice. Noise levels measured 56.8 dBA Leq and 64.7 dBA Lmax during the short-term band practice measurement. Average hourly daytime noise levels from August 5 to August 6 ranged from 48.1 dBA to 54.8 dBA Leq, evening noise levels were 47.2 dBA to 49.0 dBA Leq, and nighttime noise level ranged from 43.0 dBA to 43.2 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 54.2 dBA CNEL for Day 1 and 51.0 dBA CNEL for Day 2.
- **Noise Measurement Location LT-5** was conducted on the project site southwest of the track and field and near the backyard of the residence at 400 S Fonda Street. Average hourly daytime noise levels from August 5 to August 6 ranged from 53.2 dBA to 60.2 dBA Leq, evening noise levels were 48.5 dBA to 51.4 dBA Leq, and nighttime noise level ranged from 45.1 dBA to 46.3 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 58.4 dBA CNEL for Day 1 and 54.6 dBA CNEL for Day 2.
- **Noise Measurement Location LT-6** was conducted on the project site west of the track and field and near the backyard of the residence at 400 S Fonda Street. A 15-minute noise measurement began at 3:33 pm on Wednesday, August 5, 2025, during band practice. Noise levels measured 51.1 dBA Leq and 59.7 dBA Lmax during the short-term band practice

measurement. Average hourly daytime noise levels from August 5 to August 6 ranged from 52.0 dBA to 56.7 dBA Leq, evening noise levels were 48.9 dBA to 52.6 dBA Leq, and nighttime noise level ranged from 46.3 dBA to 47.2 dBA Leq during the two days of continuous 24-hour noise monitoring. The 24-hour noise level was 60.4 dBA CNEL for Day 1 and 55.4 dBA CNEL for Day 2.

Applicable Noise Standards

City of La Habra Noise Standards

The City of La Habra's regulations with respect to noise are included in Chapter 9.32, *Noise Control*, of the Municipal Code, also known as the Noise Ordinance. Construction-related and operational noise restrictions are discussed below:

Section 9.32.050, *Noise Standards - Exterior*, and Section 9.32.060, *Noise Standards – Interior*, defines the exterior and interior noise level limits for residential land uses that apply at all properties, whether incorporated or unincorporated. Table 12, *City of La Habra Noise Standards*, shows the City of La Habra noise limits applied to sensitive uses defined as private or public school, hospital, residential, care facility for the elderly, and religious institution. The City does not have specific noise level limits for commercial or industrial zones.

Table 12 City of La Habra Noise Standards

Land Use	Noise Level (dBA) Property Line	Time Period
Exterior Noise Limits	55 50	7:00 am to 10:00 pm 10:00 pm to 7:00 am
Interior Noise Limits	55 45	7:00 am to 10:00 pm 10:00 pm to 7:00 am

Source: City of La Habra Municipal Code, Noise Ordinance Section 9.32.050 and 9.32.060.

1. The noise standard for a cumulative period of more than thirty minutes in any hour; or
2. The noise standard plus five dB(A) for a cumulative period of more than fifteen in any hour; or
3. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
4. The noise standard plus fifteen dB(A) for a cumulative period of more than one minute but less than five minutes in any hour; or
5. The noise standard plus twenty dB(A) for any period time.

Section 9.32.070, Activities exempt from the chapter provisions include school bands, school athletic and school entertainment events, activities conducted on public parks, public playgrounds and public or private school grounds shall be exempt from the noise level standards specified in Chapter 9.32, Noise Standards and Regulation, of the Municipal Code as regulated under Sections 12.28.090 and 12.28.100 of the Code. Section 9.32.070 also exempts

noise sources associated with construction, repair, remodeling, or grading of any real property, provided the activities do not take place between the hours of 8:00 pm and 7:00 am on weekdays, including Saturday, or at any time on Sunday or a federal holiday.

Federal Transit Administration (FTA) Guidelines

The City does not have regulatory standards for construction or operational noise and vibration sources. As such, the FTA guidelines for construction noise at residential uses of 80 dBA Leq, a vibration standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) not be exceeded to protect normal residential buildings, and a standard of 0.08 in/sec PPV not be exceeded to protect old or historically significant structures is used to determine compliance.

DISCUSSION

a) ***Would the proposed project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Improvements at the campus would begin with removal of existing landscaping, concrete pavement, track and field equipment, and exterior and interior building elements of building 400. Proposed athletic field improvements would install a synthetic track and turf field, new triple/long jump event area, a high jump event area, and sand pit, new sports striping, and sports goals would also be installed. New restroom and storage building would be located north of the new permanent bleachers with a capacity of 1,464 seats. The permanent bleachers would be approximately 18 feet in height. The proposed project would also include field lighting at the baseball and softball fields and at the track and field. A public address (PA) system at the track and field would also be installed.

The proposed project would extend evening practices within the hours of 3:30 PM to 9:00 PM for four sports/activities including softball, football, soccer, and flag football practices and other activities. Practices would not have spectators. The District intends to host periodic schoolwide assemblies at the track and field throughout the school year which would accommodate the entire student body and would occur within the regular school operating hours.

The proposed project would be constructed in one phase and is anticipated to occur from March 2027 to July 2027. No nighttime work or the use of pile-driving equipment is proposed.

Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Noise levels from construction activities are dominated by the loudest

piece of construction equipment. The dominant noise source is typically the engine, although work piece noise (such as dropping of materials) can also be noticeable.

The noise produced at each construction phase is determined by combining the Leq contributions from the three loudest pieces of equipment used at a given time while accounting for the ongoing time variations of noise emissions (commonly referred to as the usage factor). Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of up to 85 dBA at 50 feet. However, overall noise emissions vary considerably, depending on what specific activity is being performed at any given moment.

Noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase would result in different noise levels from construction activities at a given receptor. Since noise from construction equipment is intermittent and diminishes at a rate of at least 6 dBA per doubling of distance (conservatively disregarding other attenuation effects from air absorption, ground effects, and shielding effects provided by intervening structures or existing solid walls), the average noise levels at noise-sensitive receptors could vary considerably, because mobile construction equipment would move around the site (site of each development phase) with different equipment mixes, loads, and power requirements.

The expected construction equipment mix was estimated and categorized by construction activity using the Federal Highway Administration Roadway Construction Model (RCNM). Assuming the nearest off-site sensitive receptor to the closest boundary for project construction activities, construction-related noise levels would be up to 80 dBA Leq at the residential uses to the south during light pole installation. Construction noise levels at receptors further away are estimated to be even less. The results are summarized in Table 13, *Project-Related Construction Noise Levels, dBA at the Nearest Receptors*.

Table 13 Project-Related Construction Noise Level, dBA at the Nearest Receptors

Construction Activity Phase[1]	Noise Levels in dBA Leq			
	RCNM Reference Noise Level	Receptor to North[1]	Receptor to East	Receptor to West
Distance (feet)	**50**	**150**	**760**	**135**
Asphalt Demolition	85	72	61	76
Site Prep	81	68	57	72
Grading	83	70	59	74
Distance (feet)	**50**	**860**	**720**	**555**
Building Construction	79	51	56	58
Architectural Coating	77	49	54	56
Distance (feet)	**50**	**250**	**680**	**125**
Paving	80	63	57	72
Distance (feet)	50	45	650	40
Light Pole Installation	75	73	53	77
Exceeds 80 L_{eq} Standard?		**No**	**No**	**No**

Source: FHWA's RCNM software. See Appendix C.

Note: Distance measurements were taken using Google Earth (2025) from the boundary of work areas to the nearest receptors (see Figure 6 for the boundaries of the work areas associated with the proposed project).

1. 3 dBA applied to account for existing property line CMU wall

The nearest sensitive receptor to project construction activities are residential uses between 40 feet north of proposed light pole installation construction and 170 feet from athletic field improvements. Receptors to the north would be exposed to temporary, periodic, short-term noise levels of up to 77 dBA Leq during light pole installation activities. The proposed project's construction activities would occur within the noise standard exempt time frame identified in Section 15.90.050 of the City of Fullerton Municipal Code, 7:00 am and 8:00 pm on any day except Sunday or a City-recognized holiday. The proposed project's construction activities would not exceed FTA's construction noise standard at residential uses (80 dBA Leq). Therefore, the proposed project's construction-related noise impacts would be **less than significant**.

Operational Off-Site Traffic Noise

A project will normally have a significant effect on the environment related to traffic noise if it substantially increases the ambient noise levels for adjoining areas. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions, and changes of 1 dBA to 3 dBA under quiet, controlled conditions. Changes of less than 1 dBA are usually

indiscernible. A significant impact would occur if the following traffic noise increases occur relative to the existing noise environment:

- 1.5 dBA in ambient noise environments of 65 dBA CNEL and higher
- 3 dBA in ambient noise environments of 60 to 64 dBA CNEL
- 5 dBA in ambient noise environments of less than 60 dBA CNEL

A traffic analysis was conducted by DJ&A (Appendix D). The proposed project is not expected to increase existing daily trips with implementation of the proposed project. Proposed field lighting improvements will allow existing practices to be scheduled later in the day and evening during winter months and would not result in an increase in the level or number of activities and would not generate an increase in daily traffic trips to the project site. Implementation of proposed project would not result in a traffic noise increase over existing conditions. Therefore, project-related traffic noise impacts would be **less than significant**.

Operational On-Site Noise

The proposed project would install field lighting at the baseball and softball fields, and track and field lighting with a public address (PA) system at the track and field. With the addition of field lights, the proposed project would extend evening practices within the hours of 3:30 PM to 9:00 PM for four sports/activities including softball, football, soccer, and flag football practices and other activities. The District intends to host schoolwide assemblies at the track and field with the addition of new bleachers that can accommodate the entire student body. The proposed project is anticipated to include infrastructure to allow the implementation of a future PA system. The speakers would be oriented towards the student body in the bleachers. The speakers may be used during schoolwide assemblies that would occur within the regular school operating hours. Schoolwide assemblies are not daily events and would occur periodically throughout the school year. No other changes to operations are proposed as part of the proposed project. The proposed project would not result in any changes to the number of participants, time of year (season), or number of spectators for practices and games. In addition, the proposed project would not introduce any new practices, games, or events at the fields or on-campus.

The proposed project's schoolwide assembly and practice fields operational scenarios were modeled using SoundPLAN computer software. SoundPLAN uses industry-accepted propagation algorithms based on International Organization for Standardization (ISO) and ÖAL-28 standards for outdoor sound propagation. The modeling calculations account for classical sound wave divergence (spherical spreading loss with adjustments for source directivity from point sources) plus attenuation factors due to air absorption and ground effects. Additionally, SoundPLAN provides for other correction factors, including level increases due to reflections, source directivity, and source tonality.

The scenarios modeled included assemblies and playfields events, with 1,464 in attendance at the bleacher area and PA system activity for assemblies; and 200 in attendance for playfield events assuming no PA system activity. See Appendix C for modeling inputs, results, and graphical representations of operational noise contours. SoundPLAN noise modeling estimated noise levels at the receptor locations, representing the nearest residential receptors to the project site. Based on other typical event observations the following additional modeling inputs were assumed to be reasonable:

- Schoolwide assembly 1,464 attendees (bleachers) was assumed for a cumulative 10 minutes per hour and each cheer interval to be approximately 10 seconds long.
- Four proposed future speakers, with individual announcement durations of 20 seconds, for a cumulative of 12 minutes per hour.
- On-field player activity was assumed to occur for a cumulative of 25 minutes per hour.
- On-field referee whistle activity was assumed to occur for a cumulative of 25 minutes per hour.
- The band was assumed to play a cumulative of 10 minutes per hour for schoolwide assemblies only.

As discussed above, a change of 5 dBA is readily discernible in an exterior environment and a change in 10 dBA is perceived as a doubling in sound level. Based on this and noted that campus wide assemblies would result in temporary periodic (not daily) increases in ambient noise levels, a threshold of 10 dBA above the ambient is typically applied. A project-related operational noise increase of 10 dBA above ambient noise levels for periodic events (such as assemblies) would be the threshold for a noise impact.

Table 14, *SoundPLAN Modeled Noise Levels, dBA L_{eq}*, shows ambient noise measurements and modeled operational noise levels associated with the proposed project at adjacent representative residential receptor locations. Modeled SoundPLAN scenario inputs, results and operational noise contours associated with proposed project assembly and playfield field noise on the project site and in the greater community for both modeling scenarios are shown in Appendix C.

Table 14 SoundPLAN Modeled Noise Levels, dBA L_{eq}

Receptors	Band Practice Measurement dBA L_{eq}	Modeling Scenario, dBA L_{eq}		Increase Over Ambient, dBA	
		Assembly	Playfields	Assembly	Playfields
LT-1	62.0	61.4	44.3	<1	<1
LT-2	69.2	66.3	47.9	<1	<1
LT-3	58.6	61.1	43.8	2.5	<1
LT-4	56.8	59.7	44.9	2.9	<1
LT-5	52.7	60.3	46.7	7.6	<1
LT-6	52.0	59.2	55.7	7.2	<1
R-7	58.6	59.5	43.5	0.9	<1
R-8	69.2	60.9	42.8	<1	<1
R-9	58.6	61.8	42.1	3.2	<1
R-10	52.0	54.3	38.1	2.3	<1

Source: SoundPLAN. See Appendix C for all receptor locations and detailed modeling results.

As shown in Table 14, future assemblies and playfield event noise levels range from 38.1 dBA to 66.3 dBA Leq at the nearest noise sensitive receptors to the project site. Proposed project noise levels attributable to assemblies would expose residential receptors directly north and west of the track and field to noise levels ranging between 54.3 dBA (R-10) and 66.3 dBA Leq (LT-2). Playfield noise during organized, multi-field sport events would expose residential receptors directly north and west of the track and field and auxiliary fields to noise levels ranging between 38.1 dBA (R-10) and 55.7 dBA Leq (LT-6). Table 14 also shows that future assembly and playfield would result in noise level increases of up to 7.6 dBA over ambient conditions (LT-5). Future schoolwide assemblies and organized, multi-field sport events would not result in a 10 dBA increase above ambient noise conditions at the nearest noise sensitive receptors to the project site. Furthermore, Section 15.90.040 of the Municipal Code exempts school bands, school athletic and school entertainment events from noise level standards specified in Chapter 15.90. Therefore, project-related operational noise impacts would be **less than significant**.

b) ***Would the proposed project result in the generation of excessive groundborne vibration or groundborne noise levels?***

Potential vibration impacts associated with the projects are usually related to the use of heavy construction equipment. Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. The use of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range

from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

Table 15, *Proposed Project's Vibration Levels*, summarizes vibration levels for typical construction equipment at a reference distance of 25 feet. Typical construction equipment for this project can generate vibration levels ranging up to 0.21 inches per second (in/sec) PPV at 25 feet. Vibration levels at a distance greater than 40 feet would attenuate to 0.104 in/sec PPV or less.

Table 15 Project-Related Construction Vibration Damage Levels

	Levels, PPV (in/sec)			
Equipment	**FTA Reference at 25 Feet**	**Receptor to North 45 feet**	**Receptor to West 655 feet**	**Receptor to East 40 feet**
Vibratory Roller	0.21	0.087	0.002	0.104
Hoe Ram	0.089	0.037	0.001	0.044
Large Bulldozer	0.089	0.037	0.001	0.044
Caisson Drilling	0.089	0.037	0.001	0.044
Loaded Trucks	0.076	0.031	0.001	0.038
Jackhammer	0.035	0.014	0.000	0.017
Small Bulldozer	0.003	0.001	0.000	0.001
Exceed 0.2 in/sec PPV Standard?		**No**	**No**	**No**

Source: FTA 2018. See Appendix C.

Note: Distance measurements were conducted using Google Earth (2025) from the boundary of work areas to the nearest receptors.

As shown in Table 15, the proposed construction activities would not exceed the 0.2 in/sec PPV FTA standard. In addition, the proposed project would not include any new operational vibration sources. Therefore, project-related vibration impacts would be **less than significant**.

c) ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels?***

The nearest airport to the project site, Fullerton Municipal Airport, is located approximately 4.5 miles to the southwest. The project site is located outside of 60 dBA CNEL noise contour for Fullerton Municipal Airport. Therefore, implementation of the proposed project would not

result in increased exposure of people working at or visiting the project site to aircraft noise. Therefore, **no impact** would occur.

XIV. Population and Housing

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a) ***Would the proposed project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

The proposed project would decrease school enrollment capacity by 54 students. It is expected that the students who would use the modernized building 400, as well as the improved athletic facilities, are existing residents living within the District's service boundary. The proposed project would not directly increase population growth in the area. No construction of homes or businesses is proposed, nor is the extension of roads or other off-site infrastructure required. Project implementation would not induce population growth and, therefore, **no impact** would occur.

b) ***Would the proposed project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

Project construction would be restricted to the existing campus, and no housing would be displaced or necessitate replacement housing. **No impact** would occur.

XV. Public Services

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

DISCUSSION

a) ***Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

Fire protection?

The City of La Habra contracts with the LACoFD for fire suppression and emergency medical services. The LACoFD fire station nearest to the project site is Fire Station #192 at 520 South Harbor Boulevard, approximately 0.3 mile west of the project site. Station # 191 at 850 West La Habra Boulevard, approximately 1.7 miles west, can also provide fire protection and emergency services to the project site (La Habra 2026d). The LACoFD employs over 4,700 personnel who operate out of 174 fire stations to protect a population exceeding four million residents. Their dispatchers handling 393,570 emergency calls in 2017 alone. The department utilizes a diverse

fleet, including specialized aircraft, land apparatus, and lifeguard resources to manage emergencies from the mountains to the coast (LACoFD 2018).

Construction

During the construction phase of the proposed project, there would be a temporary increase in construction workers on-site. Construction of the proposed project would be required to comply with the California Fire Codes (CFC) to ensure on-site safety during construction. The code includes standards for building and construction, requirements for emergency access, hazardous material handling, and fire protection systems. Construction of the proposed project would further implement Occupational Safety and Health Administrative (OSHA) regulations to ensure on-site safety during construction. Construction plans of the proposed project would be reviewed and inspected by the DSA to ensure all requirements are met, such as adequate emergency access to the project site during construction. The LACoFD would review project plans to confirm fire personnel accessibility, fire hydrant locations and distribution, water supply requirements for fire flow, and automatic fire sprinklers.

Therefore, project construction would not affect fire/emergency response protection services to the extent that new or physically altered fire facilities would be needed to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Therefore, construction-related impacts on fire protection would be **less than significant**.

Operation

The proposed project would modernize building 400 and provide improvements to on-campus athletic fields, including field lighting, a new restroom building, synthetic surfaces, and bleachers. As discussed in Section 2.3, the District intends to host periodic schoolwide assemblies at the track and field during regular school operating hours and would add evening sports practices. However, there are no other changes to operations; no new games or events are proposed, and the project would not increase the number of employees or participants. In fact, the project would result in a net decrease in campus enrollment capacity by 54 students. In addition, the proposed project would not result in the construction of new housing or any extension of off-site roads or utilities. The proposed project is not expected to induce substantial unplanned population growth, as it serves the existing student population within an established campus and community.

The proposed project would not alter the existing access and circulation features at the campus and project site, and such fire safety features have already been reviewed in accordance with the CFC. The proposed project would be designed to accommodate emergency access to the facility in accordance with the CFC. The LACoFD and DSA would review ensure that plans, specifications, and construction comply with access, fire, and life safety design standards established by DSA and California's building codes (Title 24 of the California Code of Regulations).

Although the proposed project may result in a minor increase in demand for fire protection services compared to existing conditions, it would not require new or substantially expanded fire protection facilities or personnel. Therefore, impacts would be **less than significant**.

Police protection?

The La Habra Police Department (LHPD) provides police protection services from its main station at 150 North Euclid Street, approximately 1.1 miles northwest of the project site. According to the City of La Habra General Plan EIR (2014), the department was authorized for 71 sworn officers and 37 nonsworn (civilian) staff based on the 2010 population of 60,239 residents. Using those figures, the 2014 EIR reported an officer-to-population ratio of approximately 1.1 sworn officers per 1,000 residents. Department staffing levels are periodically reviewed and updated through annual budget and organizational reports (La Habra 2014).

Construction

During the construction of the proposed project, construction workers would temporarily be onsite. Construction of the proposed project would maintain emergency access and emergency egress routes during project construction. Active construction areas would be fenced during the construction phase, and construction site access would be limited to authorized personnel. The storage and staging of construction equipment would be fenced and occur on the project site.

Construction of the campus already includes several design features and security measures that would reduce the opportunity for criminal activity to occur on-site. For example, during construction, equipment and tools would be locked and hidden from view, and fencing would be maintained around the perimeter of the project site. The project site also includes security lighting and fencing and gates limiting access to the campus. The construction managers would be responsible for maintaining the safety and security of the project site and would maintain a list of contractors and personnel with key access. The LHPD and DSA would ensure the site adheres to CFC to ensure on-site safety during construction, and ensure all requirements are met, such as adequate emergency access to the project site during construction. The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities that would necessitate the need for new or physically altered police protection facilities. Construction-related impacts on police protection would be **less than significant**.

OPERATION

The proposed project would modernize an existing classroom building and provide improvements to the athletic fields, including field lighting, a new restroom building, synthetic surfaces, and bleachers. As discussed in Section 2.3, the District intends to host periodic schoolwide assemblies at the track and field during school operating hours and would occur

periodically throughout the school year, and would add evening sports practices. However, there are no other changes to operations (practices, games, or events), employees, and would not increase student capacity nor enrollment at SOHS. In fact, the project would result in a net decrease in enrollment capacity by 54 students. The proposed project would not result in the construction of new housing. The proposed project is not expected to induce substantial unplanned population growth, since it serves the existing student population within the established campus and would not extend infrastructure to facilitate new development.

In addition, operation of the campus already includes several design features and security measures that would reduce the opportunity for criminal activity to occur on-site. For example, security lighting is installed throughout the campus, and fencing and gates limit access to the campus and project site. The proposed project would be designed to accommodate emergency access to the facility in accordance with the federal, State, and local regulations and would be reviewed by DSA and the LHPD for consistency. The proposed project would not result in substantial that would necessitate the need for new or physically altered police protection facilities. The proposed project would have a **less than significant** impact on police protection services during operation of the proposed project.

Schools?

The proposed project includes modernizing building 400 and providing improvements to the athletic fields, including field lighting, a new restroom building, synthetic surfaces, and bleachers at the existing SOHS. Demand for schools and population growth is largely generated by new housing developments. The proposed project would serve existing students and would not generate an increase in student capacity nor enrollment at SOHS. In fact, the project would result in a net decrease in campus enrollment capacity by 54 students. No new housing, roads, or other growth-inducing infrastructure is proposed. Therefore, the project would not induce substantial unplanned population growth, and **no impact** would occur.

Parks?

La Habra has 24 parks encompassing approximately 135.6 acres and divided into three categories based on usage: mini parks, neighborhood parks, and community parks. La Habra's five mini parks are defined as special use facilities. These parks are designed to provide passive open space with emphasis on aesthetics rather than formal recreational facilities. The City has 14 neighborhood parks within walking distance of residential homes. These parks are primarily planned for use by younger children and family groups. La Habra's five community parks serve several residential neighborhoods in proximity and have a wide range of indoor and outdoor recreation opportunities (La Habra 2014). The nearest park is Descanso Park, 0.39 mile northwest of the project site.

Typically, an increase in demand for parks is created by the development of new housing and/or population generating actions. The proposed project would retrofit existing academic related buildings, construct interim portable classrooms, and provide improvements to the athletic

fields, including field lighting and a new restroom and storage building; and would not generate new students or housing that can increase the demand for parks. The proposed project would serve the existing needs of the campus. The proposed project would not increase the use of existing parks or recreational facilities, or the need for new parks or recreational facilities. The proposed project would continue to be available to authorized community groups during weekends and outside school hours, subject to District facility use policies and the Civic Center Act. Thus, the proposed project would provide improved recreational opportunities to the school and surrounding community and reduce the demand on neighborhood parks. A **less than significant** impact on parks would occur.

Other public facilities?

The La Habra Library is the only branch of the Orange County Public Library (OCPL) in the city. The building at 221 East La Habra Boulevard is owned and maintained by the City of La Habra, and operations and funding are managed by the OCPL. The project site is located one mile southeast of the library. The La Habra Library branch offers the community books, magazines, periodicals, business materials, reference documents, computer services, a used book shop, and other information. The La Habra Library branch also hosts cultural events, lectures, book discussion groups, and teen programs (La Habra 2024). In addition, La Habra residences are able to access other Orange County Public Libraries, which provide library services, a digital library, online resources, workshops, public events, and other resources (OCPL 2026).

Typically, an increase in demand for library services is created by the development of new housing and/or population generating actions. The proposed project would retrofit existing academic related buildings, construct interim portable classrooms, and provide improvements to the athletic fields, including field lighting and a new restroom and storage building; and would not generate new students or housing that can increase the demand for libraries. The proposed project would serve the existing needs of the campus. The proposed project would not increase the use of existing library facilities or the need for new library facilities. The proposed project would not require new or physically altered library facilities. **No impact** to libraries would occur.

XVI. Recreation

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

The City of La Habra operates a network of 24 parks and recreation sites totaling over 100 acres of developed and undeveloped parkland that provide diverse recreational opportunities for residents. Major parks include La Bonita Park (approximately 22.6 acres) with baseball diamonds, courts, playgrounds, skate park and picnic areas; Esteli Park (11.3 acres) and Portola Park (10.6 acres) with sports fields and picnic facilities; Vista del Valle Park (about 30 acres) with open space and recreational amenities; and the Vista Grande Park undeveloped site (about 13.85 acres) planned for future improvements. In addition, the City's neighborhood and community parks range in size from small open spaces such as Richard's Park (0.28 acre) and Constitution Plaza (0.55 acre) to midsized facilities like El Centro-Lions Park (5 acres), Loma Norte Park (5 acres), Guadalupe Park (2.5 acres), and Oeste Park (4.9 acres). These parks offer playgrounds, picnic areas, splash zones (two seasonal splash zones at Brio Park and Oeste Park), trails, sports courts, and open play fields, and are complemented by ongoing Recreation Division programs and activities for all ages (La Habra 2026c).

The proposed project involves improvements to recreational facilities within the SOHS campus, including the installation of field lighting, synthetic track and turf field, sports amenities, a restroom building, and a PA system. The proposed project would not induce population growth

nor increase student enrollment or capacity on campus. Additionally, the proposed project includes enhanced sports facilities, which would be available to authorized community groups during weekends and outside school hours, subject to District facility use policies and the Civic Center Act. Therefore, the proposed project would not generate an increased demand for existing neighborhood, regional facilities or other recreational facilities and would not result in substantial physical deterioration of such facilities nor cause deterioration to accelerate. The proposed project would have a **less than significant** impact on recreation.

b) ***Does the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

The proposed project is located on the existing SOHS campus. The proposed project would serve SOHS's existing student population and would decrease the school's enrollment by 54 students. Therefore, the proposed project would not include the development of recreational facilities nor require the expansion of existing recreational facilities. A **less than significant** impact would occur.

XVII. Transportation

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?***

Construction

Construction of the project would include large construction equipment, transportation of equipment to and from the project site, and worker vehicles. However, construction traffic would be temporary, and all construction activity and staging areas would be on the project site. Therefore, the proposed project would not obstruct traffic lanes or have any long-term effects on the circulation system.

Operation

The proposed project would consist of modernizing of the northern half of the existing building 400 and track and field improvements, which would include installing field lighting and constructing a restroom building. As discussed in Section 2.3.1, *Proposed Land Use*, SOHS's enrollment capacity would decrease by 54 students. In addition, with the installation of field lights, the proposed project would add evening practices and other activities between the hours of 3:30 pm and 9:00 pm. There would be no other changes to operations (practices, games, or events), employees, participants, time of year (season), or number of spectators. As concluded in the Traffic Circulation Memo (Appendix D), the proposed project is expected to result in a reduction in AM and PM peak hour trips, and in the number of daily trips traveling to and from the school campus.

The forecast change in trip generation for SOHS under with project conditions is estimated using rates published in the ITE Trip Generation Manual 12th Edition. The trips are based on rates for a high school (ITE Code 525). As previously mentioned, the proposed project is anticipated to reduce the student capacity at SOHS by 54 students, resulting in a new capacity of 2,619 students. Table 16, *Trip Generation for Sonora High School*, presents the trip generation reduction forecast for the project weekday daily period and the AM and PM peak hours. The trip generation reduction was used in this study to allocate the reduction in project-generated traffic volumes for the daily period to the adjacent street network.

Table 16 Trip Generation for Sonora High School

Land Use and Time Period	Students	Trip Generation Rate	Distribution		Trips		Total
			Inbound	Outbound	Inbound	Outbound	
Existing Condition							
High School – Daily	2,673	.14 trips / student	50%	50%	2,593	2,593	5,186
High School – AM Peak	2,673	.14 trips / student	68%	32%	945	445	1,390
High School – PM Peak	2,673	.14 trips / student	48%	52%	192	209	401
With Project Condition							
High School – Daily	2,619	.14 trips / student	50%	50%	2,540	2,541	5,081
High School – AM Peak	2,619	.14 trips / student	68%	32%	926	436	1,362
High School – PM Peak	2,619	.14 trips / student	48%	52%	189	204	393
Net Change							
High School – Daily	-54	-	-	-	-53	-52	-105
High School – AM Peak	-54	-	-	-	-19	-9	-28
High School – PM Peak	-54	-	-	-	-3	-5	-8

Source: Appendix D.

Additionally, the average daily trips (ADT) volumes were estimated using a 1% annual growth rate from the 2026 With Project scenario ADT volumes for five roadway segments surrounding the project site. These included the following roadway segments:

- S Palm Street north of E Lambert Road
- S Palm Street south of E La Habra Boulevard
- E La Habra Boulevard east of N Palm Street
- N Palm Street north of E La Habra Boulevard
- E La Habra Boulevard west of N Palm Street

As seen in Table 17, *Estimated Roadway ADT, by Roadway and Scenario*, the ADT volumes for each roadway segment decrease in the 2026 With Project and 2027 With Project scenarios, as

compared to the 2026 No Project and 2027 No Project scenarios, which can be explained by the decrease in SOHS's enrollment capacity as a result of the proposed project.

Table 17 Estimated Roadway Average Daily Traffic Volumes

Roadway	Existing 2026 ADT	2027 No Project	2026 With Project	2027 With Project
S Palm Street north of E Lambert Road	10,261	10,364	10,209	10,312
S Palm Street south of E La Habra Boulevard	10,486	10,591	10,433	10,538
E La Habra Boulevard east of N Palm Street	23,587	23,823	23,570	23,806
N Palm Street north of E La Habra Boulevard	8,642	8,728	8,624	8,710
E La Habra Boulevard west of N Palm Street	25,609	25,865	25,591	25,847

Source: Appendix D.

Transit, Roadway, Bicycle, and Pedestrian Facilities

The proposed project would decrease SOHS's student enrollment by 54 students. As such, use of transit, such as Orange County Transportation Authority operates bus routes 129, 143, and 37 would decrease. Additionally, the proposed project would not increase pedestrian and bicycle circulation or interfere with pedestrian or bicycle facilities because construction and operation of the proposed project would remain within the boundaries of the project site.

The Traffic Circulation Memo concluded that existing project driveways provide sufficient sight distance; no significant horizontal curves are proposed along the roadways in the vicinity of the project driveway locations; and that modifications to driveway sight distances are recommended as part of this analysis (Appendix D).

Regarding driveway length, the existing site access driveways are designed to serve the school's typical peak AM and PM hour traffic volumes and turning movements. Since the proposed project would generate a reduction in AM and PM peak hour trips, driveway congestion and queues would not be significantly impacted and no modifications to existing driveway lengths are recommended (Appendix D).

The Traffic Circulation Memo also concluded that per City of La Habra standards, the existing project driveways are sufficiently distanced from adjacent intersections and from each other. Additionally, the existing site access driveways are designed to serve the school's typical peak AM and PM hour traffic volumes and turning movements. Since the proposed project would not generate an increase in AM and PM peak hour trips, there is no need to change the configuration of right turn lanes.

Conclusion

The proposed project would decrease the student enrollment capacity of SOHS. As such, the proposed project would decrease the number of vehicle trips generated and the number of ADTs along the five roadway segments surrounding the project site. Since the proposed project would decrease the volume of AM and PM peak hour trips, site circulation would not be significantly impacted, and no improvements to the existing site access driveways are recommended based on this analysis. In addition, the proposed project would not significantly impact the use, access, or circulation of transit, bicycle, and pedestrian facilities because the project proposes to improve pedestrian and bicycle use with new sidewalks and bicycle storage facilities. Therefore, impacts would be **less than significant**.

b) ***Would the proposed project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?***

On September 27, 2013, SB 743 started a process that fundamentally changed transportation impact analyses as part of CEQA compliance. SB 743 eliminated auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts under CEQA. As part of the current CEQA Guidelines, the criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" is used (Public Resources Code Section 21099(b)(1)). Pursuant to SB 743, the California Natural Resources Agency adopted revisions to the CEQA Guidelines on December 28, 2018. CEQA Guidelines Section 15064.3 describes how transportation impacts are to be analyzed after SB 743. Metrics related to "vehicle miles traveled" (VMT) were required beginning July 1, 2020, to evaluate the significance of transportation impacts under CEQA for development projects, land use plans, and transportation infrastructure projects. State courts ruled that under the Public Resources Code Section 21099, subdivision (b)(2), "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment" under CEQA, except for roadway capacity projects.

As stated in Section 2.3.1, *Proposed Land Use*, with the removal of two classrooms, the proposed project would result in a decrease in campus enrollment capacity by 54 students for a new enrollment capacity of 2,619 students. Additionally, as seen in Table 16, the net change in trip generation would be negative. As such, the proposed project would not generate new vehicle trips since the project decreases student capacity at SOHS, nor would the field improvements result in new or additional activities occurring at the campus that would result in an increase in vehicle trips. Because there is no increase in trips forecast to be generated by the project, the project is eligible to be screened out from the need for full project level VMT analysis. Therefore, impacts would be **less than significant**.

c) *Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

See Section 2.2.2, *Parking and Access*, for a description of the existing on-campus parking and access.

As discussed in Section 2.3.1, *Proposed Land Uses*, the proposed project would not include any off-site improvements or improvements to internal vehicle circulation. As stated in Section XVII(a), existing driveways provide adequate sight distance, and nearby roadway geometry does not present visibility constraints. The site access driveways are already designed to accommodate the school's typical AM and PM peak-hour traffic volumes and turning movements. Because the project would reduce rather than increase peak-hour trips, driveway congestion, queues, and required driveway lengths would not be significantly affected. Driveway spacing and right-turn lane configurations meet City of La Habra standards, and no access modifications are required to accommodate the proposed project (Appendix D). Additionally, the proposed project would continue to be used for educational purposes and would not include any incompatible uses.

Therefore, impacts would be **less than significant**.

d) *Would the proposed project result in inadequate emergency access?*

As stated in Section 2.2.2, *Parking and Access*, vehicular and emergency access to the campus and project site is provided by three combined ingress-egress driveways along S Palm Street. The campus also includes an internal circulation connection between the two existing parking lots that help provide vehicular and emergency access to the project site from S Palm Street. The proposed project would be located on the western side of the campus away from the ingress-egress driveways along S Palm Street. The proposed project would be located within the boundaries of the project site, including the existing SOHS track and field, baseball and softball fields, animal grazing area, and building 400. The storage and staging of construction equipment would occur within the boundaries of the project site.

The proposed project would not include any off-site improvements or improvements to internal vehicle circulation that would impact emergency access to the project site or the campus. However, to ensure adequate emergency and fire access, project improvements would be designed in compliance with applicable DSA and CFC standards (e.g., minimum lane width and turning radius). The DSA would review plans, specifications, and construction to confirm compliance with fire and life safety standards, including roadway requirements for emergency vehicles. In addition, existing fire lanes and driveways to the campus have already been designed to meet applicable DSA and CFC standards and would continue to provide adequate access to all areas of the campus. Therefore, impacts would be **less than significant**.

XVIII. Tribal Cultural Resources

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☐

DISCUSSION

a) ***Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

As discussed under Section V(a), the project site is not eligible to be listed on the California Register of Historical Resources. As discussed under Section V(b), the Cultural Resources Compliance Report found no recorded cultural resources on the project site and identified only one previously recorded resource within one mile, originally recorded in 1979 as a suspected prehistoric site (i.e. Native American site). A follow-up investigation in 1980 determined that the materials present were not Native American artifacts, and the site was not confirmed as a cultural resource. Additionally, no known or registered buildings or other historical resources related to tribal cultural resources, as defined by Section 21074 have been recorded at the project site have been recorded in the California Register of Historical Resources or in a local register (OHP 2026; Appendix B). Therefore, impacts would be **less than significant**.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

A NAHC Sacred Lands File search (SLF) was conducted and yielded a positive result, which indicates that there is the potential or known Native American cultural resources, including scared sites, within the project area (Appendix E). The proposed project has the potential to disturb subsurface deposits possessing traditional or cultural significance to Native American or other descendant communities. Accordingly, Assembly Bill 52 (AB 52) tribal consultation was conducted as part of the proposed project.

AB 52 requires meaningful consultation with California Native American tribes on potential impacts to tribal cultural resources, as defined in PRC Section 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources. As part of the AB 52 process, Native American tribes must submit a written request to the District (lead agency) to be notified of projects within their traditionally and culturally affiliated area. The District must then provide written, formal notification to those tribes, and the tribe must respond to the lead agency within 30 days of receiving this notification if they want to engage in consultation on the project. When these steps are completed, the District must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either 1): the parties agree to mitigation

measures to avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

Pursuant to AB 52, the Fullerton Joint Union High School District invited a total of 15 tribes to consult based on the District's AB 52 list, which includes the Agua Caliente Band of Cahuilla Indians, Gabrieleno Band of Mission Indians - Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino /Tongva Nation, Gabrielino-Tongva Tribe, Juaneno Band of Mission Indians Acjachemen Nation – Belardes, Juaneno Band of Mission Indians, La Jolla Band of Luiseno Indians, Pala Band of Mission Indians, Pauma Band of Luiseno Indians, Pechanga Band of Luiseno Indians, Pechanga Band of Mission Indians, Rincon Band of Luiseno Indians, San Fernando Band of Mission Indians, San Luis Rey Band of Mission Indians, and Soboba Band of Luiseno. The invitation letters were sent to tribes on January 23, 2026, via mail to the available addresses, prior to the NHAC SLF positive result. Tribal consultation pursuant to AB 52 concluded on February 22, 2026, for the proposed project.

On January 28, 2026, the District received a request for consultation from the Juaneno Band of Mission Indians Acjachemen Nation 84A regarding the proposed project. The Juaneno Band of Mission Indians Acjachemen Nation 84A provided mitigation measures to be incorporated into the IS/MND that address the inadvertent discovery of tribal cultural resources and to minimize the potential impacts to tribal cultural resources. The mitigation measures are incorporated as Mitigation Measures TCR-ACH-1 through TCR-ACH-5, below.

In addition, on February 2, 2026, the District received a request for consultation from the Gabrieleno Band of Mission Indians - Kizh Nation regarding the proposed project. The Gabrieleno Band of Mission Indians - Kizh Nation provided mitigation measures to be incorporated into the IS/MND that address the inadvertent discovery of tribal cultural resources and to minimize the potential impacts to tribal cultural resources. The mitigation measures are incorporated as Mitigation Measure TCR-KIZH-1 through TCR-KIZH-3, below.

Due to the potential of unearthing TCRs and the Juaneno Band of Mission Indians Acjachemen Nation 84A's and the Gabrieleno Band of Mission Indians - Kizh Nation's recommendations for worker training, a tribal monitor during ground disturbing activities, TCR discovery and treatment, Mitigation Measures TCR-ACH-1 through TCR-ACH-5 and Mitigation Measures TCR-KIZH-1 through TCR-KIZH-3 would be implemented to ensure that impacts related to TCRs are less than significant. With the incorporation of Mitigation Measures TCR-ACH-1 through TCR-ACH-5 and Mitigation Measures TCR-KIZH-1 through TCR-KIZH-3, and CUL-1, impacts to TCRs would be **less than significant**.

Mitigation Measure TCR-ACH-1: Retention of Qualified Archaeologist and Worker Training. Prior to initiating any ground-disturbing activities for the proposed project, the District shall ensure that a qualified archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Secretary of the Interior 2008) has been retained by the District to conduct any required training, evaluation, or treatment of archaeological resources that might be encountered during implementation of the project.

As part of this, prior to the start of grading, the qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel must be informed of the types of archaeological resources that may be encountered (both prehistoric and historical), and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The District must ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

Mitigation Measure TCR-ACH-2: Native American Monitoring. A Native American monitor from the tribe or tribes identified as a consulting party for the project under AB 52 shall be present during all earth-moving construction activities. The Native American monitor shall be given the opportunity to participate in the cultural resource sensitivity training described in the preceding condition of approval. At least 30 days prior to ground disturbing activities for the project site and any off-site improvements, a Native American Monitoring Agreement (Monitoring Agreement) shall be developed between the District and the consulting party. The Monitoring Agreement shall pertain to prehistoric archaeological resources and Tribal Cultural Resources, respectively, and shall identify any monitoring requirements and treatment of cultural resources to meet the requirements of the Tribal representative. The Monitoring Agreement shall also address communication protocols in the event of an unanticipated discovery of cultural materials, and the roles, responsibilities, and authorities of the Native American Monitor. The Monitoring Agreement shall also detail the protocols for treatment and final disposition of any Native American cultural resources, sacred sites, and human remains discovered on the site that the Native American Monitor shall implement in consultation and coordination with the Native American Most Likely Descendant, as identified by the NAHC. In accordance with the condition of approval below, discovery and treatment of human remains shall comply with State Health and Safety Code Section 7050.5 and Public Resources Code (PRC) Section 5097.98.

Mitigation Measure TCR-ACH-3: Archaeological Resource and/or Tribal Cultural Resource Discovery and Treatment. In the event of the unanticipated discovery of archaeological or other cultural resources, whether discovered through Native American monitoring or not, all work activities in the area (within approximately 100 feet of the

discovery) shall be halted or redirected until the discovery can be evaluated by a qualified archaeologist. Construction shall not resume until a qualified archaeologist has conferred with the District and, in the case of prehistoric archaeological resources and tribal cultural resources, the Native American monitor, on the significance of the resource. If it is determined that the discovered archaeological resource and/or tribal cultural resource is significant, avoidance and preservation in place shall be the preferred manner of mitigation, pursuant to PRC Section 21083.2(b) and Section 21084.3. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Treatment Plan shall be prepared and implemented by a qualified archaeologist, in consultation with the District, that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource or cultural information in the event of a tribal cultural resource. The District shall also consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered. Any evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards.

Mitigation Measure TCR-ACH-4: Treatment of Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are found, the Orange County Sheriff's Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains (100 feet or as determined by the project archaeologist) shall occur until the procedures set forth in this measure have been implemented. If the County Coroner determines that the remains are, or are believed to be, Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Mitigation Measure TCR-ACH-5: Native American Monitor. The District shall retain a Native American Monitor from or approved by the Juaneño Band of Mission Indians – Acjachemen Nation Tribal Council.

a. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

b. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

c. Government to Government consultation shall be conducted prior to approval of ground disturbing activities and maintained throughout project implementation.

d. Construction coordination meeting shall be conducted prior to start of ground disturbing work (grading, trenching, or excavation) with Qualified Archaeologist, Construction Contractor, Juaneño Band of Mission Indians Acjachemen Nation (JBMIAN) Tribal Representative.

e. Tribal Cultural Resource Monitoring shall be conducted during all initial ground-disturbing activities until both the Archaeologist and Tribal Monitor determine monitoring is no longer needed. During construction, cultural materials or features are discovered. Construction contractor, Archaeologist, JBMIAN Tribal Monitor and Lead Agency shall submit a discovery report documenting find, treatment measures, and confirmation that work did not resume until treatment was completed in consultation with JBMIAN. If human remains are encountered during construction, the construction contractor, Orange County Sheriff's Coroner, NAHC, MLD and JBMIAN shall follow the following: the coroner shall provide written documentation, the NAHC will be notified, and there shall be confirmation of respectful treatment/reburial as directed by the MLD and Tribe.

f. Qualified Archaeologist and/or JBMIAN Tribal Representative shall submit documentation of recovered materials, correspondence confirming tribal disposition decision (e.g., reburial, return, or other treatment) during and following construction, if artifacts are recovered.

g. Qualified Archaeologist, JBMIAN Tribal Monitor, and/or Lead Agency shall submit a Final Monitoring and Mitigation Summary Report; written confirmation of JBMIAN review and acceptance; copies of confidentiality compliance upon completion of ground-disturbing activities.

h. Lead Agency, Construction Contractor and or JBMIAN Representative shall submit records of coordination and confirmation that tribal ceremonies or blessings were accommodated safely and respectfully prior to and/or during construction, as requested by the Tribe.

Mitigation Measure TCR-KIZH-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities.

a. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

b. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

d. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

Mitigation Measure TCR-KIZH-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial).

a. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

Mitigation Measure TCR-KIZH-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects.

a. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

b. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.

c. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

d. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

e. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

XIX. Utilities and Service Systems

Would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

DISCUSSION

a) ***Would the proposed project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

The proposed project would modernize a portion of the classroom building 400 and install field lighting at the baseball and softball fields, as well as bleachers, field lighting, a new restroom building, and a public address (PA) system at the track and field area, along with other related improvements at the SOHS campus. The proposed project would not increase student enrollment capacity but would reduce enrollment capacity by 54 students. As discussed in Section 2.3, *Project Characteristics*, schoolwide assemblies would be the only new event, and the proposed project would not result in any changes to the number of participants, time of year (season), or number of spectators.

Water

The new restroom building would serve existing students and spectators already occurring on campus. In addition, schoolwide assemblies would occur during the school day, and students would utilize restrooms regardless of the schoolwide assemblies. Therefore, the proposed project is not expected to increase water demand onsite.

Water is currently provided to the campus and project site by the City of La Habra (La Habra 2021). Potable water would be provided to the new restroom building through connections to the existing water mains. The proposed water system improvements would be designed and constructed in accordance with the CBC and CALGreen requirements, such as CALGreen Sections 5.303, Indoor Water Use, and 5.304, Outdoor Water Use. As further discussed under Section XIX(b), the City has sufficient water capacity to serve the proposed project. The proposed project would not require the construction of new or expanded water facilities that could cause significant effects. Impacts would be **less than significant**.

Wastewater

The new restroom building would serve existing students, practices, and games already occurring on campus, notwithstanding the extended evening practices. In addition, schoolwide assemblies would occur during the school day, and students would utilize restrooms regardless of the schoolwide assemblies. Therefore, the proposed project is not expected to increase wastewater generated on-site.

Wastewater in the City and project site is conveyed for treatment to the Orange County Sanitation District (OC SAN) for treatment and disposal (La Habra 2021). OC SAN has a system of gravity flow sewers, pump stations, and pressurized sewers to convey wastewater to two treatment plants: Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2). Plant No. 1 has a primary and secondary capacity of 208 and 182 million gallons per day (MGD), respectively; Plant No. 2 has a primary and secondary capacity of 168 and 150 MGD, respectively (OC SAN 2022). The OC SAN had a total 2023-24 average daily flow of 192 MGD of wastewater (OC SAN 2025). As further discussed in Section XIX(c), the proposed project would not substantially increase wastewater. Wastewater generated by the proposed project would be conveyed to the existing sewer lines in the public right-of-way. Therefore, the proposed project

would not require the construction of new or expanded wastewater facilities that could cause significant environmental effects. Impacts would be **less than significant**.

Stormwater Drainage

As substantiated in Section X(c), impacts would be **less than significant**, and no mitigation measures are necessary.

Electrical Power

Electricity is provided by Southern California Edison (SCE 2025). The proposed project would require utility trenching and connect to existing electric power infrastructure for operation. The proposed project would result in an increase in electricity consumption that would be adequately served by the existing infrastructure. The proposed project would be required to comply with energy efficiency standards set forth by the CBC and CALGreen requirements. Implementation of the proposed project would not result in the relocation or construction of new or expanded electricity facilities that could cause significant environmental impacts. Therefore, impacts would be **less than significant**.

Natural Gas

Natural gas service is provided by the Southern California Gas Company. The proposed project would not require the use of natural gas during construction. The modernized science classroom would alter the existing gas lines due to the modernization, and would continue to utilize natural gas in the science classroom for educational purposes. No increases in the use of natural gas are expected to occur. Therefore, **no impact** would occur.

Telecommunications

The proposed project would not require additional telecommunications facilities demand. The proposed project would not require off-site construction or relocation of utilities, and therefore **no impact** would occur.

b) ***Would the proposed project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

The City of La Habra Urban Water Management Plan (UWMP) concludes that sufficient water supplies are available to meet projected demands through 2045 under normal, single-dry, and multiple-dry year conditions (La Habra 2021). The UWMP indicates that the City's long-term water supply portfolio is expected to consist primarily of imported water, supplemented by groundwater production. By 2045, projected supplies are estimated to include approximately 71 percent imported water provided through the California Domestic Water Company (CWDC), about 27 percent groundwater, and a small remaining portion from other imported sources. In

addition, the City has a purchase agreement with Metropolitan Water District of Southern California (MET) that allows the City to purchase significantly more imported water, should the need arise.

As discussed in Section XIX(a), the proposed project is not expected to generate an substantial increase in water demand, with increases being negligible. The proposed water system improvements would be designed and constructed in accordance with the CBC and CALGreen requirements, such as Sections 5.303, Indoor Water Use, and 5.304, Outdoor Water Use. Since the project would not create an increase in water demand, the City contains adequate water supplies to meet the water demands of the proposed project, and the City during normal, dry, and multiple dry years, and impacts would be **less than significant**.

c) ***Would the proposed project result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

Wastewater generated at the campus is conveyed through the local sewer system to the OC San regional wastewater system for treatment at No. 1 in Fountain Valley and No. 2 in Huntington Beach. Plant No. 1 has a primary and secondary capacity of 208 and 182 MGD, respectively, and Plant No. 2 has a primary and secondary capacity of 168 and 150 MGD, respectively (OC SAN 2022). The OC SAN has a total 2023-24 average daily flow of 192 MGD of wastewater, with a total of 376 MGD primary treatment capacity at Plant No. 1 and Plant No. 2 (OC SAN 2025). Thus, there is an approximate 184 MGD excess capacity at OC SAN.

As discussed in Section XIX(a), the proposed project is not expected to increase wastewater generated on-site, and any increases in wastewater would be negligible. As such, OC SAN has adequate capacity to serve the proposed project in addition to the existing commitments. Therefore, impacts would be **less than significant**.

d) ***Would the proposed project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

During construction the proposed project would generate demolition debris from the modernization of building 400. Construction solid waste generation would be minimal, since the construction would not require the demolition of entire buildings. However, during modernization of building 400, internal building debris would be created and waste would be generated from site preparation of the existing athletic fields. In accordance with CALGreen Section 5.408, Construction Waste Reduction, Disposal, and Recycling, at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations would be recycled and/or salvaged for reuse.

The proposed project would not increase student capacity nor enrollment at SOHS, and schoolwide assemblies would be the only new event on campus which occurs during the school

day. The proposed project's operational activities are not expected to generate increases in solid waste, and any increases in solid waste would be negligible.

Solid waste generated by the project site would be disposed of in landfills within Orange County, which include the Frank R. Bowerman Landfill and Olinda Alpha Landfill with remaining capacities of 160,896,082 cubic yards and 17,500,000 cubic yards, respectively (CalRecycle 2026). In addition, the proposed project's negligible increase in solid waste production would be within the remaining capacity of the area landfills. The proposed project would not adversely impact landfill capacity or impair attainment of solid waste reduction goals, and impacts would be **less than significant**.

e) ***Would the proposed project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

The District would continue to comply with federal, state, and local statutes and regulations related to solid waste, such as the California Integrated Waste Management Act and local recycling and waste programs. As discussed in Section XIX(d), the proposed project would generate minimal solid waste during construction, as the proposed project would not create demolition debris from demolishing entire buildings, and solid waste from operational uses would be a negligible increase. The District and its construction contractor would continue to comply with all applicable laws and regulations and make every effort to reuse and/or recycle the construction debris that would otherwise be taken to a landfill. CALGreen Section 5.408, Construction Waste Reduction, Disposal, and Recycling, requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Therefore, the impacts would be **less than significant**.

XX. Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

DISCUSSION

a) *Would the proposed project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The project site is within an urbanized area in the City of La Habra and is developed with the existing SOHS academic related buildings, athletic fields, and an existing animal grazing area. According to Figure 7-6, Wildfire Hazard Severity Zones, in the La Habra General Plan, the project site and the surrounding area are not within a very high fire hazard severity zone (FHSZ) (La Habra 2024). The closest very high FHSZ is approximately 1.8 miles southwest of the project site while the closest State Responsibility Area is approximately 1.2 miles north of the project site.

According to the City of La Habra's General Plan, the City of La Habra maintains the La Habra Emergency Response Plan (ERP) and the La Habra Hazard Mitigation Plan (HMP) (La Habra 2024). Typical of most emergency response plans, the City of La Habra ERP establishes the City's operational framework for responding to emergencies and disasters, defining command structure, roles and responsibilities, communication protocols, resource coordination, and incident management procedures used during and immediately after an event to protect life, property, and public safety. In contrast, the La Habra HMP is a long-range planning document

that identifies natural and human-caused hazards facing the community, evaluates vulnerability and risk, and establishes mitigation goals, policies, and projects intended to reduce or eliminate long-term damage to people, infrastructure, and property before disasters occur (La Habra 2026e).

Additionally, according to Figure 7-11, Potential Evacuation Routes, in the City's General Plan, the nearest potential evacuation route is located along E La Habra Boulevard which is 0.16 mile north of the project site (La Habra 2024).

The proposed project would not physically impede the circulation network and roadways surrounding the project site or potential evacuation routes. The project would be limited to the project site and designed in accordance with the CBC and CFC, and the project design plans would be reviewed by the DSA. Fire suppression equipment specific to construction would be maintained on-site, in accordance with DSA, CBC, and CFC requirements. Additionally, project construction would comply with applicable existing regulations, safety standards, and, where applicable, manufacturer's specifications for the proper maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts would be **less than significant**.

b) ***Would the proposed project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

The project site is located within a fully urbanized area of the City of La Habra and is developed with the existing SOHS academic related buildings, athletic fields, and animal grazing area. primarily flat with a slight slope east to west. According to the City General Plan, Santa Ana winds may contribute to the sparking and spreading of wildfires in the City and surrounding areas. However, the project site and surrounding area are not within a very high FHSZ (La Habra 2024).

In addition, the proposed project would be designed in accordance with the CBC and CFC. Project design plans would also be reviewed by the DSA and LA County Fire Department. Fire suppression equipment specific to construction would be maintained on site. Additionally, project construction would comply with applicable existing regulations, safety standards, and, where applicable, manufacturer's specifications for the proper maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. Therefore, the proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors. Impacts would be **less than significant**.

c) ***Would the proposed project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other***

utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project site is in an urban area and is served by existing utility infrastructure, including water and power. Development of the proposed project would require new utility hook-ups to the existing utilities in the project site area. All utility lines would be underground. The proposed project would be designed and constructed in accordance with the CBC and the CFC. These project features would not exacerbate fire risk. Development of the proposed project would not require the installation of roads, fuel breaks, or emergency water sources. Therefore, the proposed project does not include the installation or maintenance of infrastructure that could exacerbate fire risk or result in temporary or ongoing impacts to the environment. Impacts would be **less than significant**.

d) ***Would the proposed project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

The project site and the surrounding area are not within a very high FHSZ (La Habra 2024a). As discussed in Section X, *Hydrology and Water Quality*, the project site is not within a FEMA-designated 100-year flood zone, and there are no nearby water bodies, streams, or other conditions that would result in flooding in the project site (FEMA 2026). As discussed in Section VII, *Geology and Soils*, the project site has a very low landslide potential, and the nearest landslide zone is 1.3 miles southwest of the project site (DOC 2026d).

Additionally, the project site is primarily flat with a slight slope east to west. The project site has a low risk of post-fire slope instability or drainage changes. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. A **less than significant** impact would occur.

XXI. Mandatory Findings of Significance

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

DISCUSSION

a) ***Does the proposed project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

As discussed in Sections IV, Biological Resources; V, Cultural Resources; VII, Geology and Soils; and XVIII, Tribal Cultural Resources, with the incorporation of mitigation measures the proposed project would result in less than significant impacts to biological resources (including nesting birds), paleontological resources, and cultural and tribal cultural resources. As discussed in Section IV, Biological Resources, the proposed project would remove four trees, nesting birds have the potential to occur on the project site, and construction activities may impact the species if they are present on-site. Impacts to nesting birds (avian species) would be less than significant with the implementation of Mitigation Measures BIO-1.

As discussed under Sections V, VII, and XVIII, the project site has been previously disturbed by the existing campus and is within an urbanized area of the City of La Habra. Although the project site received a positive SLF result, since the project site has been previously disturbed, it is unlikely that buried TCR, archaeological and paleontological resources would be encountered. Nevertheless, Mitigation Measures CUL-1, GEO-1, and TCR-ACH-1 through TCR-ACH-5 and TCR-KIZH-1 through TCR-KIZH-3 include processes to follow in the unlikely event that TCR, archaeological or paleontological resources are encountered. With incorporation of Mitigation Measures CUL-1, GEO-1, and TCR-ACH-1 through TCR-ACH-5 and TCR-KIZH-1 through TCR-KIZH-3 impacts to TCR, paleontological and archaeological resources would be less than significant.

With identified mitigation measures, the proposed project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal nor eliminate important examples of the major periods of California history or prehistory. A less than significant impact would occur with the incorporation of mitigation measures.

b) ***Does the proposed project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)***

The potential for cumulative impacts occurs when the independent impacts of a given project are combined with the impacts of related projects in proximity to the project site that would create impacts that are greater than those of the project alone. The proposed project is part of the Districts implementation of its 2024 Facilities Master Plan with the approval of the Districts bond in November 2024. The FMP assesses existing facility conditions, community needs, and recommends improvements across the District's campuses. As a top priority, the District proposes to install sports field lighting at the six high schools (Buena Park High School [HS], FUHS, La Habra HS, Sonora HS, Sunny Hill HS, and Troy HS) and install bleachers and PA systems at Sonora HS, Sunny Hill HS, and Troy HS. The need for the field lighting is prompted by the passage of SB 328, which requires high schools to start no earlier than 8:30 am. The later start

affects sports activities unless the athletic fields and courts are lit for evening use. Further, the bleachers at the three campuses are needed so that the District can host schoolwide assemblies; and additional campus improvements at SOHS, Troy High School, and Sunny Hills High School. Fullerton Union HS is the closest District project at approximately 3.5 miles east of the project site.

The projects at Fullerton Union HS, SOHS, and Sunny Hills High School would occur in one or multiple phases and may overlap. However, construction of each project will be executed individually and on different construction schedules. All construction equipment and activities will occur within the boundaries of each campus and will not extend to the other campuses. The proposed project and the other projects within the district do not include subterranean levels and do not include extensive earthwork. Given the distance between the campuses and construction timeline, the construction of the proposed project will not combine with the other projects to create a cumulative impact during construction. Similar to the proposed project, the other proposed District projects will serve their local community and not introduce new events/sports.

As discussed previously in this IS/MND, the proposed project would have no impact, a less than significant impact, or a less than significant impact with mitigation measures to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Similar to the proposed project, each District project would be required to conduct project specific analysis. Therefore, the proposed project will not combine with the other projects to create a cumulative impact during operation; and all impacts are individually limited and would not result in any cumulatively significant impact. Impacts would be less than significant, and no mitigation measures are required.

c) ***Does the proposed project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?***

The proposed project would comply with applicable local, state, and federal laws governing general welfare and environmental protection. The implementation of required mitigation measures specified in this IS/MND would reduce impacts to less than significant. The proposed project would not directly nor indirectly, result in environmental effects that could cause substantial adverse effects on human beings. A **less than significant** impact would occur.

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APPENDIX A AIR QUALITY, ENERGY, AND GREENHOUSE GASES

APPENDIX

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1. AIR QUALITY AND GREENHOUSE GAS BACKGROUND AND MODELING DATA

1.1 AIR QUALITY

1.1.1 Air Quality Regulatory Setting

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (South Coast AQMD). However, South Coast AQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, *Ambient Air Quality Standards for Criteria Pollutants*, these pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m3	150 µg/m3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4,6]	Annual Arithmetic Mean	12 µg/m3	9 µg/m3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m3	

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Lead (Pb)	30-Day Average	1.5 µg/m3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m3	
	Rolling 3-Month Average	*	0.15 µg/m3	
Sulfates (SO_4)[5]	24 hours	25 µg/m3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2024a.

Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

6 On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m^3 to 9 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary), secondary annual $PM_{2.5}$ standard, and PM_{10} standards (primary and secondary) were retained

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources and include CO, VOC, NO_2, SO_X, PM_{10}, $PM_{2.5}$, and Pb. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_X) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; US EPA 2025a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2025a).

Volatile Organic Compounds (VOC) are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3, South Coast AQMD has established a significance threshold (South Coast AQMD 2023). The health effects for ozone are described later in this section.

Nitrogen Oxides (NO_X) are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (South Coast AQMD 2005; USEPA 2025a). The SoCAB is designated in attainment (maintenance) under the National AAQS and attainment under the California AAQS (CARB 2025a).[1]

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; USEPA 2025a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2025a).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤0.01 millimeter). Inhalable fine particles, or $PM_{2.5}$, have an

[1] The CA-60 near-road portion of San Bernardino, Riverside and Los Angeles Counties has recently been redesignated as an attainment area based on data collected between 2018 and 2020 (South Coast AQMD 2022).

aerodynamic diameter of 2.5 microns or less (i.e., ≤0.002.5 millimeter). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (South Coast AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.0001 millimeter) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and the California Air Resources Board (CARB) have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 2025b). Particulate matter can also cause environmental effects such as visibility impairment,[2] environmental damage,[3] and aesthetic damage[4] (South Coast AQMD 2005; USEPA 2025a). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2025a).[5]

Ozone (O_3) is a key ingredient of "smog" and is a gas that is formed when VOCs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast

[2] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

[3] Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

[4] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

[5] CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

AQMD 2005; USEPA 2025a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2025a).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2018). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[6] As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2025a). However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's State Implementation Plan (SIP) revision was submitted to the EPA for approval. Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the proposed project.

Table 2, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

[6] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

Table 2 Criteria Air Pollutant Health Effects Summary

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	▪ Chest pain in heart patients ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO_2)	▪ Increased response to allergens ▪ Aggravation of respiratory illness	Same as carbon monoxide sources
Particulate Matter (PM_{10} and $PM_{2.5}$)	▪ Hospitalizations for worsened heart diseases ▪ Emergency room visits for asthma ▪ Premature death	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO_2)	▪ Aggravation of respiratory disease (e.g., asthma and emphysema) ▪ Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	▪ Behavioral and learning disabilities in children ▪ Nervous system impairment	Contaminated soil

Source: CARB 2025c.

Toxic Air Contaminants

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

AIR QUALITY MANAGEMENT PLANNING

The South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2022 AQMP

South Coast AQMD adopted the 2022 AQMP on December 2, 2022, which serves as an update to the 2017 AQMP. On October 1, 2015, the EPA strengthened the National AAQS for ground-level ozone, lowering the primary and secondary ozone standard levels to 70 parts per billion (ppb) (2015 Ozone National AAQS.). The SoCAB is currently classified as an "extreme" nonattainment for the 2015 Ozone National AAQS. Meeting the 2015 federal ozone standard requires reducing NO_x emissions, the key pollutant that creates ozone, by 67 percent more than is required by adopted rules and regulations in 2037. The only way to achieve the required NO_x reductions is through extensive use of zero emission (ZE) technologies across all stationary and mobile sources. South Coast AQMD's primary authority is over stationary sources which account for approximately 20 percent of NO_x emissions. The overwhelming majority of NO_x emissions are from heavy-duty trucks, ships and other State and federally regulated mobile sources that are mostly beyond the South Coast AQMD's control. The region will not meet the standard absent significant federal action. In addition to federal action, the 2022 AQMP requires substantial reliance on future deployment of advanced technologies to meet the standard. The control strategy for the 2022 AQMP includes aggressive new regulations and the development

of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available ZE and low-NO_x technologies and (2) developing new ZE and ultra-low NO_x technologies for use in cases where the technology is not currently available. South Coast AQMD is prioritizing distribution of incentive funding in Environmental Justice areas and seeking opportunities to focus benefits on the most disadvantaged communities (South Coast AQMD 2022).

Lead State Implementation Plan

In 2008, EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

South Coast AQMD PM2.5 Redesignation Request and Maintenance Plan

In 1997, the EPA adopted the 24-hour fine $PM_{2.5}$ standard of 65 micrograms per cubic meter ($\mu g/m^3$). In 2006, this standard was lowered to a more health-protective level of 35 $\mu g/m^3$. The SoCAB is designated nonattainment for both the 65 and 35 $\mu g/m^3$ 24-hour $PM_{2.5}$ standards (24-hour $PM_{2.5}$ standards). In 2020, monitored data demonstrated that the SoCAB attained both 24-hour $PM_{2.5}$ standards. The South Coast AQMD has developed the 2021 Redesignation Request and Maintenance Plan for the 1997 and 2006 24-hour $PM_{2.5}$ Standards demonstrating that the SoCAB has met the requirements to be redesignated to attainment for the 24-hour $PM_{2.5}$ standards (South Coast AQMD 2021a).

AB 617, Community Air Protection Program

Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) requires local air districts to monitor and implement air pollution control strategies that reduce localized air pollution in communities that bear the greatest burdens. In response to AB 617, CARB has established the Community Air Protection Program.

Air districts are required to host workshops to help identify disadvantaged communities disproportionately affected by poor air quality. Once the criteria for identifying the highest priority locations have been identified and the communities have been selected, new community monitoring systems would be installed to track and monitor community-specific air pollution goals. In 2018 CARB prepared an air monitoring plan (Community Air Protection Blueprint), that evaluates the availability and effectiveness of air monitoring technologies and

existing community air monitoring networks. Under AB 617, the Blueprint is required to be updated every five years.

Under AB 617, CARB is also required to prepare a statewide strategy to reduce TACs and criteria pollutants in impacted communities; provide a statewide clearinghouse for best available retrofit control technology; adopt new rules requiring the latest best available retrofit control technology for all criteria pollutants for which an area has not achieved attainment of California AAQS; and provide uniform, statewide reporting of emissions inventories. Air districts are required to adopt a community emissions reduction program to achieve reductions for the communities impacted by air pollution that CARB identifies.

1.1.2 Existing Conditions

CLIMATE/METEOROLOGY

South Coast Air Basin

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The lowest average temperature is reported at 45°F in December, and the highest average temperature is 86°F in August. Rainfall averages 12.3 inches per year in the vicinity of the area (Weatherspark 2026).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as

high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the (South Coast AQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (South Coast AQMD 2005).

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***Unclassified:*** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment:*** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.

- ***Nonattainment:*** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- ***Nonattainment/Transitional:*** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 3, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*.

Table 3 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment [1]
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) [2]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2025a.

1 The SoCAB is pending a resignation request from nonattainment to attainment for the 24-hour federal $PM_{2.5}$ standards. The 2021 $PM_{2.5}$ Redesignation Request and Maintenance Plan demonstrates that the South Coast meets the requirements of the CAA to allow US EPA to redesignate the SoCAB to attainment for the 65 µg/m^3 and 35 µg/m^3 24-hour $PM_{2.5}$ standards. CARB submitted the 2021 $PM_{2.5}$ Redesignation Request to the US EPA as a revision to the California SIP (CARB 2021).

2 In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas for lead in the SoCAB are unclassified. However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's SIP revision was submitted to the US EPA for approval.

EXISTING AMBIENT AIR QUALITY

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 16: North Orange County. The air quality monitoring station closest to the proposed project is the Anaheim-Pampas Lane Monitoring Station, which is one of the monitoring stations South Coast AQMD operates and maintains within the SoCAB.[7] Data from this station includes O_3, PM_{10}, $PM_{2.5}$, and NO_2. Table 4, *Ambient Air Quality Monitoring Summary,* shows rare violations of the state and federal O_3 standards, state PM_{10} standards, and federal $PM_{2.5}$ standards in the last three years.

Table 4 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations [1,2]		
	2022	2023	2024
Ozone (O_3)			
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	1	0	3
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	1	2	3
Max. 1-Hour Conc. (ppm)	0.102	0.089	0.104
Max. 8-Hour Conc. (ppm)	0.076	0.076	0.079
Nitrogen Dioxide (NO_2)			
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0
Max. 1-Hour Conc. (ppb)	0.0530	0.0509	0.0531
Coarse Particulates (PM_{10})			
State 24-Hour > 50 µg/m^3 (days exceed threshold)	1	1	0
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m^3)	67.0	97.8	118.9
Fine Particulates ($PM_{2.5}$)			
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	0	1	5
Max. 24-Hour Conc. (µg/m^3)	33.1	45.6	49.7

Source: CARB 2026d.

Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; * = Data not available

1 Data for O_3, $PM_{2.5}$, PM_{10}, and NO_2 from Anaheim-Pampas Lane Monitoring Station.

2 Most recent data available as of January 2026.

[7] Locations of the SRAs and monitoring stations are shown here: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf.

MULTIPLE AIR TOXICS EXPOSURE STUDY V

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis, MATES I, began in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazards Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time.

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. Diesel particulate matter continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions, and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities. (South Coast AQMD 2021b).

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can

be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the project site are the residences to the south and west of the project site, in addition to onsite receptors of Troy High School.

1.1.3 Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* and the significance thresholds on South Coast AQMD's website (South Coast AQMD 1993). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

The South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5, *South Coast AQMD Significance Thresholds*, lists South Coast AQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the US EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, South Coast AQMD has not developed thresholds for them.

Table 5 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2023.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (South Coast AQMD 2015a)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS. Mass emissions thresholds shown in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. These thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed previously. Projects that do not exceed the South Coast AQMD regional significance thresholds in Table 4 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emissions levels presented in Table 4, then those emissions would cumulatively contribute to the nonattainment status of the air basin and would contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in

lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions in Table 4, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment, because mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited previously.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health to address the issue raised in *Sierra Club v. County of Fresno* (Friant Ranch, L.P.) (2018) 6 Cal.5th 502, Case No. S21978. South Coast AQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions.[8] Ozone concentrations are dependent on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National and California AAQS, and the absence of modeling tools that could provide statistically valid data and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects, it is not possible to link specific health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standards are met in the SoCAB.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is

[8] In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing Sierra Club v. County of Fresno (2018) 6 Cal.5th 502 ("Friant Ranch") in the review and analysis of the proposed project under CEQA in Sacramento County. Consistent with the expert opinions submitted to the court in Friant Ranch by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast AQMD, the SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the Friant Court's advice to explain in meaningful detail why this analysis is not yet feasible. Since this interim memorandum SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects within the South Coast AQMD region.

typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by the South Coast AQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards.[9] As identified in the South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Since South Coast AQMD does not currently have an adopted CO hotspot screening criteria, Bay Area Air District's recommended threshold was used in this analysis. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (Bay Area Air District 2023).

LOCALIZED SIGNIFICANCE THRESHOLDS

The South Coast AQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 6, *South Coast AQMD Localized Significance Thresholds*.

[9] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

Table 6 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD) [1]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD) [1]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (South Coast AQMD) [1]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD) [1]	2.5 µg/m^3

Source: South Coast AQMD 2023.

ppm – parts per million; µg/m^3 – micrograms per cubic meter

1 Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These "screening-level" LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with South Coast AQMD's LST methodology, the screening-level construction LSTs are based on the acreage disturbed per day based on equipment use and SRA. The screening-level construction LSTs for the project site in SRA 16 are shown in Table 7, *South Coast AQMD Screening-Level Localized Significance Thresholds,* for sensitive receptors within minimum reference distance of 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$..

Table 7 South Coast AQMD Screening-Level Localized Significance Thresholds

Acreage Disturbed	Threshold (lbs/day)[1]			
	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acre Disturbed Per Day	103	522	4.00	3.00
1.31 Acre Disturbed Per Day	117	597	4.63	3.31
2.19 Acre Disturbed Per Day	152	796	6.31	4.13
2.5 Acre Disturbed Per Day	159	854	6.83	4.33
3.5 Acre Disturbed Per Day	184	1,037	8.50	5.00

Source: South Coast AQMD 2008, 2011, and 2023a.

1 LSTs are based on sensitive receptors within 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$.

HEALTH RISK

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 8, *South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The type of land uses that typically generate substantial quantities of criteria air pollutants and TACs from operations include industrial (stationary sources) and warehousing (truck idling) land uses (CARB 2005). As beach uses do not use substantial quantities of TACs, these thresholds are typically applied to new industrial projects only. Additionally, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478)).

Table 8 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases

Source: South Coast AQMD 2023.

Draft Operational Cumulative Health Risk Thresholds

South Coast AQMD initiated a Working Group to identify cumulative health risk thresholds for development projects in order to address community concerns of health risk impacts of new projects being developed in areas where there is a higher pollution burden. The cumulative health risk threshold methodology first utilizes a screening approach to identify whether projects can qualitatively address cumulative health risk or quantitatively address health risk:

- **Low Cancer Risk Project Types**: Residential, commercial, recreational, educational, and retail.
- **Medium Cancer Risk Project Types**: Truck yards, gas stations, small industrial projects, and linear projects.
- **High Cancer Risk Project Types**. Industrial, major transportation projects (airports, port, railyard, bus/train station), and major planning projects.

For projects with low and medium cancer risks, like the proposed project, a quantitative analysis is not warranted. For projects with the potential to cause high cancer risk impacts, a quantitative is recommended. The initial cumulative threshold is based on MATES V cancer risk percentile, which identifies a gradient of the effects of air pollution on cancer risk in the South Coast AQMD Region. If the project triggers additional criteria, then the initial cumulative threshold should be adjusted as shown in Table 9, *MATES V Adjusted Cumulative Significant Cancer Risk Thresholds*.

Table 9 MATES V Adjusted Cumulative Significant Cancer Risk Thresholds

Project's Background MATES V Cancer Risk[1]	Revised Initial Thresholds based on Cancer Risk
Most Stringent	≥ 1 in 1 million
>90th Percentile	≥ 3 in 1 million
90th Percentile to 50th Percentile	≥ 5 in 1 million
50th Percentile to 30th Percentile	≥ 7 in 1 million
< 30th Percentile	≥ 10 in 1 million

Source: South Coast AQMD 2024.

1 Most current MATES V is based on 2018 data.

As stated previously, South Coast AQMD has identified that the initial thresholds in Table 9 should be adjusted if any of the following criteria apply:

- **Criteria #1 – Post-2018 Projects with High Volume Diesel Fueled Trucks**. Post-2018 projects are not accounted for in MATES V. Therefore, if new warehousing projects along the truck route[10] have been constructed, then the initial thresholds will be adjusted to the next, more stringent level (e.g., cumulative threshold will adjust from 10 in one million to 7 in one million).
- **Criteria #2 – Health Sensitive Population**. If the project site is within SB 535 or AB 617 community, then the initial thresholds will be adjusted to the next, more stringent level (e.g., cumulative threshold will adjust from 7 in one million to 5 in one million).

[10] Truck route is from the project site to major freeway, within certain distance to sensitive receptors, add all diesel-fueled trucks from post-2018 projects.

This type of project would be considered low to medium cancer risks; thus, an operational cancer risk analysis for the proposed project would not be warranted.

1.2 GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[11] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[12] The major GHG are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting

[11] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[12] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

- ***Chlorofluorocarbons (CFCs***) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.
- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; US EPA 2025b).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 10, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fifth Assessment Report (AR5) GWP values for CH_4, a project that generates 10 MT of CH_4 would be equivalent to 280 MT of CO_2.[13]

[13] The global warming potential of a GHG is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Table 10 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Fourth Assessment Report (AR4) Global Warming Potential Relative to CO_2 [1]	Fifth Assessment Report (AR5) Global Warming Potential Relative to CO_2 [1]	Sixth Assessment Report (AR6) Global Warming Potential Relative to CO_2 [1]
Carbon Dioxide (CO_2)	1	1	1
Methane[2] (CH_4)	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Source: IPCC 2007, 2013, and 2023.

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect latest information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting.

1 Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.

2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

1.2.1 GHG Regulatory Setting

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (US EPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. On March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which would be a 10 MPG increase relative to model year 2021 (NHTSA 2022).

On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027-2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. The final rules establish standards that would require an industry fleet-wide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027-2031) and for light trucks (model years 2029-2031). For heavy-duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030-2032) and 8 percent per year (model years 2033-2035) (NHTSA 2024).

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has developed regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for

existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule, which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence EO. It officially rescinded the Clean Power Plan rule issued during the Obama Administration and set emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants. The Affordable Clean Energy rule was vacated by the United States Court of Appeals for the District of Columbia Circuit on January 19, 2021. The Biden Administration is assessing options on potential future regulations.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in EO S-03-05 and EO B-30-15, EO B-55-18, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), and SB 375.

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, "Safeguarding California", in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, set a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning that not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279

AB 1279, signed by Governor Newsom in September 2022, codified the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. SB 1279 also requires CARB to update the Scoping Plan to address these new targets.

2022 Climate Change Scoping Plan

CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State's anthropogenic GHG emissions (CARB 2022). The Scoping Plan provides updates to the previously adopted 2017 Scoping Plan and addresses the carbon neutrality goals of EO B-55-18 (discussed below) and the ambitious GHG reduction target as directed by AB 1279. Previous Scoping Plans focused on specific GHG reduction targets for our industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. The 2022 Scoping Plan updates the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent Sixth Assessment Report (AR6) of the IPCC and the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB's 2022 Scoping Plan identifies strategies as shown in Table 11, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals.

Table 11 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide EV charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
VMT Reduction	Reduce or eliminate minimum parking standards.
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).

Priority Area	Priority Strategies
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: CARB 2022.

Based on Appendix D of the 2022 CARB Climate Change Scoping Plan, for residential and mixed-use development projects, CARB recommends first demonstrating that these land use development projects are aligned with State climate goals based on the attributes of land use development that reduce operational GHG emissions while simultaneously advancing fair housing. Attributes that accommodate growth in a manner consistent with the GHG and equity goals of SB 32 have all the following attributes:

- Transportation Electrification
  - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.

- VMT Reduction
  - Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).
  - Does not result in the loss or conversion of the State's natural and working lands;
  - Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's Sustainable Communities Strategy (SCS);
  - Reduces parking requirements by:
    - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
    - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
    - For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
  - At least 20 percent of the units are affordable to lower-income residents;
  - Result in no net loss of existing affordable units.

- Building Decarbonization
    - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking (CARB 2022).

If the first approach to demonstrating consistency is not applicable (such as in the case of this school modernization project), the second approach to project-level alignment with state climate goals is to achieve net zero GHG emissions. The third approach to demonstrating project-level alignment with state climate goals is to align with GHG thresholds of significance, which many local air quality management (AQMDs) and air pollution control districts (APCDs) have developed or adopted (CARB 2022).

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The SCAG is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 is defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets became effective in October2018. All SCSs adopted after October 1, 2018, are subject to these new targets. CARB's updated SB 375 targets for the SCAG region were an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018).

The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of "percent per capita" reductions in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies, such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs to achieve the SB 375 targets. CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018).

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan (RTP/SCS). For the SCAG region, the 2024-2050 RTP/SCS, Connect SoCal, was adopted on April 4, 2024, and is an update to the 2020-2045 RTP/SCS. In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2050 (SCAG 2024). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. It also forecasts that implementation of the plan will reduce VMT per capita in year 2050 by 6.3 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2024).

Transportation Sector Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. (See also the discussion on the update to the Corporate Average Fuel Economy standards at the beginning of this Section 5.5.2 under "Federal.") In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and uses market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed Executive Order N-79-20, whose goal is that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the state are ZE by 2045, where feasible. The Executive Order's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Energy Efficiency Regulations

California Building Energy Code: Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2024 (California Code of Regulations [CCR] Title 24, Part 6). Title 24 Part 6 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

In 2024, the CEC adopted the 2025 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission. The 2025 standards become effective and replace the existing 2022 standards on January 1, 2026. The 2025 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.[14] The Building Energy and Efficiency Standards and CALGreen undergo a triennial update with a goal to achieve zero net energy for new buildings by 2030.

California Building Code: Green Building Standards (CALGreen)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[15] The mandatory provisions of CALGreen became effective January 1, 2011, and were most recently updated in 2024 (2025 CALGreen update). The 2025 CALGreen update becomes effective on January 1, 2026, and provides updates to the residential and non-residential voluntary measures.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–

[14] California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

[15] The green building standards became mandatory in the 2010 edition of the code.

federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

AB 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017). In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. South Coast AQMD is one of the air districts that requires air pollution control

technologies for chain-driven broilers, which reduces particulate emissions from these charbroilers by over 80 percent (CARB 2017). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the South Coast Air Basin.

CALIFORNIA'S GHG SOURCES AND RELATIVE CONTRIBUTION

In 2024, the statewide GHG emissions inventory was updated for 2000 to 2022 emissions using the GWPs in IPCC's AR4 and reported that California produced 371.1 $MMTCO_2e$ GHG emissions in 2022 (2.4 percent lower than 2021 levels). The 2022 emissions data shows that California is continuing its established long-term trend of GHG emissions declines, despite the anomalous emissions trends from 2019 through 2021, due in large part to the impacts of the COVID-19 pandemic. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit (AB 32 target for year 2020) and have remained below the Limit since that time. Additionally, the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross state product (GSP)) is declining (CARB 2024b).

California's transportation sector was the single-largest generator of GHG emissions, producing 37.7 percent of the state's total emissions. Industrial sector emissions made up 19.6 percent, and electric power generation made up 16.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include residential and commercial (10.6 percent), agriculture and forestry (8.0 percent), high GWP (5.7 percent), and recycling and waste (2.2 percent).

Emissions from transportation sector decreased compared to 2021, primarily due to a greater share of fuels used for on-road transportation being produced from non-fossil resources. Industrial sector decreases from 2021 to 2022, most notably in the oil and gas production sector. Electricity emissions also decreased compared to 2021 from the continued growth of in-state solar generation and increases to in-state hydropower and imported wind power. High-GWP gases continue to replace ozone-depleting substances (ODS) being phased out under the 1987 Montreal Protocol and emissions from this sector have been stable from 2020 to 2022 (CARB 2024b).

1.2.2 Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[16]

SOUTH COAST AQMD WORKING GROUP

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). The South Coast AQMD Working Group (Meeting No. 15) identified a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010):

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. The South Coast AQMD Working Group identified a screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:
- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

  The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects

[16] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

(e.g., program-level projects such as general plans) for the year 2020.[17] The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.

The bright-line screening-level criterion of 3,000 $MTCO_2e$/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 $MTCO_2e$/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[17] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

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CalEEMod Inputs- Sonora High School Field Improvements Project, Construction

Name:	Sonora High School Field Improvements Project
Project Number:	FHS-08, 02
Project Location:	401 S Palm St, La Habra, CA 90631
County:	Orange
Climate Zone:	7
Land Use Setting:	Urban
Gas Utility Company:	Southern California Gas
Electric Utility Company:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	South Coast AQMD
SRA:	16 - North Orange County

Disturbed Site Acreage 7.90

Demolition	Footprint SQFT	Acres	Stories	Tons of Debris
Buildings				
Metal Storage Buildings	1,340	0.03	2	62
Hardscape				
Asphalt Pavement	6,570	0.15	NA	97
Other Concrete Hardscape	420	0.01	NA	6
Total	**8,330**	**0.19**		**165**

New Construction	Gross SQFT	Footprint SQFT	Acres	Stories
Buildings				
Field Building	3,015	2,615	0.06	2
Building 400 Modernizations				
Biology classrooms	3,990	3,990	0.09	1
Chemistry classrooms	4,194	4,194	0.10	1
Other Room Modernizations	924	924	0.02	1
Landscaping				
Auxiliary Field	42,257	42,257	0.97	NA
Synthetic Turf Field	91,803	91,803	2.11	NA
Golf Putting Green	23,576	23,576	0.54	NA
Landscaping	21,299	21,299	0.49	NA
Hardscape				
Concrete Hardscape	40,114	40,114	0.92	NA
Synthetic Track Surface	63,529	63,529	1.46	NA
Other Hardscape (e.g., decomposed granite)	44,764	44,764	1.03	NA
Total	**330,357**	**329,957**	**7.78**	

Field Lighting	Size Metric	Acres
Number of Light Poles[1]	24	NA
Area disturbed per light pole (SF)[2]	216	0.00
Total Disturbance	**5,184**	**0.12**

Notes:

[1] Accounts for eight lights at the varsity baseball field, two lights at the auxilary field, four lights at the varsity softball field, four lights at the junior varity baseball field, and six lights at the track field.

[2] Based on applicant-provided information.

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet	Landscaped SQFT	Special Landscaped SQFT[1]
Educational	High School	3.015	1000 SQFT	4.17	3,015	63,556	115,379
Educational[2]	High School	9.108	1001 SQFT	0.21	9,108		
Parking[3]	Other Non-Asphalt Surface	5.184	1000 SQFT	0.12	5,184		
Parking	Other Non-Asphalt Surface	148.407	1000 SQFT	3.41	148,407		
				7.90			

Notes:

[1] Accounts for synthetic turf surfaces.

[2] Accounts for Building 400 classroom modernizations. Since these improvements would not change the operational characteristics of this building, only construction activities associated with these improvements are modeled.

[3] Accounts for field lighting installation.

Demolition

Component	Amount to be Demolished	Haul Truck Capacity (Tons)[1]	Haul Distance (miles)[1]	Total Trip Ends	Duration (days)	Trip Ends Per Day
Demolition (Tons)	165	20	20	17	7	2

Notes:

[1] CalEEMod default used.

Architectural Coating

	Percent Painted	
Interior Painted:	100%	
Exterior Painted:	100%	
South Coast AQMD Rule 1113		
Interior Paint VOC content:	50	grams per liter
Exterior Paint VOC content:	50	grams per liter
Parking Paint VOC content:	100	grams per liter

Field Improvements	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area[3]	Paintable Interior Area[1]	Paintable Exterior Area[1]
Non-Residential Structures					
Field Building	3,015	2.0	6,030	4,523	1,508
Building 400 Modernizations[4]	9,108	2.0	18,216	13,662	0
				18,185	**1,508**
Parking					
Other Non-Asphalt Surface	153,591	6%	9,215	-	9,215
					9,215

Notes:

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] CalEEMod assumes the total surface for painting equals 2 times the floor square footage for nonresidential square footage defined by user.

[3] Assumes that all parking and non-parking asphalt will be striped. CalEEMod methodology assumes 6% of surface area is striped.

[4] No exterior painting would occur during the modernizations work associated with the proposed project.

Fugitive Dust Rule Compliance

SCAQMD Rule 403

Water Unpaved Roads	Frequency:	2	per day
	PM_{10}:	55	% Reduction
	$PM_{2.5}$:	55	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM_{10}:	61	% Reduction
	$PM_{2.5}$:	61	% Reduction
Unpaved Roads	Vehicle Speed:	25	mph

SCAQMD Rule 1186

	Clean Paved Road	9	% PM Reduction

Mitigation Measure AIR-1

Water Exposed Area	Frequency:	3	per day
	PM_{10}:	**74**	% Reduction
	$PM_{2.5}$:	**74**	% Reduction

Pavement Volume to Weight Conversion

Component	Total SF of Area[1]	Assumed Thickness (foot)[2]	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf)[3]	AC Mass (lbs)	AC Mass (tons)
Asphalt Pavement	6,570	0.333	2,190	89	194,667	97.33
Other Concrete Hardscape	420	0.333	140	89	12,444	6.22
Total	6,990					104

[1] Based on infromation provided by the District

[2] Gibbons, Jim. 1999. Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System. https://www.uni-groupusa.org/PDF/NEMO_tech_8.pdf

[3] CalRecycle. 2019. Solid Waste Cleanup Program Weights and Volumes for Project Estimates. https://www.delmar.ca.us/DocumentCenter/View/5668/CalRecycle-Conversion-Table

Building Demolition Haul Trip Calculation

Source: CalEEMod User's Guide Version 2022, Appendix C

Conversion factors

0.046	ton/SF	Building Debris
2.0	CY/ton	Building Debris
1.2641662	tons/cy	Soil
20	tons	Truck Capacity in tons
16	CY	Truck Capacity in CY
0.8	CY/ton	Soil

Building	BSF Demo[1]	Tons/SF	Tons	CY of Building Materials	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
Building Demolition	1,340	0.046	62	123	16	20	8	16

Notes

[1] Based on information provided by the District.

Construction Activities and Schedule Assumptions

* based on schedule provided by District

8/1/2026-1/1/2027

CalEEMod Default Construction Schedule				
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Demolition	Demolition	8/3/2026	8/31/2026	21
Site Preparation	Site Preparation	9/1/2026	9/15/2026	11
Grading	Grading	9/16/2026	10/14/2026	21
Building Construction	Building Construction	10/15/2026	9/2/2027	231
Paving	Paving	9/3/2027	10/1/2027	21
Architectural Coating	Architectural Coating	10/2/2027	10/30/2027	20
			Total Days	**453**

Normalization Calculations				
CalEEMod Defaults Construction Duration			**Assumed Construction Duration**	
453	days of construction		8/1/2026	1/1/2027
1.24	years of construction		153	days
14.89	months of construction		5.03	months
		Norm Factor:	0.34	

Revised Construction Schedule				
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Demolition	Demolition	8/3/2026	8/11/2026	7
Site Preparation	Site Preparation	8/12/2026	8/17/2026	4
Grading	Grading	8/18/2026	8/26/2026	7
Field Improvements and Modernizations Construction	Building Construction	8/27/2026	12/31/2026	91
Paving	Paving	12/23/2026	12/31/2026	7
Architectural Coating	Architectural Coating	12/23/2026	12/31/2026	7
			Total Days	**123**

Notes:

Field improvements and modernizations construction conservatively assumed to overlap with architectural coating and paving activities.

CalEEMod Construction Off-Road Equipment Inputs

Source: CalEEMod defaults.

Construction Equipment Details			
Default Equipment	**# of Equipment**	**hr/day**	**total trips per day**
Building and Asphalt Demolition			
Concrete/Industrial Saws	1	8	
Excavators	3	8	
Rubber Tired Dozers	2	8	
Worker Trips			15
Vendor Trips			2
Hauling Trips			6
Water Trucks	Acres Disturbed:	1	6
	Onsite Travel (mi/day)	0.83	
Modified Vendor Trips			8
Site Preparation			
Tractors/Loaders/Backhoes	4	8	
Rubber Tired Dozers	3	8	
Worker Trips			18
Vendor Trips			1
Hauling Trips			0
Water Trucks (added to Vendor Trips)	Acres Disturbed:	3.50	18
	Onsite Travel (mi/day)	2.89	
Modified Vendor Trips			19
Grading			
Graders	1	8	
Tractors/Loaders/Backhoes	3	8	
Excavators	1	8	
Rubber Tired Dozers	1	8	
Worker Trips			15
Vendor Trips			3
Hauling Trips			0
Water Trucks (added to Vendor Trips)	Acres Disturbed:	2.5	14
	Onsite Travel (mi/day)	2.06	
Modified Vendor Trips			17

Building Construction				
	Cranes	1	7	
	Forklifts	3	8	
	Generator Sets	1	8	
	Tractors/Loaders/Backhoes	3	7	
	Welders	1	8	
	Worker Trips			5
	Vendor Trips			2
	Hauling Trips			0
Paving				
	Pavers	1	8	
	Paving Equipment	2	8	
	Rollers	2	8	
	Worker Trips			15
	Vendor Trips			2
	Hauling Trips			0
Architectural Coating				
	Air Compressors	1	6	
	Worker Trips			1
	Vendor Trips			0
	Hauling Trips			0

Water Truck Vendor Trip Calculation

Amount of Water (gal/acre/day)[1]	Water Truck Capacity (gallons)[2]
10,000	4,000

Notes:

[1] Based on data provided in Guidance for Application for Dust Control Permit
Maricopa County Air Quality Department. 2005, June. Guidance for Application of Dust Control Permit. https://www.epa.gov/sites/default/files/2019-04/documents/mr_guidanceforapplicationfordustcontrolpermit.pdf)

[2] Based on standard water truck capacity:
McLellan Industries. 2025, January (access). Water Trucks. https://www.mclellanindustries.com/trucks/water-trucks/

[3] Assumes that dozers, tractors/loaders/backhoes, and graders can disturb 0.50 acres per day and scrapers can disturb 1 acre per day.

CalEEMod Inputs- Sonora High School Field Improvements Project, Operation

Name: Sonora High School Field Improvements Project
Project Number: FHS-08, 02
Project Location: 401 S Palm St, La Habra, CA 90631
County: Orange
Climate Zone: 7
Land Use Setting: Urban
Gas Utility Company: Southern California Gas
Electric Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast AQMD
SRA: 16 - North Orange County

Disturbed Site Acreage 7.90

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet	Landscaped SQFT	Special Landscaped SQFT
Educational	High School	3.015	1000 SQFT	4.17	3,015	63,556	115,379
Parking	Other Non-Asphalt Surfa	5.184	1000 SQFT	0.12	5,184		
Parking	Other Non-Asphalt Surfa	148.407	1000 SQFT	3.41	148,407		
				7.90			

Project Trips: The proposed project would result in a decrease in enrollment from the proposed modernizations and no new events result from the field improvements. Therefore, no net increase in mobile emissions would occur.

Water Use (CalEEMod default)[1]

	Indoor (gals/year)	Outdoor (gals/year)	Total
High School	100,112	2,651,365	2,751,477

Notes
[1] Assumes 100% aerobic treatment.

Solid Waste (CalEEMod default)

Land Use	Total Solid Waste (tons/year)
High School	3.92

Electricity (Buildings)

Default CalEEMod Energy Use

Land Use Subtype	Total Annual Electricity Consumption (kWh/year)	Total Annual Natural Gas Consumption (kBTU/year)	Title-24 Electricity Energy Intensity (kWhr/size/year)*	Title-24 Natural Gas Energy Intensity (KBTU/size/year)*	Nontitle-24 Electricity Energy Intensity (kWhr/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)
High School	18,856.85	63,254.37	**16,301.57**	**32,174.65**	2,555.29	31,079.73

Converting Natural Gas Consumption to Electricity Consumption for All-Electric Buildings

Land Use Subtype	Title-24 Natural Gas Energy Intensity (KBTU/size/year)	Converted Title-24 Energy Intensity (kWh/size/year)*	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)	Converted Nontitle-24 Energy Intensity (kWh/size/year)*
High School	32,174.65	9.43	**31,079.73**	**9.11**

*Assumes 3,412 BTU per kWh.

Source: EIA. 2024 (last updated). Units and calculators explained British thermal units (Btu). https://www.eia.gov/energyexplained/units-and-calculators/british-thermal-units.php.

Adjusted CalEEMod Energy Use

Land Use Subtype	Total Annual Electricity Consumption (kWh/year)	Total Annual Natural Gas Consumption (kBTU/year)	Title-24 Electricity Energy Intensity (kWhr/size/year)*	Title-24 Natural Gas Energy Intensity (KBTU/size/year)*	Nontitle-24 Electricity Energy Intensity (kWhr/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)
High School	18,875.40	0.00	**16,311.00**	**0.00**	2,564.40	0.00

Lighting (Electricity Use)

	Total kW[1]	Events/Year[2]	Hours[3]	Kwh (Annual)
Practices/Games	179.70	103	4.50	83,291
			Total Annual kWh	**83,291**

Calculation of GHGs from Field Lighting

CO_2 [4]	CH_4 [4]	N_2O [4]	CO_2e	CO_2e
lbs/Mwh	lbs/Mwh	lbs/Mwh	lbs/Mwh	MT/Kwh
346.20	0.033	0.004	348.21	0.0002

CO_2e from Lighting (MT/Year)	**13.16**

Notes

[1] Based on the total light load for the proposed lighting as provided by the District in the Musco Lighting Plan.
[2] Based on the number of events that would change to a different time under proposed conditions.
[3] Assumes lighting will be used from 4:30 PM to 8:00 PM

Architectural Coating (see Construction Inputs page)

Southern California Edison Carbon Intensity Factors[1]

Forecasted Year	2026	
CO_2:	346.20	pounds per megawatt hour
CH_4:	0.033	pound per megawatt hour
N_2O:	0.004	pound per megawatt hour

Notes:
[1] CalEEMod default values.

Activity/Use[1]		Number of New Events	Start Time	End Time	Lighting in use (hrs)[2]	Total Light Use per Year
Softball Practice		3	15:30	20:00	4.5	14
Football Practice		10	15:30	20:00	4.5	45
Soccer Practice		87	15:30	20:00	4.5	392
Powder Puff/Practice		3	15:30	20:00	4.5	14
	Total	**103**				**464**
					Hrs/Event	**4.5**

[1] Based on Appendix B of the Sonora High School Athletic Fields Design Due Diligence and CEQA Scoping Study. This accounts for events that would change their time of use of the sports facilities under proposed conditions.

[2] Assume lighting in use past 4:30pm and all new proposed events would occur with use of lights.

Sonora HS Field Improvements Project (Construction) Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sonora HS Field Improvements Project (Construction)
Construction Start Date	8/3/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80000
Precipitation (days)	18.8000
Location	401 S Palm St, La Habra, CA 90631, USA
County	Orange
City	La Habra
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5751
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

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	3.01500	1000sqft	4.17000	3,015.00	63,556.0	115,379	—	—
High School	9.10800	1000sqft	0.20909	9,108.00	0.00000	0.00000	—	—

Other Non-Asphalt Surfaces	5.18400	1000sqft	0.11901	0.00000	0.00000	—	—	—
Other Non-Asphalt Surfaces	148.407	1000sqft	3.40696	0.00000	0.00000	—	—	—

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.	3.85090	3.21621	29.8469	30.0481	0.05326	1.24691	9.13010	10.3770	1.14751	4.14570	5.29321	—	6,133.01	6,133.01	0.24878	0.13718	2.35173	6,182.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.5599	21.1725	18.0349	25.0620	0.03997	0.72257	0.31004	1.03261	0.66484	0.07410	0.73894	—	4,428.05	4,428.05	0.17390	0.06044	0.03313	4,450.45
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.84918	0.76977	3.67235	4.59494	0.00815	0.14354	0.21644	0.35998	0.13209	0.08331	0.21540	—	885.751	885.751	0.03583	0.01439	0.09575	891.032
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15498	0.14048	0.67020	0.83858	0.00149	0.02620	0.03950	0.06570	0.02411	0.01520	0.03931	—	146.646	146.646	0.00593	0.00238	0.01585	147.520

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.85090	3.21621	29.8469	30.0481	0.05326	1.24691	9.13010	10.3770	1.14751	4.14570	5.29321	—	6,133.01	6,133.01	0.24878	0.13718	2.35173	6,182.46
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	21.5599	21.1725	18.0349	25.0620	0.03997	0.72257	0.31004	1.03261	0.66484	0.07410	0.73894	—	4,428.05	4,428.05	0.17390	0.06044	0.03313	4,450.45
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.84918	0.76977	3.67235	4.59494	0.00815	0.14354	0.21644	0.35998	0.13209	0.08331	0.21540	—	885.751	885.751	0.03583	0.01439	0.09575	891.032
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.15498	0.14048	0.67020	0.83858	0.00149	0.02620	0.03950	0.06570	0.02411	0.01520	0.03931	—	146.646	146.646	0.00593	0.00238	0.01585	147.520

3. Construction Emissions Details

3.1. Demolition (2026) - 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	2.72490	2.28674	20.6515	19.0056	0.03253	0.84309	—	0.84309	0.77564	—	0.77564	—	3,426.59	3,426.59	0.13900	0.02780	—	3,438.35
Demolition	—	—	—	—	—	—	0.31899	0.31899	—	0.04830	0.04830	—	—	—	—	—	—	—
Onsite truck	0.00165	0.00061	0.01637	0.01126	0.00004	0.00004	0.30804	0.30807	0.00004	0.03079	0.03083	—	4.37127	4.37127	0.00098	0.00070	0.00576	4.61115

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05226	0.04386	0.39606	0.36449	0.00062	0.01617	—	0.01617	0.01488	—	0.01488	—	65.7155	65.7155	0.00267	0.00053	—	65.9410
Demolition	—	—	—	—	—	—	0.00612	0.00612	—	0.00093	0.00093	—	—	—	—	—	—	—
Onsite truck	0.00003	0.00001	0.00032	0.00022	< 0.000005	< 0.000005	0.00560	0.00560	< 0.000005	0.00056	0.00056	—	0.08403	0.08403	0.00002	0.00001	0.00005	0.08857
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00954	0.00800	0.07228	0.06652	0.00011	0.00295	—	0.00295	0.00271	—	0.00271	—	10.8800	10.8800	0.00044	0.00009	—	10.9173
Demolition	—	—	—	—	—	—	0.00112	0.00112	—	0.00017	0.00017	—	—	—	—	—	—	—
Onsite truck	0.00001	< 0.000005	0.00006	0.00004	< 0.000005	< 0.000005	0.00102	0.00102	< 0.000005	0.00010	0.00010	—	0.01391	0.01391	< 0.000005	< 0.000005	0.00001	0.01466
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05192	0.05060	0.04564	0.79052	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	195.324	195.324	0.00231	0.00711	0.67888	198.179
Vendor	0.01965	0.00533	0.25545	0.12787	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	250.915	250.915	0.01252	0.03542	0.64828	262.430
Hauling	0.04034	0.00622	0.49128	0.21720	0.00278	0.00529	0.10859	0.11389	0.00529	0.03046	0.03575	—	411.163	411.163	0.03122	0.06508	0.83229	432.170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133

Vendor	0.00037	0.00010	0.00513	0.00248	0.00003	0.00003	0.00130	0.00133	0.00003	0.00036	0.00039	—	4.81307	4.81307	0.00024	0.00068	0.00538	5.02685
Hauling	0.00077	0.00011	0.00986	0.00418	0.00005	0.00010	0.00206	0.00216	0.00010	0.00058	0.00068	—	7.88650	7.88650	0.00060	0.00125	0.00689	8.28029
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00007	0.00002	0.00094	0.00045	0.00001	0.00001	0.00024	0.00024	0.00001	0.00007	0.00007	—	0.79686	0.79686	0.00004	0.00011	0.00089	0.83225
Hauling	0.00014	0.00002	0.00180	0.00076	0.00001	0.00002	0.00038	0.00040	0.00002	0.00011	0.00012	—	1.30570	1.30570	0.00010	0.00021	0.00114	1.37090

3.3. Site Preparation (2026) - 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	3.74146	3.14387	29.1635	28.8082	0.04890	1.24251	—	1.24251	1.14311	—	1.14311	—	5,297.94	5,297.94	0.21491	0.04298	—	5,316.12
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00066	0.02341	0.01394	0.00009	0.00013	1.07256	1.07269	0.00013	0.10721	0.10734	—	11.2654	11.2654	0.00143	0.00179	0.02004	11.8558
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04100	0.03445	0.31960	0.31571	0.00054	0.01362	—	0.01362	0.01253	—	0.01253	—	58.0596	58.0596	0.00236	0.00047	—	58.2589

Dust From Material Movement	—	—	—	—	—	—	0.08401	0.08401	—	0.04318	0.04318	—	—	—	—	—	—	—
Onsite truck	0.00002	0.00001	0.00027	0.00015	< 0.000005	< 0.000005	0.01115	0.01115	< 0.000005	0.00111	0.00112	—	0.12357	0.12357	0.00002	0.00002	0.00009	0.12991
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00748	0.00629	0.05833	0.05762	0.00010	0.00249	—	0.00249	0.00229	—	0.00229	—	9.61243	9.61243	0.00039	0.00008	—	9.64542
Dust From Material Movement	—	—	—	—	—	—	0.01533	0.01533	—	0.00788	0.00788	—	—	—	—	—	—	—
Onsite truck	< 0.000005	< 0.000005	0.00005	0.00003	< 0.000005	< 0.000005	0.00203	0.00203	< 0.000005	0.00020	0.00020	—	0.02046	0.02046	< 0.000005	< 0.000005	0.00002	0.02151
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06057	0.05903	0.05324	0.92228	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	227.878	227.878	0.00270	0.00829	0.79203	231.209
Vendor	0.04666	0.01265	0.60670	0.30369	0.00427	0.00427	0.16256	0.16683	0.00427	0.04491	0.04919	—	595.922	595.922	0.02974	0.08411	1.53966	623.270
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00066	0.00064	0.00067	0.00906	0.00000	0.00000	0.00248	0.00248	0.00000	0.00058	0.00058	—	2.40921	2.40921	0.00003	0.00009	0.00375	2.44089
Vendor	0.00051	0.00013	0.00697	0.00336	0.00005	0.00005	0.00176	0.00181	0.00005	0.00049	0.00053	—	6.53202	6.53202	0.00033	0.00092	0.00730	6.82215
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00012	0.00012	0.00012	0.00165	0.00000	0.00000	0.00045	0.00045	0.00000	0.00011	0.00011	—	0.39887	0.39887	0.00001	0.00002	0.00062	0.40412

Vendor	0.00009	0.00002	0.00127	0.00061	0.00001	0.00001	0.00032	0.00033	0.00001	0.00009	0.00010	—	1.08145	1.08145	0.00005	0.00015	0.00121	1.12948
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Grading (2026) - 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	1.95871	1.64586	14.9701	17.4372	0.02732	0.64622	—	0.64622	0.59452	—	0.59452	—	2,959.64	2,959.64	0.12006	0.02401	—	2,969.79
Dust From Material Movement	—	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00064	0.02058	0.01286	0.00007	0.00009	0.76453	0.76462	0.00009	0.07642	0.07651	—	8.48769	8.48769	0.00125	0.00135	0.01429	8.93682
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03756	0.03156	0.28710	0.33441	0.00052	0.01239	—	0.01239	0.01140	—	0.01140	—	56.7602	56.7602	0.00230	0.00046	—	56.9550
Dust From Material Movement	—	—	—	—	—	—	0.05297	0.05297	—	0.02562	0.02562	—	—	—	—	—	—	—
Onsite truck	0.00004	0.00001	0.00041	0.00025	< 0.000005	< 0.000005	0.01391	0.01391	< 0.000005	0.00139	0.00139	—	0.16297	0.16297	0.00002	0.00003	0.00012	0.17143

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00686	0.00576	0.05240	0.06103	0.00010	0.00226	—	0.00226	0.00208	—	0.00208	—	9.39729	9.39729	0.00038	0.00008	—	9.42954
Dust From Material Movement	—	—	—	—	—	—	0.00967	0.00967	—	0.00467	0.00467	—	—	—	—	—	—	—
Onsite truck	0.00001	< 0.000005	0.00007	0.00005	< 0.000005	< 0.000005	0.00254	0.00254	< 0.000005	0.00025	0.00025	—	0.02698	0.02698	< 0.000005	< 0.000005	0.00002	0.02838
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05192	0.05060	0.04564	0.79052	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	195.324	195.324	0.00231	0.00711	0.67888	198.179
Vendor	0.04175	0.01132	0.54284	0.27172	0.00382	0.00382	0.14545	0.14927	0.00382	0.04019	0.04401	—	533.194	533.194	0.02661	0.07526	1.37759	557.663
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133
Vendor	0.00079	0.00021	0.01091	0.00527	0.00007	0.00007	0.00276	0.00283	0.00007	0.00076	0.00084	—	10.2278	10.2278	0.00051	0.00144	0.01143	10.6820
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00014	0.00004	0.00199	0.00096	0.00001	0.00001	0.00050	0.00052	0.00001	0.00014	0.00015	—	1.69332	1.69332	0.00008	0.00024	0.00189	1.76854
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2026) - 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	1.27993	1.07101	9.85401	12.9664	0.02340	0.37865	—	0.37865	0.34836	—	0.34836	—	2,397.24	2,397.24	0.09724	0.01945	—	2,405.47
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27993	1.07101	9.85401	12.9664	0.02340	0.37865	—	0.37865	0.34836	—	0.34836	—	2,397.24	2,397.24	0.09724	0.01945	—	2,405.47
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31911	0.26702	2.45675	3.23271	0.00583	0.09440	—	0.09440	0.08685	—	0.08685	—	597.668	597.668	0.02424	0.00485	—	599.719
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05824	0.04873	0.44836	0.58997	0.00106	0.01723	—	0.01723	0.01585	—	0.01585	—	98.9508	98.9508	0.00401	0.00080	—	99.2904
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01762	0.01717	0.01549	0.26834	0.00000	0.00000	0.06655	0.06655	0.00000	0.01560	0.01560	—	66.3015	66.3015	0.00079	0.00241	0.23044	67.2708
Vendor	0.00488	0.00132	0.06345	0.03176	0.00045	0.00045	0.01700	0.01745	0.00045	0.00470	0.00514	—	62.3196	62.3196	0.00311	0.00880	0.16101	65.1796
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01751	0.01717	0.01779	0.23146	0.00000	0.00000	0.06655	0.06655	0.00000	0.01560	0.01560	—	63.0992	63.0992	0.00090	0.00241	0.00597	63.8468
Vendor	0.00479	0.00124	0.06602	0.03246	0.00045	0.00045	0.01700	0.01745	0.00045	0.00470	0.00514	—	62.3504	62.3504	0.00311	0.00880	0.00418	65.0535
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00437	0.00425	0.00444	0.05999	0.00000	0.00000	0.01639	0.01639	0.00000	0.00384	0.00384	—	15.9469	15.9469	0.00022	0.00060	0.02480	16.1566
Vendor	0.00121	0.00032	0.01657	0.00801	0.00011	0.00011	0.00420	0.00431	0.00011	0.00116	0.00127	—	15.5405	15.5405	0.00078	0.00219	0.01736	16.2307
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00080	0.00078	0.00081	0.01095	0.00000	0.00000	0.00299	0.00299	0.00000	0.00070	0.00070	—	2.64019	2.64019	0.00004	0.00010	0.00411	2.67491
Vendor	0.00022	0.00006	0.00302	0.00146	0.00002	0.00002	0.00077	0.00079	0.00002	0.00021	0.00023	—	2.57290	2.57290	0.00013	0.00036	0.00287	2.68718
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Paving (2026) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90546	0.76084	7.11822	9.93804	0.01395	0.31987	—	0.31987	0.29428	—	0.29428	—	1,510.59	1,510.59	0.06128	0.01226	—	1,515.78
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01736	0.01459	0.13651	0.19059	0.00027	0.00613	—	0.00613	0.00564	—	0.00564	—	28.9702	28.9702	0.00118	0.00024	—	29.0697
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00317	0.00266	0.02491	0.03478	0.00005	0.00112	—	0.00112	0.00103	—	0.00103	—	4.79635	4.79635	0.00019	0.00004	—	4.81281
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05159	0.05060	0.05241	0.68189	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	185.890	185.890	0.00265	0.00711	0.01758	188.092

Vendor	0.00482	0.00124	0.06646	0.03267	0.00045	0.00045	0.01711	0.01756	0.00045	0.00473	0.00518	—	62.7596	62.7596	0.00313	0.00885	0.00421	65.4805
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133
Vendor	0.00009	0.00002	0.00128	0.00062	0.00001	0.00001	0.00032	0.00033	0.00001	0.00009	0.00010	—	1.20327	1.20327	0.00006	0.00017	0.00134	1.25671
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00002	< 0.000005	0.00023	0.00011	< 0.000005	< 0.000005	0.00006	0.00006	< 0.000005	0.00002	0.00002	—	0.19921	0.19921	0.00001	0.00003	0.00022	0.20806
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14557	0.12031	0.85645	1.13283	0.00173	0.02315	—	0.02315	0.02130	—	0.02130	—	133.504	133.504	0.00542	0.00108	—	133.963
Architectural Coatings	19.1467	19.1467	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00279	0.00231	0.01643	0.02173	0.00003	0.00044	—	0.00044	0.00041	—	0.00041	—	2.56036	2.56036	0.00010	0.00002	—	2.56915
Architectural Coatings	0.36720	0.36720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00051	0.00042	0.00300	0.00396	0.00001	0.00008	—	0.00008	0.00007	—	0.00007	—	0.42390	0.42390	0.00002	< 0.000005	—	0.42535
Architectural Coatings	0.06701	0.06701	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00350	0.00343	0.00356	0.04629	0.00000	0.00000	0.01331	0.01331	0.00000	0.00312	0.00312	—	12.6198	12.6198	0.00018	0.00048	0.00119	12.7694
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00007	0.00007	0.00007	0.00092	0.00000	0.00000	0.00025	0.00025	0.00000	0.00006	0.00006	—	0.24534	0.24534	< 0.000005	0.00001	0.00038	0.24856
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00001	0.00001	0.00001	0.00017	0.00000	0.00000	0.00005	0.00005	0.00000	0.00001	0.00001	—	0.04062	0.04062	< 0.000005	< 0.000005	0.00006	0.04115
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/3/2026	8/11/2026	5.00000	7.00000	—
Site Preparation	Site Preparation	8/12/2026	8/17/2026	5.00000	4.00000	—
Grading	Grading	8/18/2026	8/26/2026	5.00000	7.00000	—
Building Construction	Building Construction	8/27/2026	12/31/2026	5.00000	91.0000	—
Paving	Paving	12/23/2026	12/31/2026	5.00000	7.00000	—
Architectural Coating	Architectural Coating	12/23/2026	12/31/2026	5.00000	7.00000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000

Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	8.00000	10.2000	HHDT,MHDT
Demolition	Hauling	6.00000	20.0000	HHDT
Demolition	Onsite truck	1.000000	0.83000	HHDT
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	19.0000	10.2000	HHDT,MHDT

Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	1.000000	2.89000	HHDT
Grading	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	17.0000	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	1.000000	2.06000	HHDT
Building Construction	Worker	5.09166	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	1.98696	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	2.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	1.01833	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	18,184.5	1,508.00	9,215.46

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	165.000	0.00000
Site Preparation	—	—	6.00000	0.00000	0.00000
Grading	—	—	7.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	3.52596

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	High School	0.00000	0%
Paving	High School	0.00000	0%
Paving	Other Non-Asphalt Surfaces	0.11901	0%
Paving	Other Non-Asphalt Surfaces	3.40696	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00000	531.983	0.03300	0.00400

7. Health and Equity Details

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	Lot acreage for educational, high school land use category modified to account for acreage of landscaping improvements. Special Landscape Area modified to account for area of artificial turf improvements.
Construction: Construction Phases	Schedule modified to account for District-provided schedule duration of 8/1/2026 through 1/1/2027 and conservative assumption of overlap between building construction, architectural coating, and paving activities.
Construction: Architectural Coatings	Non-residential exterior area modified to remove the area of the Building 400 modernizations. No exterior coatings would be needed for this portion of the work.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	0.06921	4.17000
Landscape Area	sq. ft	—	63,556.0
Special Landscape Area	sq. ft	63,556.0	115,379

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	End Date	8/31/2026	8/11/2026
Demolition	Demolition	Work Days per Phase	20.0000	7.00000
Site Preparation	Site Preparation	Start Date	9/1/2026	8/12/2026
Site Preparation	Site Preparation	End Date	9/15/2026	8/17/2026
Site Preparation	Site Preparation	Work Days per Phase	10.00000	4.00000
Grading	Grading	Start Date	9/16/2026	8/18/2026
Grading	Grading	End Date	10/14/2026	8/26/2026
Grading	Grading	Work Days per Phase	20.0000	7.00000
Building Construction	Building Construction	Start Date	10/15/2026	8/27/2026
Building Construction	Building Construction	End Date	9/2/2027	12/31/2026
Building Construction	Building Construction	Work Days per Phase	230.000	91.0000
Paving	Paving	Start Date	9/3/2027	12/23/2026
Paving	Paving	End Date	10/1/2027	12/31/2026
Paving	Paving	Work Days per Phase	20.0000	7.00000
Architectural Coating	Architectural Coating	Start Date	10/2/2027	12/23/2026
Architectural Coating	Architectural Coating	End Date	10/30/2027	12/31/2026
Architectural Coating	Architectural Coating	Work Days per Phase	20.0000	7.00000

8.4.8. Architectural Coatings

Phase Name	Model Parameter	Units	Default Value	New Value
Architectural Coating	Non-Residential Exterior Area	sq ft	6,061.50	1,508.00

Sonora HS Field Improvements Project (Construction 3X Watering) Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sonora HS Field Improvements Project (Construction 3X Watering)
Construction Start Date	8/3/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80000
Precipitation (days)	18.8000
Location	401 S Palm St, La Habra, CA 90631, USA
County	Orange
City	La Habra
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5751
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

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	3.01500	1000sqft	4.17000	3,015.00	63,556.0	115,379	—	—
High School	9.10800	1000sqft	0.20909	9,108.00	0.00000	0.00000	—	—

Other Non-Asphalt Surfaces	5.18400	1000sqft	0.11901	0.00000	0.00000	—	—	—
Other Non-Asphalt Surfaces	148.407	1000sqft	3.40696	0.00000	0.00000	—	—	—

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.	3.85090	3.21621	29.8469	30.0481	0.05326	1.24691	6.57469	7.82160	1.14751	2.83238	3.97989	—	6,133.01	6,133.01	0.24878	0.13718	2.35173	6,182.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.5599	21.1725	18.0349	25.0620	0.03997	0.72257	0.31004	1.03261	0.66484	0.07410	0.73894	—	4,428.05	4,428.05	0.17390	0.06044	0.03313	4,450.45
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.84918	0.76977	3.67235	4.59494	0.00815	0.14354	0.17077	0.31432	0.13209	0.06038	0.19247	—	885.751	885.751	0.03583	0.01439	0.09575	891.032
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15498	0.14048	0.67020	0.83858	0.00149	0.02620	0.03117	0.05736	0.02411	0.01102	0.03513	—	146.646	146.646	0.00593	0.00238	0.01585	147.520

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.85090	3.21621	29.8469	30.0481	0.05326	1.24691	6.57469	7.82160	1.14751	2.83238	3.97989	—	6,133.01	6,133.01	0.24878	0.13718	2.35173	6,182.46
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	21.5599	21.1725	18.0349	25.0620	0.03997	0.72257	0.31004	1.03261	0.66484	0.07410	0.73894	—	4,428.05	4,428.05	0.17390	0.06044	0.03313	4,450.45
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.84918	0.76977	3.67235	4.59494	0.00815	0.14354	0.17077	0.31432	0.13209	0.06038	0.19247	—	885.751	885.751	0.03583	0.01439	0.09575	891.032
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.15498	0.14048	0.67020	0.83858	0.00149	0.02620	0.03117	0.05736	0.02411	0.01102	0.03513	—	146.646	146.646	0.00593	0.00238	0.01585	147.520

3. Construction Emissions Details

3.1. Demolition (2026) - 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	2.72490	2.28674	20.6515	19.0056	0.03253	0.84309	—	0.84309	0.77564	—	0.77564	—	3,426.59	3,426.59	0.13900	0.02780	—	3,438.35
Demolition	—	—	—	—	—	—	0.31899	0.31899	—	0.04830	0.04830	—	—	—	—	—	—	—
Onsite truck	0.00165	0.00061	0.01637	0.01126	0.00004	0.00004	0.30804	0.30807	0.00004	0.03079	0.03083	—	4.37127	4.37127	0.00098	0.00070	0.00576	4.61115

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05226	0.04386	0.39606	0.36449	0.00062	0.01617	—	0.01617	0.01488	—	0.01488	—	65.7155	65.7155	0.00267	0.00053	—	65.9410
Demolition	—	—	—	—	—	—	0.00612	0.00612	—	0.00093	0.00093	—	—	—	—	—	—	—
Onsite truck	0.00003	0.00001	0.00032	0.00022	< 0.000005	< 0.000005	0.00560	0.00560	< 0.000005	0.00056	0.00056	—	0.08403	0.08403	0.00002	0.00001	0.00005	0.08857
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00954	0.00800	0.07228	0.06652	0.00011	0.00295	—	0.00295	0.00271	—	0.00271	—	10.8800	10.8800	0.00044	0.00009	—	10.9173
Demolition	—	—	—	—	—	—	0.00112	0.00112	—	0.00017	0.00017	—	—	—	—	—	—	—
Onsite truck	0.00001	< 0.000005	0.00006	0.00004	< 0.000005	< 0.000005	0.00102	0.00102	< 0.000005	0.00010	0.00010	—	0.01391	0.01391	< 0.000005	< 0.000005	0.00001	0.01466
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05192	0.05060	0.04564	0.79052	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	195.324	195.324	0.00231	0.00711	0.67888	198.179
Vendor	0.01965	0.00533	0.25545	0.12787	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	250.915	250.915	0.01252	0.03542	0.64828	262.430
Hauling	0.04034	0.00622	0.49128	0.21720	0.00278	0.00529	0.10859	0.11389	0.00529	0.03046	0.03575	—	411.163	411.163	0.03122	0.06508	0.83229	432.170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133

Vendor	0.00037	0.00010	0.00513	0.00248	0.00003	0.00003	0.00130	0.00133	0.00003	0.00036	0.00039	—	4.81307	4.81307	0.00024	0.00068	0.00538	5.02685
Hauling	0.00077	0.00011	0.00986	0.00418	0.00005	0.00010	0.00206	0.00216	0.00010	0.00058	0.00068	—	7.88650	7.88650	0.00060	0.00125	0.00689	8.28029
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00007	0.00002	0.00094	0.00045	0.00001	0.00001	0.00024	0.00024	0.00001	0.00007	0.00007	—	0.79686	0.79686	0.00004	0.00011	0.00089	0.83225
Hauling	0.00014	0.00002	0.00180	0.00076	0.00001	0.00002	0.00038	0.00040	0.00002	0.00011	0.00012	—	1.30570	1.30570	0.00010	0.00021	0.00114	1.37090

3.3. Site Preparation (2026) - 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	3.74146	3.14387	29.1635	28.8082	0.04890	1.24251	—	1.24251	1.14311	—	1.14311	—	5,297.94	5,297.94	0.21491	0.04298	—	5,316.12
Dust From Material Movement	—	—	—	—	—	—	5.11082	5.11082	—	2.62664	2.62664	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00066	0.02341	0.01394	0.00009	0.00013	1.07256	1.07269	0.00013	0.10721	0.10734	—	11.2654	11.2654	0.00143	0.00179	0.02004	11.8558
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04100	0.03445	0.31960	0.31571	0.00054	0.01362	—	0.01362	0.01253	—	0.01253	—	58.0596	58.0596	0.00236	0.00047	—	58.2589

Dust From Material Movement	—	—	—	—	—	—	0.05601	0.05601	—	0.02879	0.02879	—	—	—	—	—	—	—
Onsite truck	0.00002	0.00001	0.00027	0.00015	< 0.000005	< 0.000005	0.01115	0.01115	< 0.000005	0.00111	0.00112	—	0.12357	0.12357	0.00002	0.00002	0.00009	0.12991
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00748	0.00629	0.05833	0.05762	0.00010	0.00249	—	0.00249	0.00229	—	0.00229	—	9.61243	9.61243	0.00039	0.00008	—	9.64542
Dust From Material Movement	—	—	—	—	—	—	0.01022	0.01022	—	0.00525	0.00525	—	—	—	—	—	—	—
Onsite truck	< 0.000005	< 0.000005	0.00005	0.00003	< 0.000005	< 0.000005	0.00203	0.00203	< 0.000005	0.00020	0.00020	—	0.02046	0.02046	< 0.000005	< 0.000005	0.00002	0.02151
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06057	0.05903	0.05324	0.92228	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	227.878	227.878	0.00270	0.00829	0.79203	231.209
Vendor	0.04666	0.01265	0.60670	0.30369	0.00427	0.00427	0.16256	0.16683	0.00427	0.04491	0.04919	—	595.922	595.922	0.02974	0.08411	1.53966	623.270
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00066	0.00064	0.00067	0.00906	0.00000	0.00000	0.00248	0.00248	0.00000	0.00058	0.00058	—	2.40921	2.40921	0.00003	0.00009	0.00375	2.44089
Vendor	0.00051	0.00013	0.00697	0.00336	0.00005	0.00005	0.00176	0.00181	0.00005	0.00049	0.00053	—	6.53202	6.53202	0.00033	0.00092	0.00730	6.82215
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00012	0.00012	0.00012	0.00165	0.00000	0.00000	0.00045	0.00045	0.00000	0.00011	0.00011	—	0.39887	0.39887	0.00001	0.00002	0.00062	0.40412

Vendor	0.00009	0.00002	0.00127	0.00061	0.00001	0.00001	0.00032	0.00033	0.00001	0.00009	0.00010	—	1.08145	1.08145	0.00005	0.00015	0.00121	1.12948
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Grading (2026) - 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	1.95871	1.64586	14.9701	17.4372	0.02732	0.64622	—	0.64622	0.59452	—	0.59452	—	2,959.64	2,959.64	0.12006	0.02401	—	2,969.79
Dust From Material Movement	—	—	—	—	—	—	1.84147	1.84147	—	0.89043	0.89043	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00064	0.02058	0.01286	0.00007	0.00009	0.76453	0.76462	0.00009	0.07642	0.07651	—	8.48769	8.48769	0.00125	0.00135	0.01429	8.93682
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03756	0.03156	0.28710	0.33441	0.00052	0.01239	—	0.01239	0.01140	—	0.01140	—	56.7602	56.7602	0.00230	0.00046	—	56.9550
Dust From Material Movement	—	—	—	—	—	—	0.03532	0.03532	—	0.01708	0.01708	—	—	—	—	—	—	—
Onsite truck	0.00004	0.00001	0.00041	0.00025	< 0.000005	< 0.000005	0.01391	0.01391	< 0.000005	0.00139	0.00139	—	0.16297	0.16297	0.00002	0.00003	0.00012	0.17143

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00686	0.00576	0.05240	0.06103	0.00010	0.00226	—	0.00226	0.00208	—	0.00208	—	9.39729	9.39729	0.00038	0.00008	—	9.42954
Dust From Material Movement	—	—	—	—	—	—	0.00645	0.00645	—	0.00312	0.00312	—	—	—	—	—	—	—
Onsite truck	0.00001	< 0.000005	0.00007	0.00005	< 0.000005	< 0.000005	0.00254	0.00254	< 0.000005	0.00025	0.00025	—	0.02698	0.02698	< 0.000005	< 0.000005	0.00002	0.02838
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05192	0.05060	0.04564	0.79052	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	195.324	195.324	0.00231	0.00711	0.67888	198.179
Vendor	0.04175	0.01132	0.54284	0.27172	0.00382	0.00382	0.14545	0.14927	0.00382	0.04019	0.04401	—	533.194	533.194	0.02661	0.07526	1.37759	557.663
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133
Vendor	0.00079	0.00021	0.01091	0.00527	0.00007	0.00007	0.00276	0.00283	0.00007	0.00076	0.00084	—	10.2278	10.2278	0.00051	0.00144	0.01143	10.6820
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00014	0.00004	0.00199	0.00096	0.00001	0.00001	0.00050	0.00052	0.00001	0.00014	0.00015	—	1.69332	1.69332	0.00008	0.00024	0.00189	1.76854
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2026) - 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	1.27993	1.07101	9.85401	12.9664	0.02340	0.37865	—	0.37865	0.34836	—	0.34836	—	2,397.24	2,397.24	0.09724	0.01945	—	2,405.47
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27993	1.07101	9.85401	12.9664	0.02340	0.37865	—	0.37865	0.34836	—	0.34836	—	2,397.24	2,397.24	0.09724	0.01945	—	2,405.47
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31911	0.26702	2.45675	3.23271	0.00583	0.09440	—	0.09440	0.08685	—	0.08685	—	597.668	597.668	0.02424	0.00485	—	599.719
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05824	0.04873	0.44836	0.58997	0.00106	0.01723	—	0.01723	0.01585	—	0.01585	—	98.9508	98.9508	0.00401	0.00080	—	99.2904
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01762	0.01717	0.01549	0.26834	0.00000	0.00000	0.06655	0.06655	0.00000	0.01560	0.01560	—	66.3015	66.3015	0.00079	0.00241	0.23044	67.2708
Vendor	0.00488	0.00132	0.06345	0.03176	0.00045	0.00045	0.01700	0.01745	0.00045	0.00470	0.00514	—	62.3196	62.3196	0.00311	0.00880	0.16101	65.1796
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01751	0.01717	0.01779	0.23146	0.00000	0.00000	0.06655	0.06655	0.00000	0.01560	0.01560	—	63.0992	63.0992	0.00090	0.00241	0.00597	63.8468
Vendor	0.00479	0.00124	0.06602	0.03246	0.00045	0.00045	0.01700	0.01745	0.00045	0.00470	0.00514	—	62.3504	62.3504	0.00311	0.00880	0.00418	65.0535
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00437	0.00425	0.00444	0.05999	0.00000	0.00000	0.01639	0.01639	0.00000	0.00384	0.00384	—	15.9469	15.9469	0.00022	0.00060	0.02480	16.1566
Vendor	0.00121	0.00032	0.01657	0.00801	0.00011	0.00011	0.00420	0.00431	0.00011	0.00116	0.00127	—	15.5405	15.5405	0.00078	0.00219	0.01736	16.2307
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00080	0.00078	0.00081	0.01095	0.00000	0.00000	0.00299	0.00299	0.00000	0.00070	0.00070	—	2.64019	2.64019	0.00004	0.00010	0.00411	2.67491
Vendor	0.00022	0.00006	0.00302	0.00146	0.00002	0.00002	0.00077	0.00079	0.00002	0.00021	0.00023	—	2.57290	2.57290	0.00013	0.00036	0.00287	2.68718
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Paving (2026) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90546	0.76084	7.11822	9.93804	0.01395	0.31987	—	0.31987	0.29428	—	0.29428	—	1,510.59	1,510.59	0.06128	0.01226	—	1,515.78
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01736	0.01459	0.13651	0.19059	0.00027	0.00613	—	0.00613	0.00564	—	0.00564	—	28.9702	28.9702	0.00118	0.00024	—	29.0697
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00317	0.00266	0.02491	0.03478	0.00005	0.00112	—	0.00112	0.00103	—	0.00103	—	4.79635	4.79635	0.00019	0.00004	—	4.81281
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05159	0.05060	0.05241	0.68189	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	185.890	185.890	0.00265	0.00711	0.01758	188.092

Vendor	0.00482	0.00124	0.06646	0.03267	0.00045	0.00045	0.01711	0.01756	0.00045	0.00473	0.00518	—	62.7596	62.7596	0.00313	0.00885	0.00421	65.4805
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00101	0.01359	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.61381	3.61381	0.00005	0.00014	0.00562	3.66133
Vendor	0.00009	0.00002	0.00128	0.00062	0.00001	0.00001	0.00032	0.00033	0.00001	0.00009	0.00010	—	1.20327	1.20327	0.00006	0.00017	0.00134	1.25671
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00018	0.00018	0.00018	0.00248	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.59831	0.59831	0.00001	0.00002	0.00093	0.60618
Vendor	0.00002	< 0.000005	0.00023	0.00011	< 0.000005	< 0.000005	0.00006	0.00006	< 0.000005	0.00002	0.00002	—	0.19921	0.19921	0.00001	0.00003	0.00022	0.20806
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14557	0.12031	0.85645	1.13283	0.00173	0.02315	—	0.02315	0.02130	—	0.02130	—	133.504	133.504	0.00542	0.00108	—	133.963
Architectural Coatings	19.1467	19.1467	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00279	0.00231	0.01643	0.02173	0.00003	0.00044	—	0.00044	0.00041	—	0.00041	—	2.56036	2.56036	0.00010	0.00002	—	2.56915
Architectural Coatings	0.36720	0.36720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00051	0.00042	0.00300	0.00396	0.00001	0.00008	—	0.00008	0.00007	—	0.00007	—	0.42390	0.42390	0.00002	< 0.000005	—	0.42535
Architectural Coatings	0.06701	0.06701	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00350	0.00343	0.00356	0.04629	0.00000	0.00000	0.01331	0.01331	0.00000	0.00312	0.00312	—	12.6198	12.6198	0.00018	0.00048	0.00119	12.7694
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00007	0.00007	0.00007	0.00092	0.00000	0.00000	0.00025	0.00025	0.00000	0.00006	0.00006	—	0.24534	0.24534	< 0.000005	0.00001	0.00038	0.24856
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00001	0.00001	0.00001	0.00017	0.00000	0.00000	0.00005	0.00005	0.00000	0.00001	0.00001	—	0.04062	0.04062	< 0.000005	< 0.000005	0.00006	0.04115
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/3/2026	8/11/2026	5.00000	7.00000	—
Site Preparation	Site Preparation	8/12/2026	8/17/2026	5.00000	4.00000	—
Grading	Grading	8/18/2026	8/26/2026	5.00000	7.00000	—
Building Construction	Building Construction	8/27/2026	12/31/2026	5.00000	91.0000	—
Paving	Paving	12/23/2026	12/31/2026	5.00000	7.00000	—
Architectural Coating	Architectural Coating	12/23/2026	12/31/2026	5.00000	7.00000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000

Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	8.00000	10.2000	HHDT,MHDT
Demolition	Hauling	6.00000	20.0000	HHDT
Demolition	Onsite truck	1.000000	0.83000	HHDT
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	19.0000	10.2000	HHDT,MHDT

Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	1.000000	2.89000	HHDT
Grading	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	17.0000	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	1.000000	2.06000	HHDT
Building Construction	Worker	5.09166	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	1.98696	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	2.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	1.01833	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	18,184.5	1,508.00	9,215.46

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	165.000	0.00000
Site Preparation	—	—	6.00000	0.00000	0.00000
Grading	—	—	7.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	3.52596

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	High School	0.00000	0%
Paving	High School	0.00000	0%
Paving	Other Non-Asphalt Surfaces	0.11901	0%
Paving	Other Non-Asphalt Surfaces	3.40696	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00000	531.983	0.03300	0.00400

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Lot acreage for educational, high school land use category modified to account for acreage of landscaping improvements. Special Landscape Area modified to account for area of artificial turf improvements.
Construction: Construction Phases	Schedule modified to account for District-provided schedule duration of 8/1/2026 through 1/1/2027 and conservative assumption of overlap between building construction, architectural coating, and paving activities.
Construction: Architectural Coatings	Non-residential exterior area modified to remove the area of the Building 400 modernizations. No exterior coatings would be needed for this portion of the work.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	0.06921	4.17000
Landscape Area	sq. ft	—	63,556.0
Special Landscape Area	sq. ft	63,556.0	115,379

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	End Date	8/31/2026	8/11/2026
Demolition	Demolition	Work Days per Phase	20.0000	7.00000
Site Preparation	Site Preparation	Start Date	9/1/2026	8/12/2026

Site Preparation	Site Preparation	End Date	9/15/2026	8/17/2026
Site Preparation	Site Preparation	Work Days per Phase	10.00000	4.00000
Grading	Grading	Start Date	9/16/2026	8/18/2026
Grading	Grading	End Date	10/14/2026	8/26/2026
Grading	Grading	Work Days per Phase	20.0000	7.00000
Building Construction	Building Construction	Start Date	10/15/2026	8/27/2026
Building Construction	Building Construction	End Date	9/2/2027	12/31/2026
Building Construction	Building Construction	Work Days per Phase	230.000	91.0000
Paving	Paving	Start Date	9/3/2027	12/23/2026
Paving	Paving	End Date	10/1/2027	12/31/2026
Paving	Paving	Work Days per Phase	20.0000	7.00000
Architectural Coating	Architectural Coating	Start Date	10/2/2027	12/23/2026
Architectural Coating	Architectural Coating	End Date	10/30/2027	12/31/2026
Architectural Coating	Architectural Coating	Work Days per Phase	20.0000	7.00000

8.4.8. Architectural Coatings

Phase Name	Model Parameter	Units	Default Value	New Value
Architectural Coating	Non-Residential Exterior Area	sq ft	6,061.50	1,508.00

Sonora HS Field Improvements Project (Operation) Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sonora HS Field Improvements Project (Operation)
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80000
Precipitation (days)	18.8000
Location	401 S Palm St, La Habra, CA 90631, USA
County	Orange
City	La Habra
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5751
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

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	3.01500	1000sqft	4.17000	3,015.00	63,556.0	115,379	—	—
Other Non-Asphalt Surfaces	5.18400	1000sqft	0.11901	0.00000	0.00000	—	—	—

Other Non-Asphalt Surfaces	148.407	1000sqft	3.40696	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	0.11930	0.11750	0.00110	0.13113	0.00001	0.00023	0.00000	0.00023	0.00018	0.00000	0.00018	2.30421	49.5503	51.8545	0.23386	0.00084	0.01165	57.9631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09597	0.09597	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2.30421	49.0111	51.3153	0.23383	0.00084	0.01165	57.4219
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11195	0.11071	0.00076	0.08981	0.00001	0.00016	0.00000	0.00016	0.00012	0.00000	0.00012	2.30421	49.3804	51.6846	0.23385	0.00084	0.01165	57.7925
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02043	0.02021	0.00014	0.01639	< 0.000005	0.00003	0.00000	0.00003	0.00002	0.00000	0.00002	0.38149	8.17549	8.55698	0.03872	0.00014	0.00193	9.56822

2.5. Operations Emissions by Sector, Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.11930	0.11750	0.00110	0.13113	0.00001	0.00023	—	0.00023	0.00018	—	0.00018	—	0.53922	0.53922	0.00002	< 0.000005	—	0.54117
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Water	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Waste	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Total	0.11930	0.11750	0.00110	0.13113	0.00001	0.00023	0.00000	0.00023	0.00018	0.00000	0.00018	2.30421	49.5503	51.8545	0.23386	0.00084	0.01165	57.9631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.09597	0.09597	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Water	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Waste	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Total	0.09597	0.09597	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2.30421	49.0111	51.3153	0.23383	0.00084	0.01165	57.4219
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.11195	0.11071	0.00076	0.08981	0.00001	0.00016	—	0.00016	0.00012	—	0.00012	—	0.36933	0.36933	0.00002	< 0.000005	—	0.37066
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Water	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Waste	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Total	0.11195	0.11071	0.00076	0.08981	0.00001	0.00016	0.00000	0.00016	0.00012	0.00000	0.00012	2.30421	49.3804	51.6846	0.23385	0.00084	0.01165	57.7925

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.02043	0.02021	0.00014	0.01639	< 0.000005	0.00003	—	0.00003	0.00002	—	0.00002	—	0.06115	0.06115	< 0.000005	< 0.000005	—	0.06137
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	4.55470	4.55470	0.00028	0.00003	—	4.57197
Water	—	—	—	—	—	—	—	—	—	—	—	0.03176	3.55964	3.59140	0.00348	0.00010	—	3.70937
Waste	—	—	—	—	—	—	—	—	—	—	—	0.34973	0.00000	0.34973	0.03495	0.00000	—	1.22358
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00193	0.00193
Total	0.02043	0.02021	0.00014	0.01639	< 0.000005	0.00003	0.00000	0.00003	0.00002	0.00000	0.00002	0.38149	8.17549	8.55698	0.03872	0.00014	0.00193	9.56822

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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	—	—	—	—	—	—	—	—	—	—	—	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	27.5107	27.5107	0.00171	0.00021	—	27.6150

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	27.5107	27.5107	0.00171	0.00021	—	27.6150
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	4.55470	4.55470	0.00028	0.00003	—	4.57197
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	4.55470	4.55470	0.00028	0.00003	—	4.57197

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	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.07660	0.07660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01937	0.01937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02333	0.02153	0.00110	0.13113	0.00001	0.00023	—	0.00023	0.00018	—	0.00018	—	0.53922	0.53922	0.00002	< 0.000005	—	0.54117
Total	0.11930	0.11750	0.00110	0.13113	0.00001	0.00023	—	0.00023	0.00018	—	0.00018	—	0.53922	0.53922	0.00002	< 0.000005	—	0.54117
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.07660	0.07660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01937	0.01937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.09597	0.09597	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01398	0.01398	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00353	0.00353	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00292	0.00269	0.00014	0.01639	< 0.000005	0.00003	—	0.00003	0.00002	—	0.00002	—	0.06115	0.06115	< 0.000005	< 0.000005	—	0.06137
Total	0.02043	0.02021	0.00014	0.01639	< 0.000005	0.00003	—	0.00003	0.00002	—	0.00002	—	0.06115	0.06115	< 0.000005	< 0.000005	—	0.06137

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	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.19184	21.5004	21.6922	0.02100	0.00063	—	22.4048
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.03176	3.55964	3.59140	0.00348	0.00010	—	3.70937
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.03176	3.55964	3.59140	0.00348	0.00010	—	3.70937

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	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	2.11237	0.00000	2.11237	0.21112	0.00000	—	7.39047
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.34973	0.00000	0.34973	0.03495	0.00000	—	1.22358
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.34973	0.00000	0.34973	0.03495	0.00000	—	1.22358

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01165	0.01165
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00193	0.00193
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00193	0.00193

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
High School	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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
Other Non-Asphalt Surfaces	Wood Fireplaces	0	0
Other Non-Asphalt Surfaces	Gas Fireplaces	0	0
Other Non-Asphalt Surfaces	Propane Fireplaces	0	0
Other Non-Asphalt Surfaces	Electric Fireplaces	0	0

Other Non-Asphalt Surfaces	No Fireplaces	0	0
Other Non-Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Non-Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Pellet Wood Stoves	0	0
Other Non-Asphalt Surfaces	Wood Fireplaces	0	0
Other Non-Asphalt Surfaces	Gas Fireplaces	0	0
Other Non-Asphalt Surfaces	Propane Fireplaces	0	0
Other Non-Asphalt Surfaces	Electric Fireplaces	0	0
Other Non-Asphalt Surfaces	No Fireplaces	0	0
Other Non-Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Non-Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	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)
0.00000	0.00000	4,522.50	1,507.50	9,215.46

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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	18,875.4	531.983	0.0330	0.0040	0.00000
Other Non-Asphalt Surfaces	0.00000	531.983	0.0330	0.0040	0.00000
Other Non-Asphalt Surfaces	0.00000	531.983	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
High School	100,112	2,651,365
Other Non-Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
High School	3.91950	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000

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	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000

High School	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
High School	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
High School	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000

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

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Lot acreage for educational, high school land use category modified to account for acreage of landscaping improvements. Special Landscape Area modified to account for area of artificial turf improvements.
Construction: Construction Phases	Schedule modified to account for District-provided schedule duration of 8/1/2026 through 1/1/2027 and conservative assumption of overlap between building construction, architectural coating, and paving activities.
Construction: Architectural Coatings	Non-residential exterior area modified to remove the area of the Building 400 modernizations. No exterior coatings would be needed for this portion of the work.
Operations: Vehicle Data	No increase in trips would occur as a result of the proposed project. Therefore, default trips are zero-ed out.

Operations: Energy Use	Default natural gas converted to electricity to account for all-electric building design of field building.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	0.06921	4.17000
Landscape Area	sq. ft	—	63,556.0
Special Landscape Area	sq. ft	63,556.0	115,379

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
High School	Weekday Trip Rate	size/day	14.0700	0.00000
High School	Saturday Trip Rate	size/day	3.98000	0.00000
High School	Sunday Trip Rate	size/day	1.71000	0.00000

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
High School	Electricity	kWh/yr	18,856.9	18,875.4
High School	Electricity (Subject to Title 24)	kWh/yr	16,301.6	16,311.0
High School	Electricity (Not Subject to Title 24)	kWh/yr	2,555.29	2,564.40
High School	Natural Gas	kBTU/yr	63,254.4	0.00000
High School	Natural Gas (Subject to Title 24)	kBTU/yr	32,174.6	0.00000
High School	Natural Gas (Not Subject to Title 24)	kBTU/yr	31,079.7	0.00000

Sonora HS Improvements Regional Construction Emissions Worksheet:

3.1. Demolition (2026) - Unmitigated	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	2.29	20.65	19.01	0.03	0.84	0.78
Dust From Material Movement	0.00	0.00	0.00	0.00	0.32	0.05
Onsite truck	0.00	0.02	0.01	0.00	0.31	0.03
Total	**2.29**	**20.67**	**19.02**	**0.03**	**1.47**	**0.85**
Offsite						
Worker	0.05	0.05	0.79	0.00	0.20	0.05
Vendor	0.01	0.26	0.13	0.00	0.07	0.02
Hauling	0.01	0.49	0.22	0.00	0.11	0.04
Total	**0.06**	**0.79**	**1.14**	**0.00**	**0.38**	**0.10**
TOTAL	***2.35***	***21.46***	***20.15***	***0.04***	***1.85***	***0.96***

3.3. Site Preparation (2026) - Unmitigated	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	3.14	29.16	28.81	0.05	1.24	1.14
Dust From Material Movement	0.00	0.00	0.00	0.00	7.67	3.94
Onsite truck	0.00	0.02	0.01	0.00	1.07	0.11
Total	**3.14**	**29.19**	**28.82**	**0.05**	**9.98**	**5.19**
Offsite						
Worker	0.06	0.05	0.92	0.00	0.23	0.05
Vendor	0.01	0.61	0.30	0.00	0.17	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.07**	**0.66**	**1.23**	**0.00**	**0.40**	**0.10**
TOTAL	***3.22***	***29.85***	***30.05***	***0.05***	***10.38***	***5.29***

3.5. Grading (2026) - Unmitigated	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	1.65	14.97	17.44	0.03	0.65	0.59
Dust From Material Movement	0.00	0.00	0.00	0.00	2.76	1.34
Onsite truck	0.00	0.02	0.01	0.00	0.76	0.08
Total	**1.65**	**14.99**	**17.45**	**0.03**	**4.17**	**2.01**
Offsite						
Worker	0.05	0.05	0.79	0.00	0.20	0.05
Vendor	0.01	0.54	0.27	0.00	0.15	0.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.59**	**1.06**	**0.00**	**0.35**	**0.09**
TOTAL	***1.71***	***15.58***	***18.51***	***0.03***	***4.52***	***2.10***

3.7. Building Construction (2026) - Unmitigated	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	1.07	9.85	12.97	0.02	0.38	0.35
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1.07**	**9.85**	**12.97**	**0.02**	**0.38**	**0.35**
Offsite						
Worker	0.02	0.02	0.27	0.00	0.07	0.02
Vendor	0.00	0.06	0.03	0.00	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.08**	**0.30**	**0.00**	**0.08**	**0.02**
TOTAL	***1.09***	***9.93***	***13.27***	***0.02***	***0.46***	***0.37***

3.9. Paving (2026) - Unmitigated	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Winter**					
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	0.29
Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.76**	**7.12**	**9.94**	**0.01**	**0.32**	**0.29**
Offsite						
Worker	0.05	0.05	0.68	0.00	0.20	0.05
Vendor	0.00	0.07	0.03	0.00	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.12**	**0.71**	**0.00**	**0.21**	**0.05**
TOTAL	***0.81***	***7.24***	***10.65***	***0.01***	***0.53***	***0.35***

3.11. Architectural Coating (2026) - Unmitigated						
	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Winter**					
Off-Road Equipment	0.12	0.86	1.13	0.00	0.02	0.02
Architectural Coatings	19.15	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**19.27**	**0.86**	**1.13**	**0.00**	**0.02**	**0.02**
Offsite						
Worker	0.00	0.00	0.05	0.00	0.01	0.00
Vendor	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
Total	**0.00**	**0.00**	**0.05**	**0.00**	**0.01**	**0.00**
TOTAL	***19.27***	***0.86***	***1.18***	***0.00***	***0.04***	***0.02***
Field Improvements						
Demolition (2026)	***2***	***21***	***20***	***0***	***2***	***1***
Site Preparation (2026)	***3***	***30***	***30***	***0***	***10***	***5***
Grading (2026)	***2***	***16***	***19***	***0***	***5***	***2***
Building Construction (2026)	***1***	***10***	***13***	***0***	***0***	***0***
Paving (2026)	***1***	***7***	***11***	***0***	***1***	***0***
Architectural Coating (2026)	***19***	***1***	***1***	***0***	***0***	***0***
Building Construction, Paving, and Architectural Coating Overlap	***21***	***18***	***25***	***0***	***1***	***1***
MAX DAILY	**21**	**30**	**30**	**0**	**10**	**5**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Sonora HS Improvements Construction LST Worksheet:

3.1. Demolition (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	20.65	19.01	0.84	0.78
Demolition	0.00	0.00	0.32	0.05
Onsite truck	0.02	0.01	0.31	0.03
Total	**20.65**	**19.01**	**1.16**	**0.82**

3.3. Site Preparation (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	29.16	28.81	1.24	1.14
Dust From Material Movement	0.00	0.00	7.67	3.94
Onsite truck	0.02	0.01	1.07	0.11
Total	**29.19**	**28.82**	**9.98**	**5.19**

3.5. Grading (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	14.97	17.44	0.65	0.59
Dust From Material Movement	0.00	0.00	2.76	1.34
Onsite truck	0.02	0.01	0.76	0.08
Total	**14.99**	**17.45**	**4.17**	**2.01**

3.7. Building Construction (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	9.85	12.97	0.38	0.35
Onsite truck	0.00	0.00	0.00	0.00
Total	**9.85**	**12.97**	**0.38**	**0.35**

3.9. Paving (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	7.12	9.94	0.32	0.29
Paving	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**7.12**	**9.94**	**0.32**	**0.29**

3.11. Architectural Coating (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	0.86	1.13	0.02	0.02
Architectural Coatings	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**0.86**	**1.13**	**0.02**	**0.02**

	NOx	CO	PM10 Total	PM2.5 Total
Demolition (2026)	*21*	*19*	*1*	*1*
1.0 Acre LST	*103*	*522*	*4*	*3*
Exceeds LST?	*no*	*no*	*no*	*no*
Site Preparation (2026)	*29*	*29*	*10*	*5*
3.5 Acre LST	*184*	*1,037*	*9*	*5*
Exceeds LST?	*no*	*no*	*yes*	*yes*
Grading (2026)	*15*	*17*	*4*	*2*
2.5 Acre LST	*159*	*854*	*7*	*4*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction, Paving, and Architectural Coating Overlap	*18*	*24*	*1*	*1*
1.31 Acre LST	*117*	*597*	*5*	*3*
Exceeds LST?	*no*	*no*	*no*	*no*

Sonora HS Improvements Construction LST Worksheet (with Mitigation):

3.3. Site Preparation (2026) - Unmitigated				
	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	29.16	28.81	1.24	1.14
Dust From Material Movement	0.00	0.00	5.11	2.63
Onsite truck	0.02	0.01	1.07	0.11
Total	**29.19**	**28.82**	**7.43**	**3.88**
Site Preparation (2026)	***29***	***29***	***7***	***4***
3.5 Acre LST	***184***	***1,037***	***9***	***5***
Exceeds LST?	***no***	***no***	***no***	***no***

Regional Operation Emissions Worksheet

[1] CalEEMod, Version 2022.1.

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.12	0.00	0.13	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.00**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.10	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0	0	0	0	0	0
Area	0	0	0	0	0	0
Energy	0	0	0	0	0	0
Total	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.00**
Regional Thresholds (lb/day)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Sonora HS Improvements Project: GHG Emissions Inventory

Construction[1]

	$MTCO_2e$
2026	148
Total Construction	**148**
30-Year Amortization[2]	**5**

[1] CalEEMod, Version 2022.1.

[2] Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2009, November 19. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 14. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2.

Operation[1]

Field Improvements	**$MTCO_2e$/Year**[2]	
	Operations	**%**
Mobile	0	0%
Area	0	0%
Energy	5	17%
Water	4	13%
Solid Waste	1	4%
Refrigerants	0	0%
School Field Lightings[3]	13	48%
30-Year Construction Amortization	5	18%
	28	100%
South Coast AQMD Bright-Line Screening Threshold	**3,000**	
Exceed Threshold?	**No**	

[1] CalEEMod, Version 2022.1.;

[2] MTCO2e=metric tons of carbon dioxide equivalent.

[3] Includes GHG calculations from proposed field lighting.

Construction Localized Significance Thresholds: 1.00 acre (Demolition)

		NOx & CO		*PM10 & PM2.5*		
SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
16	1.00	25	82	25	82	1.00

Source Receptor	**North Orange County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**103**	Tractors	0.5	0.0625			0
CO	**522**	Graders	0.5	0.0625			0
PM10	**4.00**	Dozers	0.5	0.0625	8	2	1
PM2.5	**3.00**	Scrapers	1	0.125			0
						Acres	1.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	104	121	159	252
	1	103	104	121	159	252
		103	104	121	159	252
CO	1	522	685	1014	1975	6531
	1	522	685	1014	1975	6531
		522	685	1014	1975	6531
PM10	1	4	10	24	53	137
	1	4	10	24	53	137
		4	10	24	53	137
PM2.5	1	3	4	9	20	74
	1	3	4	9	20	74
		3	4	9	20	74

North Orange County

1.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	104	121	159	252
CO	522	685	1014	1975	6531
PM10	4	10	24	53	137
PM2.5	3	4	9	20	74

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
16	1	16	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: 3.5 Acre (Site Preparation)

		NOx & CO		*PM10 & PM2.5*		
SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
16	3.50	25	82	25	82	3.50

Source Receptor	**North Orange County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**184**	Tractors	0.5	0.0625	8	4	2
CO	**1,036**	Graders	0.5	0.0625			0
PM10	**8.50**	Dozers	0.5	0.0625	8	3	1.5
PM2.5	**5.00**	Scrapers	1	0.125			0
						Acres	3.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	3	172	166	179	207	285
	4	196	189	203	228	301
		184	178	191	218	293
CO	3	945	1250	1688	2831	7665
	4	1128	1491	1981	3218	8210
		1037	1371	1835	3025	7938
PM10	3	8	23	37	66	152
	4	9	28	43	72	158
		9	26	40	69	155
PM2.5	3	5	7	12	27	84
	4	5	8	14	31	90
		5	8	13	29	87

North Orange County

3.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	184	178	191	218	293
CO	1037	1371	1835	3025	7938
PM10	9	26	40	69	155
PM2.5	5	8	13	29	87

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
16	3	16	4
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: 2.5 Acre (Grading)

		NOx & CO		*PM10 & PM2.5*		
SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
16	2.50	25	82	25	82	2.50

Source Receptor	**North Orange County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**159**	Tractors	0.5	0.0625	8	3	1.5
CO	**853**	Graders	0.5	0.0625	8	1	0.5
PM10	**6.83**	Dozers	0.5	0.0625	8	1	0.5
PM2.5	**4.33**	Scrapers	1	0.125			0
						Acres	2.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	147	143	156	186	269
	3	172	166	179	207	285
		159	155	168	197	277
CO	2	762	1010	1395	2444	7121
	3	945	1250	1688	2831	7665
		854	1130	1542	2638	7393
PM10	2	6	17	31	60	145
	3	8	23	37	66	152
		7	20	34	63	148
PM2.5	2	4	6	11	24	79
	3	5	7	12	27	84
		4	7	12	26	82

North Orange County

2.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	159	155	168	197	277
CO	854	1130	1542	2638	7393
PM10	7	20	34	63	148
PM2.5	4	7	12	26	82

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
16	2	16	3
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: 1.31 Acre (Building Construction, Architectural Coating, Paving)

		NOx & CO		*PM10 & PM2.5*		
SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
16	1.31	25	82	25	82	1.31

Source Receptor	**North Orange County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**117**	Tractors	0.5	0.0625	7	3	1.3125
CO	**597**	Graders	0.5	0.0625			0
PM10	**4.62**	Dozers	0.5	0.0625			0
PM2.5	**3.31**	Scrapers	1	0.125			0
						Acres	1.31

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	104	121	159	252
	2	147	143	156	186	269
		117	116	132	167	257
CO	1	522	685	1014	1975	6531
	2	762	1010	1395	2444	7121
		597	787	1133	2122	6715
PM10	1	4	10	24	53	137
	2	6	17	31	60	145
		5	12	26	55	140
PM2.5	1	3	4	9	20	74
	2	4	6	11	24	79
		3	5	10	21	76

North Orange County

1.31 Acres

	25	**50**	**100**	**200**	**500**
NOx	117	116	132	167	257
CO	597	787	1133	2122	6715
PM10	5	12	26	55	140
PM2.5	3	5	10	21	76

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
16	1	16	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Risk Assessment Emissions Workshee

Total Construction Workdays:

2026	8/3/2026	########	109	workdays
		total	109	workdays

Onsite Emissions

Tons/Year

Year	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
2026	0.13889	0.65945	0.81400	0.00143	0.02613	0.03171	0.05784	0.02404	0.01328	0.03732

Pounds/Day

Year	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
2026	2.54836	12.10005	14.93574	0.02619	0.47941	0.58187	1.06128	0.44105	0.24373	0.68478

Offsite Emissions

Tons/Year

Year	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
2026	0.00160	0.01075	0.02458	0.00006	0.00007	0.00779	0.00786	0.00007	0.00192	0.00199

Pounds/Day

Year	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
2026	0.02932	0.19728	0.45098	0.00110	0.00126	0.14289	0.14415	0.00126	0.03525	0.03651

Maximum Emissions per phase (tons/year)

3.1 Demolition (2026) - Unmitigated

	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite										
Off-Road Equipment	0.0080036	0.07228	0.06652	0.00011384	0.002950805		0.002950805	0.002714741		0.002714741
Demolition						0.001116467	0.001116467		0.000169065	0.000169065
Onsite truck	1.9931E-06	5.87E-05	3.99E-05	1.41E-07	1.28E-07	0.001022636	0.001022764	1.28E-07	0.000102232	0.00010236
Total	**0.00801**	**0.07234**	**0.06656**	**0.00011**	**0.00295**	**0.00214**	**0.00509**	**0.00271**	**0.00027**	**0.00299**
Offsite										
Worker	0.00017593	0.000183	0.002481	0	0	0.000677939	0.000677939	0	0.000158779	0.000158779
Vendor	1.8025E-05	0.000937	0.000452	6.2964E-06	6.2964E-06	0.000237129	0.000243426	6.2964E-06	6.55787E-05	7.18751E-05
Hauling	2.0834E-05	0.001799	0.000763	9.7224E-06	1.85188E-05	0.000376498	0.000395017	1.85188E-05	0.000105699	0.000124218
Total	**0.00021**	**0.00292**	**0.00370**	**0.00002**	**0.00002**	**0.00129**	**0.00132**	**0.00002**	**0.00033**	**0.00035**
TOTAL	***0.00822***	***0.07526***	***0.07026***	***0.00013***	***0.00298***	***0.00343***	***0.00641***	***0.00274***	***0.00060***	***0.00334***

3.3 Site Preparation (2026) - Unmitigated

	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite										
Off-Road Equipment	0.00628774	0.058327	0.057616	9.7808E-05	0.002485026		0.002485026	0.002286224		0.002286224
Dust From Material Movement						0.015332467	0.015332467		0.007879908	0.007879908
Onsite truck	1.2297E-06	4.84E-05	2.82E-05	1.72E-07	2.55E-07	0.002034711	0.002034966	2.55E-07	0.000203408	0.000203663
Total	**0.00629**	**0.05838**	**0.05764**	**0.00010**	**0.00249**	**0.01737**	**0.01985**	**0.00229**	**0.00808**	**0.01037**
Offsite										
Worker	0.00011729	0.000122	0.001654	0	0	0.00045196	0.00045196	0	0.000105852	0.000105852
Vendor	2.4462E-05	0.001271	0.000614	8.5451E-06	8.54512E-06	0.000321818	0.000330363	8.54512E-06	8.89997E-05	9.75448E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00014**	**0.00139**	**0.00227**	**0.00001**	**0.00001**	**0.00077**	**0.00078**	**0.00001**	**0.00019**	**0.00020**
TOTAL	***0.00643***	***0.05977***	***0.05991***	***0.00011***	***0.00249***	***0.01814***	***0.02063***	***0.00230***	***0.00828***	***0.01057***

3.5 Grading (2026) - Unmitigated

	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite										
Off-Road Equipment	0.00576051	0.052395	0.06103	9.5629E-05	0.002261757		0.002261757	0.002080817		0.002080817
Dust From Material Movement						0.009667731	0.009667731		0.004674765	0.004674765
Onsite truck	2.088E-06	7.42E-05	4.55E-05	2.36E-07	3.18E-07	0.002538108	0.002538426	3.18E-07	0.000253732	0.00025405
Total	**0.00576**	**0.05247**	**0.06108**	**0.00010**	**0.00226**	**0.01221**	**0.01447**	**0.00208**	**0.00493**	**0.00701**
Offsite										
Worker	0.00017593	0.000183	0.002481	0	0	0.000677939	0.000677939	0	0.000158779	0.000158779
Vendor	3.8303E-05	0.001991	0.000962	1.338E-05	1.33799E-05	0.0005039	0.00051728	1.33799E-05	0.000139355	0.000152735
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00021**	**0.00217**	**0.00344**	**0.00001**	**0.00001**	**0.00118**	**0.00120**	**0.00001**	**0.00030**	**0.00031**
TOTAL	***0.00598***	***0.05464***	***0.06452***	***0.00011***	***0.00228***	***0.01339***	***0.01566***	***0.00209***	***0.00523***	***0.00732***

3.7 Building Construction (2026) - Unmitigated

	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite										
Off-Road Equipment	0.04873092	0.448357	0.58997	0.00106456	0.017228758		0.017228758	0.015850457		0.015850457
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.04873**	**0.44836**	**0.58997**	**0.00106**	**0.01723**	**0.00000**	**0.01723**	**0.01585**	**0.00000**	**0.01585**
Offsite										
Worker	0.00077633	0.00081	0.010948	0	0	0.002991592	0.002991592	0	0.000700654	0.000700654
Vendor	5.8199E-05	0.003025	0.001461	2.033E-05	2.03299E-05	0.000765645	0.000785975	2.03299E-05	0.000211741	0.000232071
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00083**	**0.00383**	**0.01241**	**0.00002**	**0.00002**	**0.00376**	**0.00378**	**0.00002**	**0.00091**	**0.00093**
TOTAL	***0.04957***	***0.45219***	***0.60238***	***0.00108***	***0.01725***	***0.00376***	***0.02101***	***0.01587***	***0.00091***	***0.01678***

3.9 Paving (2026) - Unmitigated

	ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite										
Off-Road Equipment	0.00266293	0.024914	0.034783	4.8816E-05	0.00111953		0.00111953	0.001029968		0.001029968
Paving	0									
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.00266**	**0.02491**	**0.03478**	**0.00005**	**0.00112**	**0.00000**	**0.00112**	**0.00103**	**0.00000**	**0.00103**
Offsite										
Worker	0.00017593	0.000183	0.002481	0	0	0.000677939	0.000677939	0	0.000158779	0.000158779
Vendor	4.5062E-06	0.000234	0.000113	1.5741E-06	1.5741E-06	5.92823E-05	6.08564E-05	1.5741E-06	1.63947E-05	1.79688E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00018**	**0.00042**	**0.00259**	**0.00000**	**0.00000**	**0.00074**	**0.00074**	**0.00000**	**0.00018**	**0.00018**
TOTAL	***0.00284***	***0.02533***	***0.03738***	***0.00005***	***0.00112***	***0.00074***	***0.00186***	***0.00103***	***0.00018***	***0.00121***

3.11 Architectural Coating (2026) - Unmitigated

		ROG	NOx	CO	SO2	Exhaust PM10	Fugitive PM10	PM10 Total	Exhaust PM2.5	Fugitive PM2.5	PM2.5 Total
Onsite											
	Off-Road Equipment	0.00042108	0.002998	0.003965	6.0406E-06	8.1037E-05		8.1037E-05	7.4554E-05		7.4554E-05
	Architectural Coatings	0.06701347									
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**0.06743**	**0.00300**	**0.00396**	**0.00001**	**0.00008**	**0.00000**	**0.00008**	**0.00007**	**0.00000**	**0.00007**
Offsite											
	Worker	1.1944E-05	1.25E-05	0.000168	0	0	4.60245E-05	4.60245E-05	0	1.07793E-05	1.07793E-05
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.00001**	**0.00001**	**0.00017**	**0.00000**	**0.00000**	**0.00005**	**0.00005**	**0.00000**	**0.00001**	**0.00001**
TOTAL		***0.06745***	***0.00301***	***0.00413***	***0.00001***	***0.00008***	***0.00005***	***0.00013***	***0.00007***	***0.00001***	***0.00009***

1. CONSTRUCTION HEALTH RISK ASSESSMENT

1.1 INTRODUCTION

The Fullerton Joint Union School District (District or FJUHSD) proposes to construct several improvements (referred to as the "proposed project") at the Sonora High School campus. The proposed project includes two primary components: (1) modernization of the northern half of the existing Math and Science Classroom Building (building 400), and (2) track and field improvements. Each of these two components are discussed below.

Math and Science Classroom Modernization

The proposed project would demolish exterior building elements, such as pavers, a bench, and an irrigation line, and interior elements of building 400, including but not limited, to flooring, electrical elements, interior walls, casework (desk/cabinets), doors and door frames, and heating, ventilation, and air conditioning (HVAC) systems.

The proposed project would replace the doors, plumbing, fire alarm system, fume hoods, roofing, HVAC systems; construct a new roof deck, roof hatch, floor sinks, and epoxy countertops and sinks; and install new flooring, lab casework, and metal casework for flammable and acid storage. In addition, the exterior of building 400 would be repainted.

The proposed project would reconfigure the classroom spaces to include two biology classrooms and two chemistry classrooms. One biology classroom would be 1,963 square feet (sf); the other biology classroom would be 2,027 sf. One chemistry classroom would be 1,997 sf; the other chemistry classroom would be 2,197 sf. The modernization also includes a 311 sf biology storage room, a 233 sf chemical storage room, a 380 sf conference room, a custodial room, and a hallway. The proposed project would result in net decrease in classrooms from six (6) to four (4). The modernization would maintain the existing building 400 footprint.

Track and Field Improvements

To accommodate the improvements at the track and field, the proposed project would remove the existing retaining wall, storage building, concrete slabs curbs, a ramp, track and field equipment (i.e., field goal post, obstacle course, long jump areas, shot put area), storage containers, a vehicle barrier, a storm drain inlet, four trees, and bleachers, stairs, and fencing.

The proposed project would install a synthetic track and synthetic turf field. A new triple jump/long jump area and a sand pit with a sand catcher would be constructed on the west side of the field. The proposed project would install permanent bleachers at the track and field to accommodate students. The track and field improvements would include the installation of pedestrian lighting, four (4) golf bays, a putting green, a shot-put area, discus and shot-put pads, a high jump area, two goal posts, and a new fire hydrant. The proposed project would also install a 24-foot wide digital scoreboard located on the west side of the track and field. Additionally, the proposed public address (PA) system (i.e., speakers) would be installed on the field lights at the track and field and would be placed approximately 20-feet above grade.

As part of the improvements at the track and field, a new single-story, 3,015 sf restroom building would be constructed in the southeast corner of the track and field. The proposed restroom building would include men's, women's, and unisex restrooms; storage room; custodial room; and an electrical room. As part of the proposed project, the District would also convert a 20,037 sf portion of the existing animal grazing area into an auxiliary field with new sod and irrigation. Other improvements to the space include a 6-inch concrete curb, field striping, and field lights. Construction of the proposed project is anticipated to occur in one phase and is anticipated to start in August 2026 and end by January 2027.

The nearby residences surrounding the project site and on-site students could be potentially impacted from the proposed construction activities. Therefore, the health risk impacts from construction activities were determined for all nearby sensitive receptors (within 1,000 feet). As school would continue to operate at the Sonora High School campus during construction of the proposed project, students and employees of Sonora High School would also be receptors of project construction emissions.

Guidance from the California Environmental Protection Agency (CalEPA), Office of Environmental Health Hazard Assessment (OEHHA), California Air Pollution Control Officers Association (CAPCOA), and the South Coast Air Quality Management District (South Coast AQMD) were used to complete the construction health risk assessment (HRA). The following provides the background methodology and assumptions used for the HRA.

1.2 METHODOLOGY

1.2.1 Construction HRA

For this HRA, the South Coast AQMD significance thresholds were deemed to be appropriate and the thresholds that were used for this project are shown below:

- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0

The methodology used in this HRA is consistent with the following OEHHA guidance documents:

- OEHHA. 2004. Guidance for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(f): Guidance for Assessing Exposures and Health Risks at Existing and Proposed School Sites. February, 2004.
- OEHHA. 2015. Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments. February, 2015.

Potential exposures to diesel particulate matter (DPM) from project construction were evaluated for off-site sensitive receptors in close proximity to the site and in addition to on-site receptors that would be present at the Sonora High School campus during construction activities. Pollutant concentrations were estimated using an air dispersion model, and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds adopted for this HRA.

It should be noted that these health impacts are based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA 2005) and the Office of Environmental Health Hazard Assessment (OEHHA 2015) note that conservative assumptions used in a risk assessment are intended to ensure that the estimated risks do not underestimate the actual risks. Therefore, the estimated risks may not necessarily represent actual risks experienced by populations at or near a site. The use of conservative assumptions tends to produce upper-bound estimates of exposure and thus risk.

For residential-based receptors, the following conservative assumptions were used:

- It was assumed that maximum-exposed off-site residential receptors (both children and adults) stood outdoors and are subject to DPM at their residence for 24 hours per day, and approximately 260 construction days per year. In reality, California residents typically will spend on average 2 hours per day outdoors at their residences (USEPA 2011). This would result in lower exposures to construction related DPM emissions and lower estimated risk values.
- The calculated risk for infants from third trimester to age 2 is multiplied by a factor of 10 and children ages 2 to 16 is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA 2015).

For school-based receptors, the following conservative assumptions were used:

- It was assumed that maximum exposed student receptors stood outside and are subject to DPM for 8 hours per day and approximately 180 school days per year for high school students. In reality, students are exposed to outdoor pollutant concentration levels for a portion of the day and are exposed to reduced indoor pollutant concentrations for the

remaining hours due to building ventilation systems. This would result in lower exposures to construction related DPM emissions and lower estimated risk values.

- The calculated risk for children from age 2 to 16 is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA 2015).

1.3 CONSTRUCTION EMISSIONS

Construction emissions were calculated as average daily emissions (lbs/day) for the HRA using the timeframes for construction activities provided by the District and the latest version of California Emissions Estimation Model, known as CalEEMod Version 2022.1 (CAPCOA 2022). To assess more realistic average use of equipment on-site, construction was modeled for 5-day work week schedule and default CalEEMod daily hours of operation for equipment.

The average daily emission rates from on-site construction equipment were determined by dividing the annual average off-road emissions for each construction year by the number of construction days for the calendar year (i.e., 2026). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 1.36-mile of haul route along South Palm Street, East Lambert Road, and East La Habra Boulevard within 1,000 feet of the project site. DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day. The CalEEMod construction emissions outputs and the emission rate calculations are provided in Attachment A.

1.4 DISPERSION MODELING

Air dispersion modeling was performed using the AERMOD atmospheric dispersion model (Lakes AERMOD View, version 13.0.0). The model is a steady-state Gaussian plume model and is approved by South Coast AQMD for estimating ground-level impacts from emission sources in simple and complex terrain. The proposed project was modeled in AERMOD to identify the annual average DPM concentration at the maximally exposed receptor of each receptor type (e.g., residential, worker, and student).

The model requires additional input parameters, including local meteorology and terrain. AERMOD-ready meteorological (met) data was obtained from South Coast AQMD for the nearest representative met station with the five latest available years of record (Fullerton Municipal Airport, 2018, 2020-2023) to represent local weather conditions and prevailing winds. The prevailing wind direction at the Fullerton Municipal Airport meteorological data station is from the southwest, and the wind rose is provided in Attachment B.

The modeling also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Digital elevation model data for the project site and surrounding area were obtained and included in the model runs to account for complex terrain.

An emissions release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and diesel truck traffic, and an initial vertical dispersion parameter of 1.93 meters was used, per CARB guidance (CARB 2000).

To determine contaminant impacts during construction hours, the model's Hour-By-Day-of-Week (HRDOW) scalar option was invoked to predict ground-level concentrations for emissions generated between the hours of 7:00 AM and 4:00 PM, with a 1-hour lunch break, Monday to Friday. In addition, a scalar factor was applied to the risk calculations to account for the number of days receptors are present and exposed to construction emissions per year, consistent with the description provided under Section 1.5.

A unit emission rate of 1 gram per second was used for the construction model. The unit emission rates were proportioned over the area sources for on-site sources and line sources for the off-site truck routes. The maximum AERMOD concentrations from the output files were then multiplied by the emission rates calculated in Section 1.3 to obtain the maximum ground-level concentrations at the maximum exposed individual resident, maximum exposed high school receptor, and maximum exposed worker receptor. The AERMOD model outputs are presented in Attachment B.

1.5 RISK CHARACTERIZATION

1.5.1 Carcinogenic Chemical Risk

Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Therefore, any exposure will have some associated risk. The South Coast AQMD has established a maximum incremental cancer risk of 10 in a million (1×10^{-5} or 10×10^{-6}) for CEQA projects and the OEHHA also sets a typical risk management level as 10 in a million (OEHHA 2015).

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its cancer potency factor (CPF), a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It is an upper-limit estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$), averaged over a lifetime of 70 years.

Recent guidance from OEHHA recommends a refinement to the standard point estimate approach with the use of age-specific breathing rates and age sensitivity factors (ASFs) to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age

group. Once determined, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, the following dose algorithm was used to accommodate the unique exposures associated with each receptor type.

$$\text{Dose}_{\text{AIR,per age group}} = (\text{C}_{\text{air}} \times \text{EF} \times [\frac{\text{BR}}{\text{BW}}] \times \text{A} \times \text{CF})$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
C_{air}	=	concentration of contaminant in air ($\mu g/m^3$)
EF	=	exposure frequency (number of days/365 days)
BR/BW	=	daily breathing rate normalized to body weight (L/kg-day)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor ($1x10^{-6}$, µg to mg, L to m^3)

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor included a correction for absorption across the lung. The default value of 1 was used for this assessment. For residential receptors, the exposure frequency (EF) of 0.96 is used to represent 350 days per year to allow for a two-week period away from home each year (OEHHA 2015). For high school receptors, an EF of 0.49 is used to represent the traditional school calendar of 180 days per year (OEHHA 2004). The daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASF), and fraction of time at home (FAH) for the various age groups follow:

Age Groups	24-Hour BR/BW (L/kg-day)	ED	ASF	FAH
Third trimester	361	0.25	10	0.85
0-2 age group	1,090	1.34	10	0.85

School Age Groups	8-Hour BR/BW (L/kg-day)	ED	ASF	FAH
2–16 age group	520	1.59	3	N/A

For construction analysis, the exposure duration spans the length of construction. To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times \text{CPF} \times \text{ASF} \times \text{FAH} \times \frac{\text{ED}}{AT}$$

Where:

Dose_{AIR} = dose by inhalation (mg/kg-day), per age group
CPF = cancer potency factor, chemical-specific $(\text{mg/kg-day})^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (70 years)

The final step converts the cancer risk in scientific notation to a whole number that expresses the cancer risk in "chances per million" by multiplying the cancer risk by a factor of $1x10^6$ (i.e., 1 million).

Incremental cancer risk (expressed in chances per million) was calculated for the maximum exposed receptor (MER) of each receptor type. The assessment was based on reasonable maximum exposure, defined as the "highest exposure that is reasonably expected to occur" for each receptor type, assuming all source generated emissions concurrently. The calculated results are provided in Attachment A.

1.5.2 Non-Carcinogenic Hazards

An evaluation was also conducted of the potential noncancer effects of chronic DPM exposure. Adverse health effects are evaluated by comparing the annual ground-level concentration of DPM from project construction or operation with the appropriate reference exposure limit

(REL). Examples of noncancer adverse health effects are asthma, chronic obstructive pulmonary disease, and local effects from chemical exposure to specific organs such as the eyes, kidneys, and reproductive system.

The hazard index approach was used to quantify noncarcinogenic impacts. The hazard index assumes that chronic subthreshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For DPM, the target organ determined by OEHHA is the respiratory system. To calculate the hazard index, the DPM concentration is divided by the DPM's chronic REL. A hazard index of 1 or lower means air toxics are unlikely to cause adverse noncancer health effects, such as asthma, over a lifetime of exposure.

1.6 RESULTS

1.6.1 Construction HRA

The following section summarizes the results and conclusion for this HRA report. The maximally exposed receptors for each type were identified as the following:

- Residential Receptor: Single-family residence on West Skywood Street, adjacent to the project site's northern boundary.
- High School Receptor: Sonora High School student receptors at the tennis courts near the northern edge of campus.
- Worker Receptor: Worker receptors adjacent to the project site's southern boundary.

The calculated health risk values are based on the modeled receptor concentration over the construction exposure period, averaged over a 70-year lifetime.

Tables 1, *Construction Risk Summary*, shows the unmitigated health risk results associated with construction activities.

Table 1 Construction Risk Summary

Receptor	Cancer Risk (per million)[1]	Chronic Hazards[1]

Table 1 Construction Risk Summary

Off-Site Residential MER	<0.01	<0.1
Off-Site Worker MER	<0.01	<0.1
On-Site High School MER	<0.01	<0.1
South Coast AQMD Threshold	**10**	**1.0**
Exceeds Threshold?	**No**	**No**

Notes: Cancer risk calculated using 2015 OEHHA HRA guidance.
MER = Maximum Exposed Receptor
1. Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 25 miles per hour on unpaved surfaces, and street sweeping with Rule 1186–compliant sweepers.
In accordance with the latest OEHHA guidance, the calculated total cancer risk conservatively assumes that the risk for the maximally exposed individual receptor consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 0.41-year construction period. Therefore, calculated risk values for age groups from third trimester through 2 years of age were multiplied by a factor of 10 and age groups from 2 years of age through 16 years of age were multiplied by a factor of 3.

The results provided in Table 1 indicate that the maximum incremental cancer risk at all MERs would not exceed the South Coast AQMD threshold of 10 in one million. For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for all sensitive receptors. Therefore, cancer risk and chronic non-carcinogenic hazards are less than significant.

2. REFERENCES

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Attachment A. CalEEMod Emission Outputs and Risk Calculations

Receptor Risl Residential MER

Receptor Information

HRA Receptor		Receptor Risk Information					
Name	Type	Start Age	Daily Breathing Rate	Fraction of Time at Home	Averaging Time	Inhalation Absorption Factor	Pollutant
Residential MER	Residential	3rd Trimester	24-Hour	Yes	70 Years	1	Diesel Particulate Matter

Note: MER = Maximally Exposed Receptor

Schedule and Duration

Activity Schedule Information							
Year	Start Date	End Date	Workday Duration	Seconds/Day	Construction Workday	Annual Workdays	Annual Duration
2026	8/3/2026	12/31/2026	8 Hours/Day	28,800	109	261	0.42
						Total:	0.42

Assumptions:

Exposure Duration (ED) is derived by dividing project workdays by total annual workdays (261), assuming 5 workdays a week.

Pollutant Emission Rates and Concentrations

Year	Emission Rates		AERMOD Pollutant		Calculated Pollutant Concentration		
	On-site Emission Rate (lbs/day)	Off-site Emission Rate (lbs/day)	On-site Concentration	Off-site Concentration	On-site Concentration	Off-site Concentration	Total Concentration (ug/m3)
2026	6.86E-05	1.26E-03	9.11E+00	7.50E-01	9.85E-06	1.01E-06	1.09E-05
	Off-site Haul Distance:	1.36	miles			Hazard Index:	0.00
	Default Haul Distance:	20	miles				

Exposure Durations

Year	Age-Dependent Exposure Duration						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total Duration
2026	0.25	0.17	0.00	0.00	0.00	0.00	0.42
Total	0.25	0.17	0.00	0.00	0.00	0.00	0.42

Daily Breathing Rates

Year	DBR						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total
2026	361	1090					1451

Receptor Risk Results

Year	Risk Per Individual By Age						Calculated Risk
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Risk/Million
2026	1.26E-10	2.54E-10					0.00
						TOTAL RISK:	0.00

Note: Results showing "0.00" represent values less than 0.005.

Receptor Risl Worker MER

Receptor Information

HRA Receptor		Receptor Risk Information					
Name	Type	Age Bin	Daily Breathing Rate	Fraction of Time at Home	Averaging Time	Inhalation Absorption Factor	Pollutant
Worker MER	Worker	16>30 Years	8-Hour	No	70 Years	1	Diesel Particulate Matter

Note: MER = Maximally Exposed Receptor

Schedule and Duration

Activity Schedule Information							
Year	Start Date	End Date	Workday Duration	Seconds/Day	Construction Workday	Annual Workdays	Annual Duration
2026	8/3/2026	12/31/2026	8 Hours/Day	28,800	109	261	0.42
						Total:	0.42

Assumptions:

Exposure Duration (ED) is derived by dividing project workdays by total annual workdays (261), assuming 5 workdays a week.

Pollutant Emission Rates and Concentrations

Year	Emission Rates		AERMOD Pollutant		Calculated Pollutant Concentration		
	On-site Emission Rate (lbs/day)	Off-site Emission Rate (lbs/day)	On-site Concentration	Off-site Concentration	On-site Concentration	Off-site Concentration	Total Concentration (ug/m3)
2026	6.86E-05	1.26E-03	1.43E+00	2.21E+00	1.55E-06	2.97E-06	4.52E-06
	Off-site Haul Distance:	1.36	miles			Hazard Index:	0.00
	Default Haul Distance:	20	miles				

Exposure Durations

Year	Age-Dependent Exposure Duration						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total Duration
2026	0.00	0.00	0.00	0.00	0.42	0.00	0.42
Total	0.00	0.00	0.00	0.00	0.42	0.00	0.42

Daily Breathing Rates

Year	DBR						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total
2026					240		240

Receptor Risk Results

Year	Risk Per Individual By Age						Calculated Risk
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Risk/Million
2026					4.88E-12		0.00
						TOTAL RISK:	0.00

Note: Results showing "0.00" represent values less than 0.005.

Receptor Risl Student MER

Receptor Information

HRA Receptor		Receptor Risk Information					
Name	Type	Age Bin	Daily Breathing Rate	Fraction of Time at Home	Averaging Time	Inhalation Absorption Factor	Pollutant
Student MER	High School	9>16 Years	8-Hour	No	70 Years	1	Diesel Particulate Matter

Note: MER = Maximally Exposed Receptor

Schedule and Duration

Activity Schedule Information							
Year	Start Date	End Date	Workday Duration	Seconds/Day	Construction Workday	Annual Workdays	Annual Duration
2026	8/3/2026	12/31/2026	8 Hours/Day	28,800	109	261	0.42
						Total:	0.42

Assumptions:

Exposure Duration (ED) is derived by dividing project workdays by total annual workdays (261), assuming 5 workdays a week.

Pollutant Emission Rates and Concentrations

Year	Emission Rates		AERMOD Pollutant		Calculated Pollutant Concentration		
	On-site Emission Rate (lbs/day)	Off-site Emission Rate (lbs/day)	On-site Concentration	Off-site Concentration	On-site Concentration	Off-site Concentration	Total Concentration (ug/m3)
2026	6.86E-05	1.26E-03	8.65E+00	1.88E+00	9.36E-06	2.53E-06	1.19E-05
	Off-site Haul Distance:	1.36	miles			Hazard Index:	0.00
	Default Haul Distance:	20	miles				

Exposure Durations

Year	Age-Dependent Exposure Duration						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total Duration
2026	0.00	0.00	0.00	0.42	0.00	0.00	0.42
Total	0.00	0.00	0.00	0.42	0.00	0.00	0.42

Daily Breathing Rates

Year	DBR						
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Total
2026				520			520

Receptor Risk Results

Year	Risk Per Individual By Age						Calculated Risk
	Age Bin: 3rd Trimester>0 Years	Age Bin: 0>2 Years	Age Bin: 2>9 Years	Age Bin: 9>16 Years	Age Bin: 16>30 Years	Age Bin: 30>70+ Years	Risk/Million
2026				6.00E-11			0.00
						TOTAL RISK:	0.00

Note: Results showing "0.00" represent values less than 0.005.

Attachment B. Air Dispersion Model Output

Control Pathway

Dispersion Options

Titles

Sonora High School
Construction Health Risk Assessment

Dispersion Options

☐ Regulatory Default ☒ Non-Default Options

☒ Flat & Elevated Terrain
☐ No Stack-Tip Downwash (NOSTD)
☐ Run in Screening Mode
☐ Conversion of NOx to NO2 (OLM or PVMRM)
☐ No Checks for Non-Sequential Met Data
☒ Fast All Sources (FASTALL)
☐ Fast Area Sources (FASTAREA)
☐ Optimized Area Source Plume Depletion
☐ Gas Deposition

BETA Options:

☐ Capped and Horizontal Stack Releases
☐ Adjusted Friction Velocity (u*) in AERMET (ADJ_U*)
☐ Low Wind Options

☐ SCIM (Sampled Chronological Input Model)
☐ Ignore Urban Night / Daytime Transition (NOURBTRAN)

Dispersion Coefficient

Urban
Population:
Name (Optional):
Roughness Length:

Output Type

☒ Concentration
☐ Total Deposition (Dry & Wet)
☐ Dry Deposition
☐ Wet Deposition

Plume Depletion

☐ Dry Removal
☐ Wet Removal

Output Warnings

☐ No Output Warnings
☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24

☐ Month ☒ Period ☐ Annual

Exponential Decay

☐ Yes ☒ No

Terrain Height Options

☐ Flat ☒ Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

☐ Yes ☒ No

Default Height = 0.00 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: FHS-08 Sonora HS.err

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: Met Data\KFUL_V11_trimmed.sfc
Format Type: Default AERMET format

Profile Met Data

Filename: Met Data\KFUL_V11_trimmed.PFL
Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 26.22 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2018			
Upper Air		2018			

Data Period

Data Period to Process

Start Date: 1/1/2018 Start Hour: 1 End Date: 12/31/2023 End Hour: 24

Wind Speed Categories

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

Source Pathway - Source Inputs

Polygon Area Sources

Source Type: AREA POLY

Source: SITE (On-site Construction)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
111.80	4.15	0.00001	1.93	13	414164.90	3754764.40
		0.00001			414394.78	3754762.93
		0.00001			414394.78	3754750.19
		0.00001			414383.01	3754741.37
		0.00001			414383.01	3754689.90
		0.00001			414366.84	3754672.26
		0.00001			414365.86	3754658.53
		0.00001			414351.16	3754657.06
		0.00001			414346.74	3754402.68
		0.00001			414213.92	3754403.17
		0.00001			414213.43	3754377.19
		0.00001			414184.02	3754377.19
		0.00001			414160.49	3754373.76

Source Pathway - Source Inputs

Line Volume Sources

Source Type: LINE VOLUME

Source: ROUTE1 (Off-site hauling route 1)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
18.00	0.45314		414396.44	3754757.22	113.69	4.15
			414565.38	3754755.94	113.88	4.15
			414568.36	3754988.37	116.26	4.15
			413980.92	3754992.78	114.04	4.15

Source Type: LINE VOLUME

Source: ROUTE2 (Off-site hauling route 2)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
13.00	0.54686		414215.11	3754383.86	108.93	4.15
			414361.78	3754381.45	109.86	4.15
			414373.53	3754387.17	109.93	4.15
			414525.32	3754386.87	110.81	4.15
			414538.87	3754403.13	110.87	4.15
			414560.25	3754402.83	110.91	4.15
			414560.91	3754182.71	108.68	4.15
			413941.90	3754188.59	110.18	4.15

Source Pathway - Source Inputs

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE1	L0000148	414405.44	3754757.15	113.51	4.15	0.00824	18.00		8.37	3.86
	L0000149	414423.44	3754757.01	113.69	4.15	0.00824	18.00		8.37	3.86
	L0000150	414441.44	3754756.87	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000151	414459.44	3754756.74	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000152	414477.44	3754756.60	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000153	414495.44	3754756.47	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000154	414513.44	3754756.33	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000155	414531.44	3754756.19	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000156	414549.44	3754756.06	113.75	4.15	0.00824	18.00		8.37	3.86
	L0000157	414565.40	3754758.00	113.77	4.15	0.00824	18.00		8.37	3.86
	L0000158	414565.63	3754775.99	113.96	4.15	0.00824	18.00		8.37	3.86
	L0000159	414565.86	3754793.99	114.16	4.15	0.00824	18.00		8.37	3.86
	L0000160	414566.10	3754811.99	114.35	4.15	0.00824	18.00		8.37	3.86
	L0000161	414566.33	3754829.99	114.55	4.15	0.00824	18.00		8.37	3.86
	L0000162	414566.56	3754847.99	114.74	4.15	0.00824	18.00		8.37	3.86
	L0000163	414566.79	3754865.99	114.94	4.15	0.00824	18.00		8.37	3.86
	L0000164	414567.02	3754883.99	115.13	4.15	0.00824	18.00		8.37	3.86
	L0000165	414567.25	3754901.98	115.33	4.15	0.00824	18.00		8.37	3.86
	L0000166	414567.48	3754919.98	115.52	4.15	0.00824	18.00		8.37	3.86
	L0000167	414567.71	3754937.98	115.72	4.15	0.00824	18.00		8.37	3.86
	L0000168	414567.94	3754955.98	115.91	4.15	0.00824	18.00		8.37	3.86
	L0000169	414568.17	3754973.98	116.11	4.15	0.00824	18.00		8.37	3.86
	L0000170	414564.75	3754988.40	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000171	414546.75	3754988.53	116.26	4.15	0.00824	18.00		8.37	3.86

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE1	L0000172	414528.75	3754988.67	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000173	414510.75	3754988.80	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000174	414492.75	3754988.94	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000175	414474.75	3754989.07	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000176	414456.75	3754989.21	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000177	414438.75	3754989.34	116.26	4.15	0.00824	18.00		8.37	3.86
	L0000178	414420.75	3754989.48	116.12	4.15	0.00824	18.00		8.37	3.86
	L0000179	414402.75	3754989.61	115.88	4.15	0.00824	18.00		8.37	3.86
	L0000180	414384.75	3754989.75	115.65	4.15	0.00824	18.00		8.37	3.86
	L0000181	414366.75	3754989.88	115.42	4.15	0.00824	18.00		8.37	3.86
	L0000182	414348.75	3754990.02	115.26	4.15	0.00824	18.00		8.37	3.86
	L0000183	414330.76	3754990.15	115.26	4.15	0.00824	18.00		8.37	3.86
	L0000184	414312.76	3754990.29	115.26	4.15	0.00824	18.00		8.37	3.86
	L0000185	414294.76	3754990.42	115.26	4.15	0.00824	18.00		8.37	3.86
	L0000186	414276.76	3754990.56	115.25	4.15	0.00824	18.00		8.37	3.86
	L0000187	414258.76	3754990.69	115.01	4.15	0.00824	18.00		8.37	3.86
	L0000188	414240.76	3754990.83	114.78	4.15	0.00824	18.00		8.37	3.86
	L0000189	414222.76	3754990.96	114.54	4.15	0.00824	18.00		8.37	3.86
	L0000190	414204.76	3754991.10	114.31	4.15	0.00824	18.00		8.37	3.86
	L0000191	414186.76	3754991.24	114.08	4.15	0.00824	18.00		8.37	3.86
	L0000192	414168.76	3754991.37	113.84	4.15	0.00824	18.00		8.37	3.86
	L0000193	414150.76	3754991.51	113.61	4.15	0.00824	18.00		8.37	3.86
	L0000194	414132.76	3754991.64	113.37	4.15	0.00824	18.00		8.37	3.86
	L0000195	414114.76	3754991.78	113.26	4.15	0.00824	18.00		8.37	3.86
	L0000196	414096.76	3754991.91	113.26	4.15	0.00824	18.00		8.37	3.86

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE1	L0000197	414078.76	3754992.05	113.26	4.15	0.00824	18.00		8.37	3.86
	L0000198	414060.76	3754992.18	113.25	4.15	0.00824	18.00		8.37	3.86
	L0000199	414042.76	3754992.32	113.29	4.15	0.00824	18.00		8.37	3.86
	L0000200	414024.76	3754992.45	113.47	4.15	0.00824	18.00		8.37	3.86
	L0000201	414006.76	3754992.59	113.64	4.15	0.00824	18.00		8.37	3.86
	L0000202	413988.76	3754992.72	113.81	4.15	0.00824	18.00		8.37	3.86

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE2	L0000203	414221.61	3754383.75	108.69	4.15	0.00594	13.00		6.05	3.86
	L0000204	414234.61	3754383.54	108.69	4.15	0.00594	13.00		6.05	3.86
	L0000205	414247.61	3754383.32	108.68	4.15	0.00594	13.00		6.05	3.86
	L0000206	414260.61	3754383.11	108.68	4.15	0.00594	13.00		6.05	3.86
	L0000207	414273.60	3754382.90	108.70	4.15	0.00594	13.00		6.05	3.86
	L0000208	414286.60	3754382.68	108.87	4.15	0.00594	13.00		6.05	3.86
	L0000209	414299.60	3754382.47	109.04	4.15	0.00594	13.00		6.05	3.86
	L0000210	414312.60	3754382.25	109.20	4.15	0.00594	13.00		6.05	3.86
	L0000211	414325.60	3754382.04	109.37	4.15	0.00594	13.00		6.05	3.86
	L0000212	414338.60	3754381.83	109.54	4.15	0.00594	13.00		6.05	3.86
	L0000213	414351.59	3754381.61	109.69	4.15	0.00594	13.00		6.05	3.86
	L0000214	414364.31	3754382.68	109.75	4.15	0.00594	13.00		6.05	3.86
	L0000215	414376.27	3754387.16	109.83	4.15	0.00594	13.00		6.05	3.86
	L0000216	414389.27	3754387.14	109.87	4.15	0.00594	13.00		6.05	3.86
	L0000217	414402.27	3754387.11	109.92	4.15	0.00594	13.00		6.05	3.86
	L0000218	414415.27	3754387.09	109.96	4.15	0.00594	13.00		6.05	3.86
	L0000219	414428.27	3754387.06	110.02	4.15	0.00594	13.00		6.05	3.86

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE2	L0000220	414441.27	3754387.03	110.14	4.15	0.00594	13.00		6.05	3.86
	L0000221	414454.27	3754387.01	110.27	4.15	0.00594	13.00		6.05	3.86
	L0000222	414467.27	3754386.98	110.40	4.15	0.00594	13.00		6.05	3.86
	L0000223	414480.27	3754386.96	110.52	4.15	0.00594	13.00		6.05	3.86
	L0000224	414493.27	3754386.93	110.65	4.15	0.00594	13.00		6.05	3.86
	L0000225	414506.27	3754386.91	110.75	4.15	0.00594	13.00		6.05	3.86
	L0000226	414519.27	3754386.88	110.75	4.15	0.00594	13.00		6.05	3.86
	L0000227	414529.77	3754392.21	110.81	4.15	0.00594	13.00		6.05	3.86
	L0000228	414538.09	3754402.20	110.92	4.15	0.00594	13.00		6.05	3.86
	L0000229	414550.65	3754402.97	110.93	4.15	0.00594	13.00		6.05	3.86
	L0000230	414560.26	3754399.43	110.89	4.15	0.00594	13.00		6.05	3.86
	L0000231	414560.30	3754386.43	110.75	4.15	0.00594	13.00		6.05	3.86
	L0000232	414560.34	3754373.43	110.61	4.15	0.00594	13.00		6.05	3.86
	L0000233	414560.38	3754360.43	110.47	4.15	0.00594	13.00		6.05	3.86
	L0000234	414560.42	3754347.43	110.33	4.15	0.00594	13.00		6.05	3.86
	L0000235	414560.46	3754334.43	110.19	4.15	0.00594	13.00		6.05	3.86
	L0000236	414560.50	3754321.43	110.05	4.15	0.00594	13.00		6.05	3.86
	L0000237	414560.53	3754308.43	109.90	4.15	0.00594	13.00		6.05	3.86
	L0000238	414560.57	3754295.43	109.76	4.15	0.00594	13.00		6.05	3.86
	L0000239	414560.61	3754282.43	109.62	4.15	0.00594	13.00		6.05	3.86
	L0000240	414560.65	3754269.43	109.48	4.15	0.00594	13.00		6.05	3.86
	L0000241	414560.69	3754256.43	109.34	4.15	0.00594	13.00		6.05	3.86
	L0000242	414560.73	3754243.43	109.20	4.15	0.00594	13.00		6.05	3.86
	L0000243	414560.77	3754230.43	109.06	4.15	0.00594	13.00		6.05	3.86
	L0000244	414560.80	3754217.43	108.92	4.15	0.00594	13.00		6.05	3.86

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE2	L0000245	414560.84	3754204.43	108.78	4.15	0.00594	13.00		6.05	3.86
	L0000246	414560.88	3754191.43	108.64	4.15	0.00594	13.00		6.05	3.86
	L0000247	414556.63	3754182.75	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000248	414543.63	3754182.88	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000249	414530.63	3754183.00	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000250	414517.63	3754183.12	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000251	414504.63	3754183.25	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000252	414491.63	3754183.37	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000253	414478.63	3754183.49	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000254	414465.63	3754183.62	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000255	414452.63	3754183.74	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000256	414439.63	3754183.86	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000257	414426.63	3754183.99	108.54	4.15	0.00594	13.00		6.05	3.86
	L0000258	414413.64	3754184.11	108.40	4.15	0.00594	13.00		6.05	3.86
	L0000259	414400.64	3754184.23	108.24	4.15	0.00594	13.00		6.05	3.86
	L0000260	414387.64	3754184.36	108.07	4.15	0.00594	13.00		6.05	3.86
	L0000261	414374.64	3754184.48	107.90	4.15	0.00594	13.00		6.05	3.86
	L0000262	414361.64	3754184.60	107.73	4.15	0.00594	13.00		6.05	3.86
	L0000263	414348.64	3754184.73	107.56	4.15	0.00594	13.00		6.05	3.86
	L0000264	414335.64	3754184.85	107.55	4.15	0.00594	13.00		6.05	3.86
	L0000265	414322.64	3754184.97	107.55	4.15	0.00594	13.00		6.05	3.86
	L0000266	414309.64	3754185.10	107.55	4.15	0.00594	13.00		6.05	3.86
	L0000267	414296.64	3754185.22	107.55	4.15	0.00594	13.00		6.05	3.86
	L0000268	414283.64	3754185.34	107.55	4.15	0.00594	13.00		6.05	3.86
	L0000269	414270.64	3754185.47	107.55	4.15	0.00594	13.00		6.05	3.86

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROUTE2	L0000270	414257.64	3754185.59	107.62	4.15	0.00594	13.00		6.05	3.86
	L0000271	414244.64	3754185.71	107.70	4.15	0.00594	13.00		6.05	3.86
	L0000272	414231.64	3754185.84	107.77	4.15	0.00594	13.00		6.05	3.86
	L0000273	414218.64	3754185.96	107.85	4.15	0.00594	13.00		6.05	3.86
	L0000274	414205.64	3754186.08	107.93	4.15	0.00594	13.00		6.05	3.86
	L0000275	414192.65	3754186.21	108.01	4.15	0.00594	13.00		6.05	3.86
	L0000276	414179.65	3754186.33	108.10	4.15	0.00594	13.00		6.05	3.86
	L0000277	414166.65	3754186.45	108.19	4.15	0.00594	13.00		6.05	3.86
	L0000278	414153.65	3754186.58	108.28	4.15	0.00594	13.00		6.05	3.86
	L0000279	414140.65	3754186.70	108.37	4.15	0.00594	13.00		6.05	3.86
	L0000280	414127.65	3754186.82	108.47	4.15	0.00594	13.00		6.05	3.86
	L0000281	414114.65	3754186.95	108.57	4.15	0.00594	13.00		6.05	3.86
	L0000282	414101.65	3754187.07	108.74	4.15	0.00594	13.00		6.05	3.86
	L0000283	414088.65	3754187.19	108.91	4.15	0.00594	13.00		6.05	3.86
	L0000284	414075.65	3754187.32	109.07	4.15	0.00594	13.00		6.05	3.86
	L0000285	414062.65	3754187.44	109.24	4.15	0.00594	13.00		6.05	3.86
	L0000286	414049.65	3754187.56	109.41	4.15	0.00594	13.00		6.05	3.86
	L0000287	414036.65	3754187.69	109.56	4.15	0.00594	13.00		6.05	3.86
	L0000288	414023.65	3754187.81	109.64	4.15	0.00594	13.00		6.05	3.86
	L0000289	414010.65	3754187.94	109.72	4.15	0.00594	13.00		6.05	3.86
	L0000290	413997.65	3754188.06	109.79	4.15	0.00594	13.00		6.05	3.86
	L0000291	413984.65	3754188.18	109.87	4.15	0.00594	13.00		6.05	3.86
	L0000292	413971.66	3754188.31	109.94	4.15	0.00594	13.00		6.05	3.86
	L0000293	413958.66	3754188.43	110.05	4.15	0.00594	13.00		6.05	3.86
	L0000294	413945.66	3754188.55	110.22	4.15	0.00594	13.00		6.05	3.86

Source Pathway - Source Inputs

Receptor Pathway

Receptor Networks

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

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	414085.57	3755034.20	R	113.71	
2	414110.57	3755034.20	R	113.71	
3	414135.57	3755034.20	R	113.87	
4	414160.57	3755034.20	R	114.19	
5	414160.57	3755059.20	R	114.46	
6	414185.57	3755034.20	R	114.52	
7	414185.57	3755059.20	R	114.79	
8	414210.57	3755034.20	R	114.85	
9	414210.57	3755059.20	R	115.12	
10	414235.57	3755034.20	R	115.18	
11	414235.57	3755059.20	R	115.44	
12	414260.57	3755034.20	R	115.50	
13	414260.57	3755059.20	R	115.77	
14	414285.57	3755034.20	R	115.73	
15	414285.57	3755059.20	R	116.00	
16	414310.57	3755034.20	R	115.73	
17	414310.57	3755059.20	R	116.00	
18	414335.57	3755034.20	R	115.74	
19	414335.57	3755059.20	R	116.01	
20	414360.57	3755034.20	R	115.81	
21	414360.57	3755059.20	R	116.08	
22	414385.57	3755034.20	R	116.14	
23	414385.57	3755059.20	R	116.40	
24	414410.57	3755034.20	R	116.46	
25	414410.57	3755059.20	R	116.72	
26	414435.57	3755034.20	R	116.75	
27	414460.57	3755034.20	R	116.75	
28	413881.56	3754478.28	R	112.76	
29	413881.56	3754503.28	R	113.03	
30	413881.56	3754528.28	R	113.09	

31	413881.56	3754553.28	R	113.09
32	413881.56	3754578.28	R	113.09
33	413881.56	3754603.28	R	113.10
34	413881.56	3754628.28	R	113.10
35	413881.56	3754653.28	R	113.10
36	413881.56	3754678.28	R	113.11
37	413881.56	3754703.28	R	113.22
38	413881.56	3754728.28	R	113.49
39	413881.56	3754753.28	R	113.77
40	413881.56	3754778.28	R	114.04
41	413881.56	3754803.28	R	114.12
42	413906.56	3754478.28	R	112.44
43	413906.56	3754503.28	R	112.71
44	413906.56	3754528.28	R	112.76
45	413906.56	3754553.28	R	112.77
46	413906.56	3754578.28	R	112.77
47	413906.56	3754603.28	R	112.78
48	413906.56	3754628.28	R	112.84
49	413906.56	3754653.28	R	112.91
50	413906.56	3754678.28	R	112.97
51	413906.56	3754703.28	R	113.09
52	413906.56	3754728.28	R	113.30
53	413906.56	3754753.28	R	113.52
54	413906.56	3754778.28	R	113.73
55	413906.56	3754803.28	R	113.80
56	413906.56	3754828.28	R	113.80
57	413906.56	3754853.28	R	113.80
58	413931.56	3754478.28	R	112.11
59	413931.56	3754503.28	R	112.39
60	413931.56	3754528.28	R	112.44
61	413931.56	3754553.28	R	112.44
62	413931.56	3754578.28	R	112.44
63	413931.56	3754603.28	R	112.47
64	413931.56	3754628.28	R	112.62
65	413931.56	3754653.28	R	112.77
66	413931.56	3754678.28	R	112.92
67	413931.56	3754703.28	R	113.05
68	413931.56	3754728.28	R	113.18

69	413931.56	3754753.28	R	113.31
70	413931.56	3754778.28	R	113.43
71	413931.56	3754803.28	R	113.47
72	413931.56	3754828.28	R	113.47
73	413931.56	3754853.28	R	113.48
74	413931.56	3754878.28	R	113.49
75	413931.56	3754903.28	R	113.76
76	413931.56	3754928.28	R	114.04
77	413956.56	3754453.28	R	111.52
78	413956.56	3754478.28	R	111.79
79	413956.56	3754503.28	R	112.07
80	413956.56	3754528.28	R	112.11
81	413956.56	3754553.28	R	112.12
82	413956.56	3754578.28	R	112.12
83	413956.56	3754603.28	R	112.15
84	413956.56	3754628.28	R	112.39
85	413956.56	3754653.28	R	112.63
86	413956.56	3754678.28	R	112.87
87	413956.56	3754703.28	R	113.02
88	413956.56	3754728.28	R	113.05
89	413956.56	3754753.28	R	113.09
90	413956.56	3754778.28	R	113.13
91	413956.56	3754803.28	R	113.15
92	413956.56	3754828.28	R	113.15
93	413956.56	3754853.28	R	113.15
94	413956.56	3754878.28	R	113.17
95	413956.56	3754903.28	R	113.44
96	413956.56	3754928.28	R	113.71
97	413981.56	3754453.28	R	111.32
98	413981.56	3754478.28	R	111.54
99	413981.56	3754503.28	R	111.75
100	413981.56	3754528.28	R	111.84
101	413981.56	3754553.28	R	111.90
102	413981.56	3754578.28	R	111.95
103	413981.56	3754603.28	R	112.03
104	413981.56	3754628.28	R	112.25
105	413981.56	3754653.28	R	112.47
106	413981.56	3754678.28	R	112.69

107	413981.56	3754703.28	R	112.81
108	413981.56	3754728.28	R	112.81
109	413981.56	3754753.28	R	112.82
110	413981.56	3754778.28	R	112.82
111	413981.56	3754803.28	R	112.86
112	413981.56	3754828.28	R	112.91
113	413981.56	3754853.28	R	112.96
114	413981.56	3754878.28	R	113.01
115	413981.56	3754903.28	R	113.24
116	413981.56	3754928.28	R	113.46
117	414006.56	3754428.28	R	111.07
118	414006.56	3754453.28	R	111.19
119	414006.56	3754478.28	R	111.32
120	414006.56	3754503.28	R	111.44
121	414006.56	3754528.28	R	111.59
122	414006.56	3754553.28	R	111.73
123	414006.56	3754578.28	R	111.88
124	414006.56	3754603.28	R	112.02
125	414006.56	3754628.28	R	112.15
126	414006.56	3754653.28	R	112.28
127	414006.56	3754678.28	R	112.41
128	414006.56	3754703.28	R	112.49
129	414006.56	3754728.28	R	112.49
130	414006.56	3754753.28	R	112.49
131	414006.56	3754778.28	R	112.49
132	414006.56	3754803.28	R	112.60
133	414006.56	3754828.28	R	112.74
134	414006.56	3754853.28	R	112.87
135	414006.56	3754878.28	R	113.01
136	414006.56	3754903.28	R	113.15
137	414006.56	3754928.28	R	113.29
138	414031.56	3754428.28	R	111.02
139	414031.56	3754453.28	R	111.06
140	414031.56	3754478.28	R	111.09
141	414031.56	3754503.28	R	111.13
142	414031.56	3754528.28	R	111.34
143	414031.56	3754553.28	R	111.57
144	414031.56	3754578.28	R	111.81

145	414031.56	3754603.28	R	112.01
146	414031.56	3754628.28	R	112.05
147	414031.56	3754653.28	R	112.09
148	414031.56	3754678.28	R	112.14
149	414031.56	3754703.28	R	112.16
150	414031.56	3754728.28	R	112.16
151	414031.56	3754753.28	R	112.17
152	414031.56	3754778.28	R	112.17
153	414031.56	3754803.28	R	112.34
154	414031.56	3754828.28	R	112.57
155	414031.56	3754853.28	R	112.79
156	414031.56	3754878.28	R	113.00
157	414031.56	3754903.28	R	113.05
158	414031.56	3754928.28	R	113.11
159	414056.56	3754403.28	R	110.68
160	414056.56	3754428.28	R	110.80
161	414056.56	3754453.28	R	110.81
162	414056.56	3754478.28	R	110.81
163	414056.56	3754503.28	R	110.81
164	414056.56	3754528.28	R	111.05
165	414056.56	3754553.28	R	111.32
166	414056.56	3754578.28	R	111.60
167	414056.56	3754603.28	R	111.82
168	414056.56	3754628.28	R	111.83
169	414056.56	3754653.28	R	111.83
170	414056.56	3754678.28	R	111.83
171	414056.56	3754703.28	R	111.86
172	414056.56	3754728.28	R	111.90
173	414056.56	3754753.28	R	111.95
174	414056.56	3754778.28	R	111.99
175	414056.56	3754803.28	R	112.21
176	414056.56	3754828.28	R	112.48
177	414056.56	3754853.28	R	112.75
178	414056.56	3754878.28	R	113.00
179	414056.56	3754903.28	R	113.00
180	414056.56	3754928.28	R	113.00
181	414081.56	3754403.28	R	110.36
182	414081.56	3754428.28	R	110.48

183	414081.56	3754453.28	R	110.48
184	414081.56	3754478.28	R	110.49
185	414081.56	3754503.28	R	110.49
186	414081.56	3754528.28	R	110.73
187	414081.56	3754553.28	R	111.00
188	414081.56	3754578.28	R	111.28
189	414081.56	3754603.28	R	111.50
190	414081.56	3754628.28	R	111.50
191	414081.56	3754653.28	R	111.51
192	414081.56	3754678.28	R	111.51
193	414081.56	3754703.28	R	111.58
194	414081.56	3754728.28	R	111.71
195	414081.56	3754753.28	R	111.84
196	414081.56	3754778.28	R	111.97
197	414081.56	3754803.28	R	112.21
198	414081.56	3754828.28	R	112.48
199	414081.56	3754853.28	R	112.75
200	414081.56	3754878.28	R	113.00
201	414081.56	3754903.28	R	113.00
202	414081.56	3754928.28	R	113.00
203	414106.56	3754378.28	R	109.77
204	414106.56	3754403.28	R	110.04
205	414106.56	3754428.28	R	110.16
206	414106.56	3754453.28	R	110.16
207	414106.56	3754478.28	R	110.16
208	414106.56	3754503.28	R	110.16
209	414106.56	3754528.28	R	110.41
210	414106.56	3754553.28	R	110.68
211	414106.56	3754578.28	R	110.95
212	414106.56	3754603.28	R	111.18
213	414106.56	3754628.28	R	111.18
214	414106.56	3754653.28	R	111.18
215	414106.56	3754678.28	R	111.18
216	414106.56	3754703.28	R	111.30
217	414106.56	3754728.28	R	111.52
218	414106.56	3754753.28	R	111.74
219	414106.56	3754778.28	R	111.96
220	414106.56	3754803.28	R	112.22

221	414106.56	3754828.28	R	112.49
222	414106.56	3754853.28	R	112.76
223	414106.56	3754878.28	R	113.00
224	414106.56	3754903.28	R	113.00
225	414106.56	3754928.28	R	113.00
226	414131.56	3754378.28	R	109.44
227	414131.56	3754403.28	R	109.72
228	414131.56	3754428.28	R	109.86
229	414131.56	3754453.28	R	109.91
230	414131.56	3754478.28	R	109.95
231	414131.56	3754503.28	R	110.00
232	414131.56	3754528.28	R	110.20
233	414131.56	3754553.28	R	110.43
234	414131.56	3754578.28	R	110.66
235	414131.56	3754603.28	R	110.86
236	414131.56	3754628.28	R	110.90
237	414131.56	3754653.28	R	110.94
238	414131.56	3754678.28	R	110.98
239	414131.56	3754703.28	R	111.14
240	414131.56	3754728.28	R	111.41
241	414131.56	3754753.28	R	111.68
242	414131.56	3754778.28	R	111.95
243	414131.56	3754803.28	R	112.22
244	414131.56	3754828.28	R	112.49
245	414131.56	3754853.28	R	112.76
246	414131.56	3754878.28	R	113.00
247	414131.56	3754903.28	R	113.03
248	414131.56	3754928.28	R	113.06
249	414131.56	3754953.28	R	113.09
250	414156.56	3754378.28	R	109.12
251	414156.56	3754403.28	R	109.39
252	414156.56	3754428.28	R	109.59
253	414156.56	3754453.28	R	109.72
254	414156.56	3754478.28	R	109.86
255	414156.56	3754503.28	R	109.99
256	414156.56	3754528.28	R	110.13
257	414156.56	3754553.28	R	110.27
258	414156.56	3754578.28	R	110.41

259	414156.56	3754603.28	R	110.55
260	414156.56	3754628.28	R	110.68
261	414156.56	3754653.28	R	110.81
262	414156.56	3754678.28	R	110.94
263	414156.56	3754703.28	R	111.14
264	414156.56	3754728.28	R	111.41
265	414156.56	3754753.28	R	111.68
266	414156.56	3754778.28	R	111.95
267	414156.56	3754803.28	R	112.22
268	414156.56	3754828.28	R	112.49
269	414156.56	3754853.28	R	112.76
270	414156.56	3754878.28	R	113.01
271	414156.56	3754903.28	R	113.13
272	414156.56	3754928.28	R	113.25
273	414156.56	3754953.28	R	113.36
274	414181.56	3754778.28	R	111.95
275	414181.56	3754803.28	R	112.22
276	414181.56	3754828.28	R	112.49
277	414181.56	3754853.28	R	112.76
278	414181.56	3754878.28	R	113.03
279	414181.56	3754903.28	R	113.23
280	414181.56	3754928.28	R	113.44
281	414181.56	3754953.28	R	113.64
282	414206.56	3754778.28	R	112.06
283	414206.56	3754803.28	R	112.32
284	414206.56	3754828.28	R	112.59
285	414206.56	3754853.28	R	112.86
286	414206.56	3754878.28	R	113.13
287	414206.56	3754903.28	R	113.39
288	414206.56	3754928.28	R	113.66
289	414206.56	3754953.28	R	113.93
290	414231.56	3754778.28	R	112.38
291	414231.56	3754803.28	R	112.65
292	414231.56	3754828.28	R	112.92
293	414231.56	3754853.28	R	113.19
294	414231.56	3754878.28	R	113.45
295	414231.56	3754903.28	R	113.72
296	414231.56	3754928.28	R	113.99

297	414231.56	3754953.28	R	114.26
298	414256.56	3754778.28	R	112.71
299	414256.56	3754803.28	R	112.98
300	414256.56	3754828.28	R	113.25
301	414256.56	3754853.28	R	113.51
302	414256.56	3754878.28	R	113.78
303	414256.56	3754903.28	R	114.05
304	414256.56	3754928.28	R	114.32
305	414256.56	3754953.28	R	114.58
306	414281.56	3754778.28	R	112.96
307	414281.56	3754803.28	R	113.23
308	414281.56	3754828.28	R	113.50
309	414281.56	3754853.28	R	113.77
310	414281.56	3754878.28	R	114.04
311	414281.56	3754903.28	R	114.31
312	414281.56	3754928.28	R	114.58
313	414281.56	3754953.28	R	114.86
314	414306.56	3754778.28	R	112.98
315	414306.56	3754803.28	R	113.23
316	414306.56	3754828.28	R	113.51
317	414306.56	3754853.28	R	113.78
318	414306.56	3754878.28	R	114.05
319	414306.56	3754903.28	R	114.32
320	414306.56	3754928.28	R	114.59
321	414306.56	3754953.28	R	114.86
322	414331.56	3754778.28	R	112.99
323	414331.56	3754803.28	R	113.24
324	414331.56	3754828.28	R	113.51
325	414331.56	3754853.28	R	113.78
326	414331.56	3754878.28	R	114.05
327	414331.56	3754903.28	R	114.32
328	414331.56	3754928.28	R	114.59
329	414331.56	3754953.28	R	114.86
330	414356.56	3754778.28	R	113.05
331	414356.56	3754803.28	R	113.29
332	414356.56	3754828.28	R	113.55
333	414356.56	3754853.28	R	113.82
334	414356.56	3754878.28	R	114.09

335	414356.56	3754903.28	R	114.36
336	414356.56	3754928.28	R	114.62
337	414356.56	3754953.28	R	114.89
338	414381.56	3754778.28	R	113.36
339	414381.56	3754803.28	R	113.61
340	414381.56	3754828.28	R	113.88
341	414381.56	3754853.28	R	114.15
342	414381.56	3754878.28	R	114.42
343	414381.56	3754903.28	R	114.68
344	414381.56	3754928.28	R	114.95
345	414381.56	3754953.28	R	115.22
346	414406.56	3754778.28	R	113.68
347	414406.56	3754803.28	R	113.94
348	414406.56	3754828.28	R	114.21
349	414406.56	3754853.28	R	114.48
350	414406.56	3754878.28	R	114.74
351	414406.56	3754903.28	R	115.01
352	414406.56	3754928.28	R	115.28
353	414406.56	3754953.28	R	115.55
354	414431.56	3754778.28	R	113.98
355	414431.56	3754803.28	R	114.25
356	414431.56	3754828.28	R	114.52
357	414431.56	3754853.28	R	114.79
358	414431.56	3754878.28	R	115.06
359	414431.56	3754903.28	R	115.33
360	414431.56	3754928.28	R	115.60
361	414431.56	3754953.28	R	115.87
362	414456.56	3754778.28	R	113.98
363	414456.56	3754803.28	R	114.25
364	414456.56	3754828.28	R	114.52
365	414456.56	3754853.28	R	114.79
366	414456.56	3754878.28	R	115.06
367	414456.56	3754903.28	R	115.33
368	414456.56	3754928.28	R	115.60
369	414456.56	3754953.28	R	115.87
370	414481.56	3754778.28	R	113.98
371	414481.56	3754803.28	R	114.25
372	414481.56	3754828.28	R	114.52

373	414481.56	3754853.28	R	114.79
374	414481.56	3754878.28	R	115.06
375	414481.56	3754903.28	R	115.33
376	414481.56	3754928.28	R	115.60
377	414481.56	3754953.28	R	115.87
378	414506.56	3754778.28	R	113.98
379	414506.56	3754803.28	R	114.25
380	414506.56	3754828.28	R	114.52
381	414506.56	3754853.28	R	114.80
382	414506.56	3754878.28	R	115.07
383	414506.56	3754903.28	R	115.34
384	414506.56	3754928.28	R	115.61
385	414506.56	3754953.28	R	115.88
386	414531.56	3754778.28	R	113.99
387	414531.56	3754803.28	R	114.26
388	414531.56	3754828.28	R	114.53
389	414531.56	3754853.28	R	114.80
390	414531.56	3754878.28	R	115.07
391	414531.56	3754903.28	R	115.34
392	414531.56	3754928.28	R	115.61
393	414531.56	3754953.28	R	115.88
394	414571.80	3754431.75	R	111.21
395	414596.80	3754456.75	R	111.31
396	414596.80	3754481.75	R	111.58
397	414596.80	3754506.75	R	111.81
398	414596.80	3754531.75	R	111.87
399	414596.80	3754556.75	R	111.92
400	414596.80	3754581.75	R	111.97
401	414596.80	3754606.75	R	112.14
402	414596.80	3754631.75	R	112.41
403	414596.80	3754656.75	R	112.68
404	414596.80	3754681.75	R	112.95
405	414596.80	3754706.75	R	113.22
406	414596.80	3754731.75	R	113.49
407	414596.80	3754756.75	R	113.76
408	414596.80	3754781.75	R	114.03
409	414596.80	3754806.75	R	114.30
410	414596.80	3754831.75	R	114.57

411	414596.80	3754856.75	R	114.84
412	414596.80	3754881.75	R	115.11
413	414596.80	3754906.75	R	115.38
414	414596.80	3754931.75	R	115.65
415	414596.80	3754956.75	R	115.92
416	414621.80	3754456.75	R	110.99
417	414621.80	3754481.75	R	111.26
418	414621.80	3754506.75	R	111.51
419	414621.80	3754531.75	R	111.65
420	414621.80	3754556.75	R	111.79
421	414621.80	3754581.75	R	111.93
422	414621.80	3754606.75	R	112.14
423	414621.80	3754631.75	R	112.41
424	414621.80	3754656.75	R	112.68
425	414621.80	3754681.75	R	112.95
426	414621.80	3754706.75	R	113.22
427	414621.80	3754731.75	R	113.49
428	414621.80	3754756.75	R	113.76
429	414621.80	3754781.75	R	114.03
430	414621.80	3754806.75	R	114.30
431	414621.80	3754831.75	R	114.57
432	414621.80	3754856.75	R	114.84
433	414621.80	3754881.75	R	115.11
434	414621.80	3754906.75	R	115.39
435	414621.80	3754931.75	R	115.66
436	414646.80	3754456.75	R	110.66
437	414646.80	3754481.75	R	110.94
438	414646.80	3754506.75	R	111.20
439	414646.80	3754531.75	R	111.43
440	414646.80	3754556.75	R	111.66
441	414646.80	3754581.75	R	111.89
442	414646.80	3754606.75	R	112.14
443	414646.80	3754631.75	R	112.41
444	414646.80	3754656.75	R	112.68
445	414646.80	3754681.75	R	112.95
446	414646.80	3754706.75	R	113.22
447	414646.80	3754731.75	R	113.49
448	414646.80	3754756.75	R	113.76

449	414646.80	3754781.75	R	114.03
450	414646.80	3754806.75	R	114.31
451	414646.80	3754831.75	R	114.58
452	414646.80	3754856.75	R	114.85
453	414646.80	3754881.75	R	115.12
454	414671.80	3754556.75	R	111.60
455	414671.80	3754581.75	R	111.87
456	414671.80	3754606.75	R	112.14
457	414671.80	3754631.75	R	112.41
458	414671.80	3754656.75	R	112.68
459	414671.80	3754681.75	R	112.96
460	414671.80	3754706.75	R	113.19
461	414671.80	3754731.75	R	113.42
462	414671.80	3754756.75	R	113.66
463	414671.80	3754781.75	R	113.90
464	414671.80	3754806.75	R	114.17
465	414671.80	3754831.75	R	114.44
466	414696.80	3754681.75	R	112.96
467	414696.80	3754706.75	R	113.12
468	414696.80	3754731.75	R	113.26
469	414696.80	3754756.75	R	113.41
470	414365.35	3754414.82	S	110.04
471	414365.35	3754439.82	S	110.31
472	414365.35	3754464.82	S	110.58
473	414365.35	3754489.82	S	110.85
474	414365.35	3754514.82	S	111.12
475	414365.35	3754539.82	S	111.39
476	414365.35	3754564.82	S	111.66
477	414365.35	3754589.82	S	111.93
478	414365.35	3754614.82	S	112.20
479	414365.35	3754639.82	S	112.47
480	414390.35	3754414.82	S	110.04
481	414390.35	3754439.82	S	110.31
482	414390.35	3754464.82	S	110.58
483	414390.35	3754489.82	S	110.85
484	414390.35	3754514.82	S	111.12
485	414390.35	3754539.82	S	111.39
486	414390.35	3754564.82	S	111.66

487	414390.35	3754589.82	S	111.93
488	414390.35	3754614.82	S	112.20
489	414390.35	3754639.82	S	112.47
490	414390.35	3754664.82	S	112.74
491	414390.35	3754689.82	S	113.01
492	414390.35	3754714.82	S	113.14
493	414390.35	3754739.82	S	113.27
494	414415.35	3754414.82	S	110.04
495	414415.35	3754439.82	S	110.31
496	414415.35	3754464.82	S	110.58
497	414415.35	3754489.82	S	110.85
498	414415.35	3754514.82	S	111.12
499	414415.35	3754539.82	S	111.39
500	414415.35	3754564.82	S	111.66
501	414415.35	3754589.82	S	111.94
502	414415.35	3754614.82	S	112.21
503	414415.35	3754639.82	S	112.48
504	414415.35	3754664.82	S	112.75
505	414415.35	3754689.82	S	113.01
506	414415.35	3754714.82	S	113.24
507	414415.35	3754739.82	S	113.46
508	414440.35	3754414.82	S	110.22
509	414440.35	3754439.82	S	110.44
510	414440.35	3754464.82	S	110.66
511	414440.35	3754489.82	S	110.88
512	414440.35	3754514.82	S	111.13
513	414440.35	3754539.82	S	111.40
514	414440.35	3754564.82	S	111.67
515	414440.35	3754589.82	S	111.94
516	414440.35	3754614.82	S	112.21
517	414440.35	3754639.82	S	112.48
518	414440.35	3754664.82	S	112.75
519	414440.35	3754689.82	S	113.02
520	414440.35	3754714.82	S	113.29
521	414440.35	3754739.82	S	113.56
522	414465.35	3754414.82	S	110.53
523	414465.35	3754439.82	S	110.66
524	414465.35	3754464.82	S	110.79

525	414465.35	3754489.82	S	110.93
526	414465.35	3754514.82	S	111.13
527	414465.35	3754539.82	S	111.40
528	414465.35	3754564.82	S	111.67
529	414465.35	3754589.82	S	111.94
530	414465.35	3754614.82	S	112.21
531	414465.35	3754639.82	S	112.48
532	414465.35	3754664.82	S	112.75
533	414465.35	3754689.82	S	113.02
534	414490.35	3754414.82	S	110.84
535	414490.35	3754439.82	S	110.88
536	414490.35	3754464.82	S	110.93
537	414490.35	3754489.82	S	110.97
538	414490.35	3754514.82	S	111.13
539	414490.35	3754539.82	S	111.40
540	414490.35	3754564.82	S	111.67
541	414490.35	3754589.82	S	111.94
542	414515.35	3754414.82	S	111.01
543	414515.35	3754439.82	S	111.05
544	414515.35	3754464.82	S	111.09
545	414515.35	3754489.82	S	111.12
546	414515.35	3754514.82	S	111.26
547	414515.35	3754539.82	S	111.49
548	414515.35	3754564.82	S	111.72
549	414227.51	3754399.07	S	108.85
550	414257.09	3754397.03	S	108.83
551	414290.13	3754397.82	S	109.08
552	414332.14	3754395.77	S	109.60
553	414357.63	3754398.45	S	109.87
554	414375.88	3754398.29	S	109.91
555	414384.37	3754397.97	S	109.92
556	414013.18	3754959.39	W	113.38
557	414091.17	3754953.02	W	113.00
558	413902.11	3754372.51	W	111.80
559	413901.75	3754342.38	W	111.80
560	414017.65	3754321.83	W	110.30
561	414048.48	3754289.22	W	109.89
562	414066.20	3754252.72	W	109.66

563	413989.29	3754254.49	W	110.17
564	413991.78	3754223.65	W	109.97
565	414170.88	3754279.42	W	108.30
566	414171.23	3754246.81	W	108.29
567	414219.43	3754257.80	W	108.00
568	414219.79	3754234.76	W	108.00
569	414269.41	3754238.66	W	108.00
570	414294.22	3754234.40	W	108.02
571	414321.16	3754218.46	W	107.91
572	414201.53	3754352.55	W	108.35
573	414226.54	3754358.81	W	108.42
574	414254.90	3754359.64	W	108.43
575	414290.34	3754358.81	W	108.66
576	414337.05	3754358.81	W	109.27
577	414299.93	3754303.77	W	108.31
578	414337.46	3754305.02	W	108.72
579	414389.17	3754303.77	W	109.37
580	414432.95	3754301.27	W	109.81
581	414395.01	3754357.98	W	109.77
582	414434.20	3754357.14	W	110.04
583	414485.49	3754359.23	W	110.35
584	414522.61	3754360.06	W	110.46
585	414491.75	3754301.68	W	109.82
586	414525.52	3754300.43	W	109.81
587	414393.76	3754278.75	W	109.16
588	414433.37	3754278.33	W	109.57
589	414343.72	3754280.83	W	108.55
590	414489.25	3754277.91	W	109.57
591	414526.78	3754278.75	W	109.58
592	414489.66	3754239.97	W	109.16
593	414515.10	3754220.79	W	108.95
594	414531.78	3754211.20	W	108.85
595	414499.25	3754209.95	W	108.83
596	414587.56	3754276.59	W	109.50
597	414599.34	3754302.20	W	109.63
598	414589.87	3754365.97	W	110.40
599	414592.69	3754400.03	W	110.74
600	414624.44	3754390.04	W	110.22

601	414060.03	3754145.75	W	108.82	
602	414223.51	3754098.38	W	107.20	

Plant Boundary Receptors

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	FENCEGRD	Receptors generated from Fenceline Grid
3	R	
4	S	
5	W	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		3.14305	ug/m^3	R_001	414085.57	3755034.20	113.71	0.00	113.71	
PERIOD		3.21458	ug/m^3	R_002	414110.57	3755034.20	113.71	0.00	113.71	
PERIOD		3.25794	ug/m^3	R_003	414135.57	3755034.20	113.87	0.00	113.87	
PERIOD		3.27917	ug/m^3	R_004	414160.57	3755034.20	114.19	0.00	114.19	
PERIOD		2.13121	ug/m^3	R_005	414160.57	3755059.20	114.46	0.00	114.46	
PERIOD		3.28702	ug/m^3	R_006	414185.57	3755034.20	114.52	0.00	114.52	
PERIOD		2.14688	ug/m^3	R_007	414185.57	3755059.20	114.79	0.00	114.79	
PERIOD		3.28874	ug/m^3	R_008	414210.57	3755034.20	114.85	0.00	114.85	
PERIOD		2.15669	ug/m^3	R_009	414210.57	3755059.20	115.12	0.00	115.12	
PERIOD		3.29020	ug/m^3	R_010	414235.57	3755034.20	115.18	0.00	115.18	
PERIOD		2.16347	ug/m^3	R_011	414235.57	3755059.20	115.44	0.00	115.44	
PERIOD		3.28963	ug/m^3	R_012	414260.57	3755034.20	115.50	0.00	115.50	
PERIOD		2.16729	ug/m^3	R_013	414260.57	3755059.20	115.77	0.00	115.77	
PERIOD		3.28587	ug/m^3	R_014	414285.57	3755034.20	115.73	0.00	115.73	
PERIOD		2.15926	ug/m^3	R_015	414285.57	3755059.20	116.00	0.00	116.00	
PERIOD		3.28780	ug/m^3	R_016	414310.57	3755034.20	115.73	0.00	115.73	
PERIOD		2.16848	ug/m^3	R_017	414310.57	3755059.20	116.00	0.00	116.00	
PERIOD		3.29217	ug/m^3	R_018	414335.57	3755034.20	115.74	0.00	115.74	
PERIOD		2.18087	ug/m^3	R_019	414335.57	3755059.20	116.01	0.00	116.01	
PERIOD		3.29604	ug/m^3	R_020	414360.57	3755034.20	115.81	0.00	115.81	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.19029	ug/m^3	R_021	414360.57	3755059.20	116.08	0.00	116.08	
PERIOD		3.29715	ug/m^3	R_022	414385.57	3755034.20	116.14	0.00	116.14	
PERIOD		2.19285	ug/m^3	R_023	414385.57	3755059.20	116.40	0.00	116.40	
PERIOD		3.29032	ug/m^3	R_024	414410.57	3755034.20	116.46	0.00	116.46	
PERIOD		2.19325	ug/m^3	R_025	414410.57	3755059.20	116.72	0.00	116.72	
PERIOD		3.28366	ug/m^3	R_026	414435.57	3755034.20	116.75	0.00	116.75	
PERIOD		3.28575	ug/m^3	R_027	414460.57	3755034.20	116.75	0.00	116.75	
PERIOD		0.19883	ug/m^3	R_028	413881.56	3754478.28	112.76	0.00	112.76	
PERIOD		0.18549	ug/m^3	R_029	413881.56	3754503.28	113.03	0.00	113.03	
PERIOD		0.17557	ug/m^3	R_030	413881.56	3754528.28	113.09	0.00	113.09	
PERIOD		0.16839	ug/m^3	R_031	413881.56	3754553.28	113.09	0.00	113.09	
PERIOD		0.16354	ug/m^3	R_032	413881.56	3754578.28	113.09	0.00	113.09	
PERIOD		0.16080	ug/m^3	R_033	413881.56	3754603.28	113.10	0.00	113.10	
PERIOD		0.15997	ug/m^3	R_034	413881.56	3754628.28	113.10	0.00	113.10	
PERIOD		0.16085	ug/m^3	R_035	413881.56	3754653.28	113.10	0.00	113.10	
PERIOD		0.16326	ug/m^3	R_036	413881.56	3754678.28	113.11	0.00	113.11	
PERIOD		0.16719	ug/m^3	R_037	413881.56	3754703.28	113.22	0.00	113.22	
PERIOD		0.17265	ug/m^3	R_038	413881.56	3754728.28	113.49	0.00	113.49	
PERIOD		0.17972	ug/m^3	R_039	413881.56	3754753.28	113.77	0.00	113.77	
PERIOD		0.18959	ug/m^3	R_040	413881.56	3754778.28	114.04	0.00	114.04	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.20307	ug/m^3	R_041	413881.56	3754803.28	114.12	0.00	114.12	
PERIOD		0.21790	ug/m^3	R_042	413906.56	3754478.28	112.44	0.00	112.44	
PERIOD		0.20112	ug/m^3	R_043	413906.56	3754503.28	112.71	0.00	112.71	
PERIOD		0.18899	ug/m^3	R_044	413906.56	3754528.28	112.76	0.00	112.76	
PERIOD		0.18013	ug/m^3	R_045	413906.56	3754553.28	112.77	0.00	112.77	
PERIOD		0.17408	ug/m^3	R_046	413906.56	3754578.28	112.77	0.00	112.77	
PERIOD		0.17048	ug/m^3	R_047	413906.56	3754603.28	112.78	0.00	112.78	
PERIOD		0.16908	ug/m^3	R_048	413906.56	3754628.28	112.84	0.00	112.84	
PERIOD		0.16962	ug/m^3	R_049	413906.56	3754653.28	112.91	0.00	112.91	
PERIOD		0.17196	ug/m^3	R_050	413906.56	3754678.28	112.97	0.00	112.97	
PERIOD		0.17598	ug/m^3	R_051	413906.56	3754703.28	113.09	0.00	113.09	
PERIOD		0.18172	ug/m^3	R_052	413906.56	3754728.28	113.30	0.00	113.30	
PERIOD		0.18958	ug/m^3	R_053	413906.56	3754753.28	113.52	0.00	113.52	
PERIOD		0.19992	ug/m^3	R_054	413906.56	3754778.28	113.73	0.00	113.73	
PERIOD		0.21445	ug/m^3	R_055	413906.56	3754803.28	113.80	0.00	113.80	
PERIOD		0.23459	ug/m^3	R_056	413906.56	3754828.28	113.80	0.00	113.80	
PERIOD		0.26301	ug/m^3	R_057	413906.56	3754853.28	113.80	0.00	113.80	
PERIOD		0.23931	ug/m^3	R_058	413931.56	3754478.28	112.11	0.00	112.11	
PERIOD		0.21947	ug/m^3	R_059	413931.56	3754503.28	112.39	0.00	112.39	
PERIOD		0.20457	ug/m^3	R_060	413931.56	3754528.28	112.44	0.00	112.44	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.19364	ug/m^3	R_061	413931.56	3754553.28	112.44	0.00	112.44	
PERIOD		0.18609	ug/m^3	R_062	413931.56	3754578.28	112.44	0.00	112.44	
PERIOD		0.18150	ug/m^3	R_063	413931.56	3754603.28	112.47	0.00	112.47	
PERIOD		0.17923	ug/m^3	R_064	413931.56	3754628.28	112.62	0.00	112.62	
PERIOD		0.17942	ug/m^3	R_065	413931.56	3754653.28	112.77	0.00	112.77	
PERIOD		0.18166	ug/m^3	R_066	413931.56	3754678.28	112.92	0.00	112.92	
PERIOD		0.18583	ug/m^3	R_067	413931.56	3754703.28	113.05	0.00	113.05	
PERIOD		0.19192	ug/m^3	R_068	413931.56	3754728.28	113.18	0.00	113.18	
PERIOD		0.20025	ug/m^3	R_069	413931.56	3754753.28	113.31	0.00	113.31	
PERIOD		0.21157	ug/m^3	R_070	413931.56	3754778.28	113.43	0.00	113.43	
PERIOD		0.22721	ug/m^3	R_071	413931.56	3754803.28	113.47	0.00	113.47	
PERIOD		0.24914	ug/m^3	R_072	413931.56	3754828.28	113.47	0.00	113.47	
PERIOD		0.28063	ug/m^3	R_073	413931.56	3754853.28	113.48	0.00	113.48	
PERIOD		0.32728	ug/m^3	R_074	413931.56	3754878.28	113.49	0.00	113.49	
PERIOD		0.39895	ug/m^3	R_075	413931.56	3754903.28	113.76	0.00	113.76	
PERIOD		0.51446	ug/m^3	R_076	413931.56	3754928.28	114.04	0.00	114.04	
PERIOD		0.29445	ug/m^3	R_077	413956.56	3754453.28	111.52	0.00	111.52	
PERIOD		0.26399	ug/m^3	R_078	413956.56	3754478.28	111.79	0.00	111.79	
PERIOD		0.23971	ug/m^3	R_079	413956.56	3754503.28	112.07	0.00	112.07	
PERIOD		0.22161	ug/m^3	R_080	413956.56	3754528.28	112.11	0.00	112.11	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.20831	ug/m^3	R_081	413956.56	3754553.28	112.12	0.00	112.12	
PERIOD		0.19913	ug/m^3	R_082	413956.56	3754578.28	112.12	0.00	112.12	
PERIOD		0.19347	ug/m^3	R_083	413956.56	3754603.28	112.15	0.00	112.15	
PERIOD		0.19063	ug/m^3	R_084	413956.56	3754628.28	112.39	0.00	112.39	
PERIOD		0.19037	ug/m^3	R_085	413956.56	3754653.28	112.63	0.00	112.63	
PERIOD		0.19256	ug/m^3	R_086	413956.56	3754678.28	112.87	0.00	112.87	
PERIOD		0.19690	ug/m^3	R_087	413956.56	3754703.28	113.02	0.00	113.02	
PERIOD		0.20342	ug/m^3	R_088	413956.56	3754728.28	113.05	0.00	113.05	
PERIOD		0.21231	ug/m^3	R_089	413956.56	3754753.28	113.09	0.00	113.09	
PERIOD		0.22443	ug/m^3	R_090	413956.56	3754778.28	113.13	0.00	113.13	
PERIOD		0.24132	ug/m^3	R_091	413956.56	3754803.28	113.15	0.00	113.15	
PERIOD		0.26536	ug/m^3	R_092	413956.56	3754828.28	113.15	0.00	113.15	
PERIOD		0.30058	ug/m^3	R_093	413956.56	3754853.28	113.15	0.00	113.15	
PERIOD		0.35387	ug/m^3	R_094	413956.56	3754878.28	113.17	0.00	113.17	
PERIOD		0.43854	ug/m^3	R_095	413956.56	3754903.28	113.44	0.00	113.44	
PERIOD		0.58359	ug/m^3	R_096	413956.56	3754928.28	113.71	0.00	113.71	
PERIOD		0.32844	ug/m^3	R_097	413981.56	3754453.28	111.32	0.00	111.32	
PERIOD		0.29148	ug/m^3	R_098	413981.56	3754478.28	111.54	0.00	111.54	
PERIOD		0.26233	ug/m^3	R_099	413981.56	3754503.28	111.75	0.00	111.75	
PERIOD		0.24037	ug/m^3	R_100	413981.56	3754528.28	111.84	0.00	111.84	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.22429	ug/m^3	R_101	413981.56	3754553.28	111.90	0.00	111.90	
PERIOD		0.21321	ug/m^3	R_102	413981.56	3754578.28	111.95	0.00	111.95	
PERIOD		0.20636	ug/m^3	R_103	413981.56	3754603.28	112.03	0.00	112.03	
PERIOD		0.20295	ug/m^3	R_104	413981.56	3754628.28	112.25	0.00	112.25	
PERIOD		0.20268	ug/m^3	R_105	413981.56	3754653.28	112.47	0.00	112.47	
PERIOD		0.20487	ug/m^3	R_106	413981.56	3754678.28	112.69	0.00	112.69	
PERIOD		0.20949	ug/m^3	R_107	413981.56	3754703.28	112.81	0.00	112.81	
PERIOD		0.21640	ug/m^3	R_108	413981.56	3754728.28	112.81	0.00	112.81	
PERIOD		0.22585	ug/m^3	R_109	413981.56	3754753.28	112.82	0.00	112.82	
PERIOD		0.23883	ug/m^3	R_110	413981.56	3754778.28	112.82	0.00	112.82	
PERIOD		0.25707	ug/m^3	R_111	413981.56	3754803.28	112.86	0.00	112.86	
PERIOD		0.28355	ug/m^3	R_112	413981.56	3754828.28	112.91	0.00	112.91	
PERIOD		0.32318	ug/m^3	R_113	413981.56	3754853.28	112.96	0.00	112.96	
PERIOD		0.38475	ug/m^3	R_114	413981.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.48565	ug/m^3	R_115	413981.56	3754903.28	113.24	0.00	113.24	
PERIOD		0.66604	ug/m^3	R_116	413981.56	3754928.28	113.46	0.00	113.46	
PERIOD		0.41927	ug/m^3	R_117	414006.56	3754428.28	111.07	0.00	111.07	
PERIOD		0.36542	ug/m^3	R_118	414006.56	3754453.28	111.19	0.00	111.19	
PERIOD		0.32149	ug/m^3	R_119	414006.56	3754478.28	111.32	0.00	111.32	
PERIOD		0.28705	ug/m^3	R_120	414006.56	3754503.28	111.44	0.00	111.44	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.26072	ug/m^3	R_121	414006.56	3754528.28	111.59	0.00	111.59	
PERIOD		0.24150	ug/m^3	R_122	414006.56	3754553.28	111.73	0.00	111.73	
PERIOD		0.22830	ug/m^3	R_123	414006.56	3754578.28	111.88	0.00	111.88	
PERIOD		0.22024	ug/m^3	R_124	414006.56	3754603.28	112.02	0.00	112.02	
PERIOD		0.21645	ug/m^3	R_125	414006.56	3754628.28	112.15	0.00	112.15	
PERIOD		0.21616	ug/m^3	R_126	414006.56	3754653.28	112.28	0.00	112.28	
PERIOD		0.21871	ug/m^3	R_127	414006.56	3754678.28	112.41	0.00	112.41	
PERIOD		0.22369	ug/m^3	R_128	414006.56	3754703.28	112.49	0.00	112.49	
PERIOD		0.23100	ug/m^3	R_129	414006.56	3754728.28	112.49	0.00	112.49	
PERIOD		0.24100	ug/m^3	R_130	414006.56	3754753.28	112.49	0.00	112.49	
PERIOD		0.25478	ug/m^3	R_131	414006.56	3754778.28	112.49	0.00	112.49	
PERIOD		0.27433	ug/m^3	R_132	414006.56	3754803.28	112.60	0.00	112.60	
PERIOD		0.30331	ug/m^3	R_133	414006.56	3754828.28	112.74	0.00	112.74	
PERIOD		0.34771	ug/m^3	R_134	414006.56	3754853.28	112.87	0.00	112.87	
PERIOD		0.41843	ug/m^3	R_135	414006.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.53798	ug/m^3	R_136	414006.56	3754903.28	113.15	0.00	113.15	
PERIOD		0.76056	ug/m^3	R_137	414006.56	3754928.28	113.29	0.00	113.29	
PERIOD		0.46894	ug/m^3	R_138	414031.56	3754428.28	111.02	0.00	111.02	
PERIOD		0.40534	ug/m^3	R_139	414031.56	3754453.28	111.06	0.00	111.06	
PERIOD		0.35383	ug/m^3	R_140	414031.56	3754478.28	111.09	0.00	111.09	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.31359	ug/m^3	R_141	414031.56	3754503.28	111.13	0.00	111.13	
PERIOD		0.28252	ug/m^3	R_142	414031.56	3754528.28	111.34	0.00	111.34	
PERIOD		0.25992	ug/m^3	R_143	414031.56	3754553.28	111.57	0.00	111.57	
PERIOD		0.24455	ug/m^3	R_144	414031.56	3754578.28	111.81	0.00	111.81	
PERIOD		0.23532	ug/m^3	R_145	414031.56	3754603.28	112.01	0.00	112.01	
PERIOD		0.23124	ug/m^3	R_146	414031.56	3754628.28	112.05	0.00	112.05	
PERIOD		0.23103	ug/m^3	R_147	414031.56	3754653.28	112.09	0.00	112.09	
PERIOD		0.23392	ug/m^3	R_148	414031.56	3754678.28	112.14	0.00	112.14	
PERIOD		0.23935	ug/m^3	R_149	414031.56	3754703.28	112.16	0.00	112.16	
PERIOD		0.24713	ug/m^3	R_150	414031.56	3754728.28	112.16	0.00	112.16	
PERIOD		0.25767	ug/m^3	R_151	414031.56	3754753.28	112.17	0.00	112.17	
PERIOD		0.27224	ug/m^3	R_152	414031.56	3754778.28	112.17	0.00	112.17	
PERIOD		0.29318	ug/m^3	R_153	414031.56	3754803.28	112.34	0.00	112.34	
PERIOD		0.32465	ug/m^3	R_154	414031.56	3754828.28	112.57	0.00	112.57	
PERIOD		0.37398	ug/m^3	R_155	414031.56	3754853.28	112.79	0.00	112.79	
PERIOD		0.45436	ug/m^3	R_156	414031.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.59261	ug/m^3	R_157	414031.56	3754903.28	113.05	0.00	113.05	
PERIOD		0.85439	ug/m^3	R_158	414031.56	3754928.28	113.11	0.00	113.11	
PERIOD		0.61256	ug/m^3	R_159	414056.56	3754403.28	110.68	0.00	110.68	
PERIOD		0.52423	ug/m^3	R_160	414056.56	3754428.28	110.80	0.00	110.80	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.44910	ug/m^3	R_161	414056.56	3754453.28	110.81	0.00	110.81	
PERIOD		0.38866	ug/m^3	R_162	414056.56	3754478.28	110.81	0.00	110.81	
PERIOD		0.34187	ug/m^3	R_163	414056.56	3754503.28	110.81	0.00	110.81	
PERIOD		0.30584	ug/m^3	R_164	414056.56	3754528.28	111.05	0.00	111.05	
PERIOD		0.27992	ug/m^3	R_165	414056.56	3754553.28	111.32	0.00	111.32	
PERIOD		0.26245	ug/m^3	R_166	414056.56	3754578.28	111.60	0.00	111.60	
PERIOD		0.25206	ug/m^3	R_167	414056.56	3754603.28	111.82	0.00	111.82	
PERIOD		0.24762	ug/m^3	R_168	414056.56	3754628.28	111.83	0.00	111.83	
PERIOD		0.24752	ug/m^3	R_169	414056.56	3754653.28	111.83	0.00	111.83	
PERIOD		0.25085	ug/m^3	R_170	414056.56	3754678.28	111.83	0.00	111.83	
PERIOD		0.25681	ug/m^3	R_171	414056.56	3754703.28	111.86	0.00	111.86	
PERIOD		0.26509	ug/m^3	R_172	414056.56	3754728.28	111.90	0.00	111.90	
PERIOD		0.27616	ug/m^3	R_173	414056.56	3754753.28	111.95	0.00	111.95	
PERIOD		0.29138	ug/m^3	R_174	414056.56	3754778.28	111.99	0.00	111.99	
PERIOD		0.31352	ug/m^3	R_175	414056.56	3754803.28	112.21	0.00	112.21	
PERIOD		0.34742	ug/m^3	R_176	414056.56	3754828.28	112.48	0.00	112.48	
PERIOD		0.40113	ug/m^3	R_177	414056.56	3754853.28	112.75	0.00	112.75	
PERIOD		0.48955	ug/m^3	R_178	414056.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.64225	ug/m^3	R_179	414056.56	3754903.28	113.00	0.00	113.00	
PERIOD		0.92974	ug/m^3	R_180	414056.56	3754928.28	113.00	0.00	113.00	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.69147	ug/m^3	R_181	414081.56	3754403.28	110.36	0.00	110.36	
PERIOD		0.58688	ug/m^3	R_182	414081.56	3754428.28	110.48	0.00	110.48	
PERIOD		0.49753	ug/m^3	R_183	414081.56	3754453.28	110.48	0.00	110.48	
PERIOD		0.42639	ug/m^3	R_184	414081.56	3754478.28	110.49	0.00	110.49	
PERIOD		0.37216	ug/m^3	R_185	414081.56	3754503.28	110.49	0.00	110.49	
PERIOD		0.33110	ug/m^3	R_186	414081.56	3754528.28	110.73	0.00	110.73	
PERIOD		0.30193	ug/m^3	R_187	414081.56	3754553.28	111.00	0.00	111.00	
PERIOD		0.28236	ug/m^3	R_188	414081.56	3754578.28	111.28	0.00	111.28	
PERIOD		0.27072	ug/m^3	R_189	414081.56	3754603.28	111.50	0.00	111.50	
PERIOD		0.26587	ug/m^3	R_190	414081.56	3754628.28	111.50	0.00	111.50	
PERIOD		0.26589	ug/m^3	R_191	414081.56	3754653.28	111.51	0.00	111.51	
PERIOD		0.26974	ug/m^3	R_192	414081.56	3754678.28	111.51	0.00	111.51	
PERIOD		0.27634	ug/m^3	R_193	414081.56	3754703.28	111.58	0.00	111.58	
PERIOD		0.28515	ug/m^3	R_194	414081.56	3754728.28	111.71	0.00	111.71	
PERIOD		0.29671	ug/m^3	R_195	414081.56	3754753.28	111.84	0.00	111.84	
PERIOD		0.31242	ug/m^3	R_196	414081.56	3754778.28	111.97	0.00	111.97	
PERIOD		0.33538	ug/m^3	R_197	414081.56	3754803.28	112.21	0.00	112.21	
PERIOD		0.37087	ug/m^3	R_198	414081.56	3754828.28	112.48	0.00	112.48	
PERIOD		0.42764	ug/m^3	R_199	414081.56	3754853.28	112.75	0.00	112.75	
PERIOD		0.52173	ug/m^3	R_200	414081.56	3754878.28	113.00	0.00	113.00	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.68445	ug/m^3	R_201	414081.56	3754903.28	113.00	0.00	113.00	
PERIOD		0.98822	ug/m^3	R_202	414081.56	3754928.28	113.00	0.00	113.00	
PERIOD		0.91150	ug/m^3	R_203	414106.56	3754378.28	109.77	0.00	109.77	
PERIOD		0.78785	ug/m^3	R_204	414106.56	3754403.28	110.04	0.00	110.04	
PERIOD		0.66020	ug/m^3	R_205	414106.56	3754428.28	110.16	0.00	110.16	
PERIOD		0.55211	ug/m^3	R_206	414106.56	3754453.28	110.16	0.00	110.16	
PERIOD		0.46821	ug/m^3	R_207	414106.56	3754478.28	110.16	0.00	110.16	
PERIOD		0.40592	ug/m^3	R_208	414106.56	3754503.28	110.16	0.00	110.16	
PERIOD		0.35954	ug/m^3	R_209	414106.56	3754528.28	110.41	0.00	110.41	
PERIOD		0.32673	ug/m^3	R_210	414106.56	3754553.28	110.68	0.00	110.68	
PERIOD		0.30469	ug/m^3	R_211	414106.56	3754578.28	110.95	0.00	110.95	
PERIOD		0.29152	ug/m^3	R_212	414106.56	3754603.28	111.18	0.00	111.18	
PERIOD		0.28615	ug/m^3	R_213	414106.56	3754628.28	111.18	0.00	111.18	
PERIOD		0.28640	ug/m^3	R_214	414106.56	3754653.28	111.18	0.00	111.18	
PERIOD		0.29097	ug/m^3	R_215	414106.56	3754678.28	111.18	0.00	111.18	
PERIOD		0.29838	ug/m^3	R_216	414106.56	3754703.28	111.30	0.00	111.30	
PERIOD		0.30783	ug/m^3	R_217	414106.56	3754728.28	111.52	0.00	111.52	
PERIOD		0.31972	ug/m^3	R_218	414106.56	3754753.28	111.74	0.00	111.74	
PERIOD		0.33552	ug/m^3	R_219	414106.56	3754778.28	111.96	0.00	111.96	
PERIOD		0.35860	ug/m^3	R_220	414106.56	3754803.28	112.22	0.00	112.22	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.39473	ug/m^3	R_221	414106.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.45328	ug/m^3	R_222	414106.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.55113	ug/m^3	R_223	414106.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.72011	ug/m^3	R_224	414106.56	3754903.28	113.00	0.00	113.00	
PERIOD		1.03437	ug/m^3	R_225	414106.56	3754928.28	113.00	0.00	113.00	
PERIOD		1.06281	ug/m^3	R_226	414131.56	3754378.28	109.44	0.00	109.44	
PERIOD		0.91722	ug/m^3	R_227	414131.56	3754403.28	109.72	0.00	109.72	
PERIOD		0.75166	ug/m^3	R_228	414131.56	3754428.28	109.86	0.00	109.86	
PERIOD		0.61650	ug/m^3	R_229	414131.56	3754453.28	109.91	0.00	109.91	
PERIOD		0.51706	ug/m^3	R_230	414131.56	3754478.28	109.95	0.00	109.95	
PERIOD		0.44562	ug/m^3	R_231	414131.56	3754503.28	110.00	0.00	110.00	
PERIOD		0.39312	ug/m^3	R_232	414131.56	3754528.28	110.20	0.00	110.20	
PERIOD		0.35571	ug/m^3	R_233	414131.56	3754553.28	110.43	0.00	110.43	
PERIOD		0.33042	ug/m^3	R_234	414131.56	3754578.28	110.66	0.00	110.66	
PERIOD		0.31524	ug/m^3	R_235	414131.56	3754603.28	110.86	0.00	110.86	
PERIOD		0.30890	ug/m^3	R_236	414131.56	3754628.28	110.90	0.00	110.90	
PERIOD		0.30924	ug/m^3	R_237	414131.56	3754653.28	110.94	0.00	110.94	
PERIOD		0.31466	ug/m^3	R_238	414131.56	3754678.28	110.98	0.00	110.98	
PERIOD		0.32319	ug/m^3	R_239	414131.56	3754703.28	111.14	0.00	111.14	
PERIOD		0.33344	ug/m^3	R_240	414131.56	3754728.28	111.41	0.00	111.41	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.34558	ug/m^3	R_241	414131.56	3754753.28	111.68	0.00	111.68	
PERIOD		0.36100	ug/m^3	R_242	414131.56	3754778.28	111.95	0.00	111.95	
PERIOD		0.38348	ug/m^3	R_243	414131.56	3754803.28	112.22	0.00	112.22	
PERIOD		0.41926	ug/m^3	R_244	414131.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.47833	ug/m^3	R_245	414131.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.57799	ug/m^3	R_246	414131.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.75068	ug/m^3	R_247	414131.56	3754903.28	113.03	0.00	113.03	
PERIOD		1.07033	ug/m^3	R_248	414131.56	3754928.28	113.06	0.00	113.06	
PERIOD		1.74958	ug/m^3	R_249	414131.56	3754953.28	113.09	0.00	113.09	
PERIOD		1.29940	ug/m^3	R_250	414156.56	3754378.28	109.12	0.00	109.12	
PERIOD		1.11211	ug/m^3	R_251	414156.56	3754403.28	109.39	0.00	109.39	
PERIOD		0.87642	ug/m^3	R_252	414156.56	3754428.28	109.59	0.00	109.59	
PERIOD		0.70296	ug/m^3	R_253	414156.56	3754453.28	109.72	0.00	109.72	
PERIOD		0.58302	ug/m^3	R_254	414156.56	3754478.28	109.86	0.00	109.86	
PERIOD		0.49730	ug/m^3	R_255	414156.56	3754503.28	109.99	0.00	109.99	
PERIOD		0.43522	ug/m^3	R_256	414156.56	3754528.28	110.13	0.00	110.13	
PERIOD		0.39105	ug/m^3	R_257	414156.56	3754553.28	110.27	0.00	110.27	
PERIOD		0.36104	ug/m^3	R_258	414156.56	3754578.28	110.41	0.00	110.41	
PERIOD		0.34277	ug/m^3	R_259	414156.56	3754603.28	110.55	0.00	110.55	
PERIOD		0.33455	ug/m^3	R_260	414156.56	3754628.28	110.68	0.00	110.68	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.33465	ug/m^3	R_261	414156.56	3754653.28	110.81	0.00	110.81	
PERIOD		0.34106	ug/m^3	R_262	414156.56	3754678.28	110.94	0.00	110.94	
PERIOD		0.35116	ug/m^3	R_263	414156.56	3754703.28	111.14	0.00	111.14	
PERIOD		0.36263	ug/m^3	R_264	414156.56	3754728.28	111.41	0.00	111.41	
PERIOD		0.37501	ug/m^3	R_265	414156.56	3754753.28	111.68	0.00	111.68	
PERIOD		0.38960	ug/m^3	R_266	414156.56	3754778.28	111.95	0.00	111.95	
PERIOD		0.41059	ug/m^3	R_267	414156.56	3754803.28	112.22	0.00	112.22	
PERIOD		0.44497	ug/m^3	R_268	414156.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.50341	ug/m^3	R_269	414156.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.60343	ug/m^3	R_270	414156.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.77772	ug/m^3	R_271	414156.56	3754903.28	113.13	0.00	113.13	
PERIOD		1.10122	ug/m^3	R_272	414156.56	3754928.28	113.25	0.00	113.25	
PERIOD		1.78692	ug/m^3	R_273	414156.56	3754953.28	113.36	0.00	113.36	
PERIOD		0.42238	ug/m^3	R_274	414181.56	3754778.28	111.95	0.00	111.95	
PERIOD		0.44088	ug/m^3	R_275	414181.56	3754803.28	112.22	0.00	112.22	
PERIOD		0.47267	ug/m^3	R_276	414181.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.52914	ug/m^3	R_277	414181.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.62811	ug/m^3	R_278	414181.56	3754878.28	113.03	0.00	113.03	
PERIOD		0.80237	ug/m^3	R_279	414181.56	3754903.28	113.23	0.00	113.23	
PERIOD		1.12748	ug/m^3	R_280	414181.56	3754928.28	113.44	0.00	113.44	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.81851	ug/m^3	R_281	414181.56	3754953.28	113.64	0.00	113.64	
PERIOD		0.46087	ug/m^3	R_282	414206.56	3754778.28	112.06	0.00	112.06	
PERIOD		0.47548	ug/m^3	R_283	414206.56	3754803.28	112.32	0.00	112.32	
PERIOD		0.50307	ug/m^3	R_284	414206.56	3754828.28	112.59	0.00	112.59	
PERIOD		0.55635	ug/m^3	R_285	414206.56	3754853.28	112.86	0.00	112.86	
PERIOD		0.65297	ug/m^3	R_286	414206.56	3754878.28	113.13	0.00	113.13	
PERIOD		0.82604	ug/m^3	R_287	414206.56	3754903.28	113.39	0.00	113.39	
PERIOD		1.15063	ug/m^3	R_288	414206.56	3754928.28	113.66	0.00	113.66	
PERIOD		1.84363	ug/m^3	R_289	414206.56	3754953.28	113.93	0.00	113.93	
PERIOD		0.50742	ug/m^3	R_290	414231.56	3754778.28	112.38	0.00	112.38	
PERIOD		0.51589	ug/m^3	R_291	414231.56	3754803.28	112.65	0.00	112.65	
PERIOD		0.53755	ug/m^3	R_292	414231.56	3754828.28	112.92	0.00	112.92	
PERIOD		0.58624	ug/m^3	R_293	414231.56	3754853.28	113.19	0.00	113.19	
PERIOD		0.67962	ug/m^3	R_294	414231.56	3754878.28	113.45	0.00	113.45	
PERIOD		0.85029	ug/m^3	R_295	414231.56	3754903.28	113.72	0.00	113.72	
PERIOD		1.17346	ug/m^3	R_296	414231.56	3754928.28	113.99	0.00	113.99	
PERIOD		1.86595	ug/m^3	R_297	414231.56	3754953.28	114.26	0.00	114.26	
PERIOD		0.56581	ug/m^3	R_298	414256.56	3754778.28	112.71	0.00	112.71	
PERIOD		0.56491	ug/m^3	R_299	414256.56	3754803.28	112.98	0.00	112.98	
PERIOD		0.57789	ug/m^3	R_300	414256.56	3754828.28	113.25	0.00	113.25	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.62007	ug/m^3	R_301	414256.56	3754853.28	113.51	0.00	113.51	
PERIOD		0.70840	ug/m^3	R_302	414256.56	3754878.28	113.78	0.00	113.78	
PERIOD		0.87502	ug/m^3	R_303	414256.56	3754903.28	114.05	0.00	114.05	
PERIOD		1.19567	ug/m^3	R_304	414256.56	3754928.28	114.32	0.00	114.32	
PERIOD		1.89285	ug/m^3	R_305	414256.56	3754953.28	114.58	0.00	114.58	
PERIOD		0.64282	ug/m^3	R_306	414281.56	3754778.28	112.96	0.00	112.96	
PERIOD		0.62659	ug/m^3	R_307	414281.56	3754803.28	113.23	0.00	113.23	
PERIOD		0.62675	ug/m^3	R_308	414281.56	3754828.28	113.50	0.00	113.50	
PERIOD		0.65976	ug/m^3	R_309	414281.56	3754853.28	113.77	0.00	113.77	
PERIOD		0.74155	ug/m^3	R_310	414281.56	3754878.28	114.04	0.00	114.04	
PERIOD		0.90320	ug/m^3	R_311	414281.56	3754903.28	114.31	0.00	114.31	
PERIOD		1.22087	ug/m^3	R_312	414281.56	3754928.28	114.58	0.00	114.58	
PERIOD		1.92064	ug/m^3	R_313	414281.56	3754953.28	114.86	0.00	114.86	
PERIOD		0.75039	ug/m^3	R_314	414306.56	3754778.28	112.98	0.00	112.98	
PERIOD		0.70792	ug/m^3	R_315	414306.56	3754803.28	113.23	0.00	113.23	
PERIOD		0.68879	ug/m^3	R_316	414306.56	3754828.28	113.51	0.00	113.51	
PERIOD		0.71027	ug/m^3	R_317	414306.56	3754853.28	113.78	0.00	113.78	
PERIOD		0.78451	ug/m^3	R_318	414306.56	3754878.28	114.05	0.00	114.05	
PERIOD		0.93953	ug/m^3	R_319	414306.56	3754903.28	114.32	0.00	114.32	
PERIOD		1.25225	ug/m^3	R_320	414306.56	3754928.28	114.59	0.00	114.59	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.95017	ug/m^3	R_321	414306.56	3754953.28	114.86	0.00	114.86	
PERIOD		0.91242	ug/m^3	R_322	414331.56	3754778.28	112.99	0.00	112.99	
PERIOD		0.82188	ug/m^3	R_323	414331.56	3754803.28	113.24	0.00	113.24	
PERIOD		0.77526	ug/m^3	R_324	414331.56	3754828.28	113.51	0.00	113.51	
PERIOD		0.78175	ug/m^3	R_325	414331.56	3754853.28	113.78	0.00	113.78	
PERIOD		0.84374	ug/m^3	R_326	414331.56	3754878.28	114.05	0.00	114.05	
PERIOD		0.98771	ug/m^3	R_327	414331.56	3754903.28	114.32	0.00	114.32	
PERIOD		1.29005	ug/m^3	R_328	414331.56	3754928.28	114.59	0.00	114.59	
PERIOD		1.98395	ug/m^3	R_329	414331.56	3754953.28	114.86	0.00	114.86	
PERIOD		1.18624	ug/m^3	R_330	414356.56	3754778.28	113.05	0.00	113.05	
PERIOD		1.00773	ug/m^3	R_331	414356.56	3754803.28	113.29	0.00	113.29	
PERIOD		0.91869	ug/m^3	R_332	414356.56	3754828.28	113.55	0.00	113.55	
PERIOD		0.89162	ug/m^3	R_333	414356.56	3754853.28	113.82	0.00	113.82	
PERIOD		0.92852	ug/m^3	R_334	414356.56	3754878.28	114.09	0.00	114.09	
PERIOD		1.05252	ug/m^3	R_335	414356.56	3754903.28	114.36	0.00	114.36	
PERIOD		1.34007	ug/m^3	R_336	414356.56	3754928.28	114.62	0.00	114.62	
PERIOD		2.02010	ug/m^3	R_337	414356.56	3754953.28	114.89	0.00	114.89	
PERIOD		1.80753	ug/m^3	R_338	414381.56	3754778.28	113.36	0.00	113.36	
PERIOD		1.40133	ug/m^3	R_339	414381.56	3754803.28	113.61	0.00	113.61	
PERIOD		1.15996	ug/m^3	R_340	414381.56	3754828.28	113.88	0.00	113.88	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.05270	ug/m^3	R_341	414381.56	3754853.28	114.15	0.00	114.15	
PERIOD		1.04076	ug/m^3	R_342	414381.56	3754878.28	114.42	0.00	114.42	
PERIOD		1.13584	ug/m^3	R_343	414381.56	3754903.28	114.68	0.00	114.68	
PERIOD		1.40366	ug/m^3	R_344	414381.56	3754928.28	114.95	0.00	114.95	
PERIOD		2.07441	ug/m^3	R_345	414381.56	3754953.28	115.22	0.00	115.22	
PERIOD		3.35828	ug/m^3	R_346	414406.56	3754778.28	113.68	0.00	113.68	
PERIOD		2.01961	ug/m^3	R_347	414406.56	3754803.28	113.94	0.00	113.94	
PERIOD		1.49141	ug/m^3	R_348	414406.56	3754828.28	114.21	0.00	114.21	
PERIOD		1.25628	ug/m^3	R_349	414406.56	3754853.28	114.48	0.00	114.48	
PERIOD		1.18496	ug/m^3	R_350	414406.56	3754878.28	114.74	0.00	114.74	
PERIOD		1.24407	ug/m^3	R_351	414406.56	3754903.28	115.01	0.00	115.01	
PERIOD		1.48456	ug/m^3	R_352	414406.56	3754928.28	115.28	0.00	115.28	
PERIOD		2.13623	ug/m^3	R_353	414406.56	3754953.28	115.55	0.00	115.55	
PERIOD		4.47946	ug/m^3	R_354	414431.56	3754778.28	113.98	0.00	113.98	
PERIOD		2.61126	ug/m^3	R_355	414431.56	3754803.28	114.25	0.00	114.25	
PERIOD		1.83153	ug/m^3	R_356	414431.56	3754828.28	114.52	0.00	114.52	
PERIOD		1.48910	ug/m^3	R_357	414431.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.36021	ug/m^3	R_358	414431.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.38057	ug/m^3	R_359	414431.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.58988	ug/m^3	R_360	414431.56	3754928.28	115.60	0.00	115.60	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.21217	ug/m^3	R_361	414431.56	3754953.28	115.87	0.00	115.87	
PERIOD		4.93126	ug/m^3	R_362	414456.56	3754778.28	113.98	0.00	113.98	
PERIOD		3.01972	ug/m^3	R_363	414456.56	3754803.28	114.25	0.00	114.25	
PERIOD		2.15135	ug/m^3	R_364	414456.56	3754828.28	114.52	0.00	114.52	
PERIOD		1.74675	ug/m^3	R_365	414456.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.57433	ug/m^3	R_366	414456.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.56050	ug/m^3	R_367	414456.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.73292	ug/m^3	R_368	414456.56	3754928.28	115.60	0.00	115.60	
PERIOD		2.31604	ug/m^3	R_369	414456.56	3754953.28	115.87	0.00	115.87	
PERIOD		5.20814	ug/m^3	R_370	414481.56	3754778.28	113.98	0.00	113.98	
PERIOD		3.32416	ug/m^3	R_371	414481.56	3754803.28	114.25	0.00	114.25	
PERIOD		2.45842	ug/m^3	R_372	414481.56	3754828.28	114.52	0.00	114.52	
PERIOD		2.03806	ug/m^3	R_373	414481.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.84741	ug/m^3	R_374	414481.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.81159	ug/m^3	R_375	414481.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.95063	ug/m^3	R_376	414481.56	3754928.28	115.60	0.00	115.60	
PERIOD		2.47600	ug/m^3	R_377	414481.56	3754953.28	115.87	0.00	115.87	
PERIOD		5.37954	ug/m^3	R_378	414506.56	3754778.28	113.98	0.00	113.98	
PERIOD		3.64672	ug/m^3	R_379	414506.56	3754803.28	114.25	0.00	114.25	
PERIOD		2.84639	ug/m^3	R_380	414506.56	3754828.28	114.52	0.00	114.52	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.45463	ug/m^3	R_381	414506.56	3754853.28	114.80	0.00	114.80	
PERIOD		2.27198	ug/m^3	R_382	414506.56	3754878.28	115.07	0.00	115.07	
PERIOD		2.22868	ug/m^3	R_383	414506.56	3754903.28	115.34	0.00	115.34	
PERIOD		2.33919	ug/m^3	R_384	414506.56	3754928.28	115.61	0.00	115.61	
PERIOD		2.78601	ug/m^3	R_385	414506.56	3754953.28	115.88	0.00	115.88	
PERIOD		5.62831	ug/m^3	R_386	414531.56	3754778.28	113.99	0.00	113.99	
PERIOD		4.20597	ug/m^3	R_387	414531.56	3754803.28	114.26	0.00	114.26	
PERIOD		3.58017	ug/m^3	R_388	414531.56	3754828.28	114.53	0.00	114.53	
PERIOD		3.27580	ug/m^3	R_389	414531.56	3754853.28	114.80	0.00	114.80	
PERIOD		3.12477	ug/m^3	R_390	414531.56	3754878.28	115.07	0.00	115.07	
PERIOD		3.08502	ug/m^3	R_391	414531.56	3754903.28	115.34	0.00	115.34	
PERIOD		3.16537	ug/m^3	R_392	414531.56	3754928.28	115.61	0.00	115.61	
PERIOD		3.50645	ug/m^3	R_393	414531.56	3754953.28	115.88	0.00	115.88	
PERIOD		4.01680	ug/m^3	R_394	414571.80	3754431.75	111.21	0.00	111.21	
PERIOD		2.10691	ug/m^3	R_395	414596.80	3754456.75	111.31	0.00	111.31	
PERIOD		1.61845	ug/m^3	R_396	414596.80	3754481.75	111.58	0.00	111.58	
PERIOD		1.29228	ug/m^3	R_397	414596.80	3754506.75	111.81	0.00	111.81	
PERIOD		1.07320	ug/m^3	R_398	414596.80	3754531.75	111.87	0.00	111.87	
PERIOD		0.92408	ug/m^3	R_399	414596.80	3754556.75	111.92	0.00	111.92	
PERIOD		0.82492	ug/m^3	R_400	414596.80	3754581.75	111.97	0.00	111.97	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.76534	ug/m^3	R_401	414596.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.74380	ug/m^3	R_402	414596.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.76707	ug/m^3	R_403	414596.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.85452	ug/m^3	R_404	414596.80	3754681.75	112.95	0.00	112.95	
PERIOD		1.05310	ug/m^3	R_405	414596.80	3754706.75	113.22	0.00	113.22	
PERIOD		1.47724	ug/m^3	R_406	414596.80	3754731.75	113.49	0.00	113.49	
PERIOD		2.42494	ug/m^3	R_407	414596.80	3754756.75	113.76	0.00	113.76	
PERIOD		3.33678	ug/m^3	R_408	414596.80	3754781.75	114.03	0.00	114.03	
PERIOD		3.72980	ug/m^3	R_409	414596.80	3754806.75	114.30	0.00	114.30	
PERIOD		3.88226	ug/m^3	R_410	414596.80	3754831.75	114.57	0.00	114.57	
PERIOD		3.95726	ug/m^3	R_411	414596.80	3754856.75	114.84	0.00	114.84	
PERIOD		4.01797	ug/m^3	R_412	414596.80	3754881.75	115.11	0.00	115.11	
PERIOD		4.06064	ug/m^3	R_413	414596.80	3754906.75	115.38	0.00	115.38	
PERIOD		4.12404	ug/m^3	R_414	414596.80	3754931.75	115.65	0.00	115.65	
PERIOD		4.18136	ug/m^3	R_415	414596.80	3754956.75	115.92	0.00	115.92	
PERIOD		1.62616	ug/m^3	R_416	414621.80	3754456.75	110.99	0.00	110.99	
PERIOD		1.34728	ug/m^3	R_417	414621.80	3754481.75	111.26	0.00	111.26	
PERIOD		1.13016	ug/m^3	R_418	414621.80	3754506.75	111.51	0.00	111.51	
PERIOD		0.96973	ug/m^3	R_419	414621.80	3754531.75	111.65	0.00	111.65	
PERIOD		0.85364	ug/m^3	R_420	414621.80	3754556.75	111.79	0.00	111.79	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.77321	ug/m^3	R_421	414621.80	3754581.75	111.93	0.00	111.93	
PERIOD		0.72358	ug/m^3	R_422	414621.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.70448	ug/m^3	R_423	414621.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.72025	ug/m^3	R_424	414621.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.78117	ug/m^3	R_425	414621.80	3754681.75	112.95	0.00	112.95	
PERIOD		0.90755	ug/m^3	R_426	414621.80	3754706.75	113.22	0.00	113.22	
PERIOD		1.13889	ug/m^3	R_427	414621.80	3754731.75	113.49	0.00	113.49	
PERIOD		1.51207	ug/m^3	R_428	414621.80	3754756.75	113.76	0.00	113.76	
PERIOD		1.91628	ug/m^3	R_429	414621.80	3754781.75	114.03	0.00	114.03	
PERIOD		2.19861	ug/m^3	R_430	414621.80	3754806.75	114.30	0.00	114.30	
PERIOD		2.35833	ug/m^3	R_431	414621.80	3754831.75	114.57	0.00	114.57	
PERIOD		2.45109	ug/m^3	R_432	414621.80	3754856.75	114.84	0.00	114.84	
PERIOD		2.51183	ug/m^3	R_433	414621.80	3754881.75	115.11	0.00	115.11	
PERIOD		2.55301	ug/m^3	R_434	414621.80	3754906.75	115.39	0.00	115.39	
PERIOD		2.57931	ug/m^3	R_435	414621.80	3754931.75	115.66	0.00	115.66	
PERIOD		1.25108	ug/m^3	R_436	414646.80	3754456.75	110.66	0.00	110.66	
PERIOD		1.09973	ug/m^3	R_437	414646.80	3754481.75	110.94	0.00	110.94	
PERIOD		0.96514	ug/m^3	R_438	414646.80	3754506.75	111.20	0.00	111.20	
PERIOD		0.85563	ug/m^3	R_439	414646.80	3754531.75	111.43	0.00	111.43	
PERIOD		0.77119	ug/m^3	R_440	414646.80	3754556.75	111.66	0.00	111.66	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.71024	ug/m^3	R_441	414646.80	3754581.75	111.89	0.00	111.89	
PERIOD		0.67140	ug/m^3	R_442	414646.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.65501	ug/m^3	R_443	414646.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.66348	ug/m^3	R_444	414646.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.70190	ug/m^3	R_445	414646.80	3754681.75	112.95	0.00	112.95	
PERIOD		0.77836	ug/m^3	R_446	414646.80	3754706.75	113.22	0.00	113.22	
PERIOD		0.90397	ug/m^3	R_447	414646.80	3754731.75	113.49	0.00	113.49	
PERIOD		1.07901	ug/m^3	R_448	414646.80	3754756.75	113.76	0.00	113.76	
PERIOD		1.27516	ug/m^3	R_449	414646.80	3754781.75	114.03	0.00	114.03	
PERIOD		1.44400	ug/m^3	R_450	414646.80	3754806.75	114.31	0.00	114.31	
PERIOD		1.56359	ug/m^3	R_451	414646.80	3754831.75	114.58	0.00	114.58	
PERIOD		1.64511	ug/m^3	R_452	414646.80	3754856.75	114.85	0.00	114.85	
PERIOD		1.69951	ug/m^3	R_453	414646.80	3754881.75	115.12	0.00	115.12	
PERIOD		0.68560	ug/m^3	R_454	414671.80	3754556.75	111.60	0.00	111.60	
PERIOD		0.64198	ug/m^3	R_455	414671.80	3754581.75	111.87	0.00	111.87	
PERIOD		0.61317	ug/m^3	R_456	414671.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.59999	ug/m^3	R_457	414671.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.60388	ug/m^3	R_458	414671.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.62714	ug/m^3	R_459	414671.80	3754681.75	112.96	0.00	112.96	
PERIOD		0.67265	ug/m^3	R_460	414671.80	3754706.75	113.19	0.00	113.19	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.74185	ug/m^3	R_461	414671.80	3754731.75	113.42	0.00	113.42	
PERIOD		0.83328	ug/m^3	R_462	414671.80	3754756.75	113.66	0.00	113.66	
PERIOD		0.93718	ug/m^3	R_463	414671.80	3754781.75	113.90	0.00	113.90	
PERIOD		1.03709	ug/m^3	R_464	414671.80	3754806.75	114.17	0.00	114.17	
PERIOD		1.11814	ug/m^3	R_465	414671.80	3754831.75	114.44	0.00	114.44	
PERIOD		0.55918	ug/m^3	R_466	414696.80	3754681.75	112.96	0.00	112.96	
PERIOD		0.58613	ug/m^3	R_467	414696.80	3754706.75	113.12	0.00	113.12	
PERIOD		0.62571	ug/m^3	R_468	414696.80	3754731.75	113.26	0.00	113.26	
PERIOD		0.67696	ug/m^3	R_469	414696.80	3754756.75	113.41	0.00	113.41	
PERIOD		4.51023	ug/m^3	S_001	414365.35	3754414.82	110.04	0.00	110.04	
PERIOD		2.85902	ug/m^3	S_002	414365.35	3754439.82	110.31	0.00	110.31	
PERIOD		1.97700	ug/m^3	S_003	414365.35	3754464.82	110.58	0.00	110.58	
PERIOD		1.45833	ug/m^3	S_004	414365.35	3754489.82	110.85	0.00	110.85	
PERIOD		1.13341	ug/m^3	S_005	414365.35	3754514.82	111.12	0.00	111.12	
PERIOD		0.91989	ug/m^3	S_006	414365.35	3754539.82	111.39	0.00	111.39	
PERIOD		0.77650	ug/m^3	S_007	414365.35	3754564.82	111.66	0.00	111.66	
PERIOD		0.68196	ug/m^3	S_008	414365.35	3754589.82	111.93	0.00	111.93	
PERIOD		0.62599	ug/m^3	S_009	414365.35	3754614.82	112.20	0.00	112.20	
PERIOD		0.60717	ug/m^3	S_010	414365.35	3754639.82	112.47	0.00	112.47	
PERIOD		4.74982	ug/m^3	S_011	414390.35	3754414.82	110.04	0.00	110.04	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.96354	ug/m^3	S_012	414390.35	3754439.82	110.31	0.00	110.31	
PERIOD		2.04723	ug/m^3	S_013	414390.35	3754464.82	110.58	0.00	110.58	
PERIOD		1.51387	ug/m^3	S_014	414390.35	3754489.82	110.85	0.00	110.85	
PERIOD		1.18044	ug/m^3	S_015	414390.35	3754514.82	111.12	0.00	111.12	
PERIOD		0.96142	ug/m^3	S_016	414390.35	3754539.82	111.39	0.00	111.39	
PERIOD		0.81418	ug/m^3	S_017	414390.35	3754564.82	111.66	0.00	111.66	
PERIOD		0.71706	ug/m^3	S_018	414390.35	3754589.82	111.93	0.00	111.93	
PERIOD		0.65985	ug/m^3	S_019	414390.35	3754614.82	112.20	0.00	112.20	
PERIOD		0.64228	ug/m^3	S_020	414390.35	3754639.82	112.47	0.00	112.47	
PERIOD		0.67615	ug/m^3	S_021	414390.35	3754664.82	112.74	0.00	112.74	
PERIOD		0.79574	ug/m^3	S_022	414390.35	3754689.82	113.01	0.00	113.01	
PERIOD		1.09360	ug/m^3	S_023	414390.35	3754714.82	113.14	0.00	113.14	
PERIOD		1.88151	ug/m^3	S_024	414390.35	3754739.82	113.27	0.00	113.27	
PERIOD		4.82624	ug/m^3	S_025	414415.35	3754414.82	110.04	0.00	110.04	
PERIOD		3.03040	ug/m^3	S_026	414415.35	3754439.82	110.31	0.00	110.31	
PERIOD		2.09946	ug/m^3	S_027	414415.35	3754464.82	110.58	0.00	110.58	
PERIOD		1.55926	ug/m^3	S_028	414415.35	3754489.82	110.85	0.00	110.85	
PERIOD		1.22098	ug/m^3	S_029	414415.35	3754514.82	111.12	0.00	111.12	
PERIOD		0.99833	ug/m^3	S_030	414415.35	3754539.82	111.39	0.00	111.39	
PERIOD		0.84826	ug/m^3	S_031	414415.35	3754564.82	111.66	0.00	111.66	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.74929	ug/m^3	S_032	414415.35	3754589.82	111.94	0.00	111.94	
PERIOD		0.69189	ug/m^3	S_033	414415.35	3754614.82	112.21	0.00	112.21	
PERIOD		0.67683	ug/m^3	S_034	414415.35	3754639.82	112.48	0.00	112.48	
PERIOD		0.71984	ug/m^3	S_035	414415.35	3754664.82	112.75	0.00	112.75	
PERIOD		0.86811	ug/m^3	S_036	414415.35	3754689.82	113.01	0.00	113.01	
PERIOD		1.26262	ug/m^3	S_037	414415.35	3754714.82	113.24	0.00	113.24	
PERIOD		2.52735	ug/m^3	S_038	414415.35	3754739.82	113.46	0.00	113.46	
PERIOD		4.85567	ug/m^3	S_039	414440.35	3754414.82	110.22	0.00	110.22	
PERIOD		3.07106	ug/m^3	S_040	414440.35	3754439.82	110.44	0.00	110.44	
PERIOD		2.13734	ug/m^3	S_041	414440.35	3754464.82	110.66	0.00	110.66	
PERIOD		1.59652	ug/m^3	S_042	414440.35	3754489.82	110.88	0.00	110.88	
PERIOD		1.25732	ug/m^3	S_043	414440.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.03211	ug/m^3	S_044	414440.35	3754539.82	111.40	0.00	111.40	
PERIOD		0.87933	ug/m^3	S_045	414440.35	3754564.82	111.67	0.00	111.67	
PERIOD		0.77914	ug/m^3	S_046	414440.35	3754589.82	111.94	0.00	111.94	
PERIOD		0.72220	ug/m^3	S_047	414440.35	3754614.82	112.21	0.00	112.21	
PERIOD		0.71028	ug/m^3	S_048	414440.35	3754639.82	112.48	0.00	112.48	
PERIOD		0.76263	ug/m^3	S_049	414440.35	3754664.82	112.75	0.00	112.75	
PERIOD		0.93821	ug/m^3	S_050	414440.35	3754689.82	113.02	0.00	113.02	
PERIOD		1.41718	ug/m^3	S_051	414440.35	3754714.82	113.29	0.00	113.29	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.45941	ug/m^3	S_052	414440.35	3754739.82	113.56	0.00	113.56	
PERIOD		4.91086	ug/m^3	S_053	414465.35	3754414.82	110.53	0.00	110.53	
PERIOD		3.11522	ug/m^3	S_054	414465.35	3754439.82	110.66	0.00	110.66	
PERIOD		2.17639	ug/m^3	S_055	414465.35	3754464.82	110.79	0.00	110.79	
PERIOD		1.63585	ug/m^3	S_056	414465.35	3754489.82	110.93	0.00	110.93	
PERIOD		1.29449	ug/m^3	S_057	414465.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.06455	ug/m^3	S_058	414465.35	3754539.82	111.40	0.00	111.40	
PERIOD		0.90807	ug/m^3	S_059	414465.35	3754564.82	111.67	0.00	111.67	
PERIOD		0.80644	ug/m^3	S_060	414465.35	3754589.82	111.94	0.00	111.94	
PERIOD		0.75012	ug/m^3	S_061	414465.35	3754614.82	112.21	0.00	112.21	
PERIOD		0.74118	ug/m^3	S_062	414465.35	3754639.82	112.48	0.00	112.48	
PERIOD		0.79935	ug/m^3	S_063	414465.35	3754664.82	112.75	0.00	112.75	
PERIOD		0.98762	ug/m^3	S_064	414465.35	3754689.82	113.02	0.00	113.02	
PERIOD		5.05198	ug/m^3	S_065	414490.35	3754414.82	110.84	0.00	110.84	
PERIOD		3.20045	ug/m^3	S_066	414490.35	3754439.82	110.88	0.00	110.88	
PERIOD		2.24797	ug/m^3	S_067	414490.35	3754464.82	110.93	0.00	110.93	
PERIOD		1.69163	ug/m^3	S_068	414490.35	3754489.82	110.97	0.00	110.97	
PERIOD		1.33443	ug/m^3	S_069	414490.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.09484	ug/m^3	S_070	414490.35	3754539.82	111.40	0.00	111.40	
PERIOD		0.93317	ug/m^3	S_071	414490.35	3754564.82	111.67	0.00	111.67	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.82952	ug/m^3	S_072	414490.35	3754589.82	111.94	0.00	111.94	
PERIOD		5.51557	ug/m^3	S_073	414515.35	3754414.82	111.01	0.00	111.01	
PERIOD		3.45603	ug/m^3	S_074	414515.35	3754439.82	111.05	0.00	111.05	
PERIOD		2.38187	ug/m^3	S_075	414515.35	3754464.82	111.09	0.00	111.09	
PERIOD		1.75496	ug/m^3	S_076	414515.35	3754489.82	111.12	0.00	111.12	
PERIOD		1.36804	ug/m^3	S_077	414515.35	3754514.82	111.26	0.00	111.26	
PERIOD		1.11622	ug/m^3	S_078	414515.35	3754539.82	111.49	0.00	111.49	
PERIOD		0.95057	ug/m^3	S_079	414515.35	3754564.82	111.72	0.00	111.72	
PERIOD		4.28022	ug/m^3	S_080	414227.51	3754399.07	108.85	0.00	108.85	
PERIOD		5.82878	ug/m^3	S_081	414257.09	3754397.03	108.83	0.00	108.83	
PERIOD		6.09778	ug/m^3	S_082	414290.13	3754397.82	109.08	0.00	109.08	
PERIOD		6.58982	ug/m^3	S_083	414332.14	3754395.77	109.60	0.00	109.60	
PERIOD		6.36405	ug/m^3	S_084	414357.63	3754398.44	109.87	0.00	109.87	
PERIOD		5.38261	ug/m^3	S_085	414375.88	3754398.29	109.91	0.00	109.91	
PERIOD		4.36872	ug/m^3	S_086	414384.37	3754397.97	109.92	0.00	109.92	
PERIOD		1.53962	ug/m^3	W_001	414013.18	3754959.39	113.38	0.00	113.38	
PERIOD		1.65839	ug/m^3	W_002	414091.17	3754953.02	113.00	0.00	113.00	
PERIOD		0.31416	ug/m^3	W_003	413902.11	3754372.51	111.80	0.00	111.80	
PERIOD		0.35309	ug/m^3	W_004	413901.75	3754342.38	111.80	0.00	111.80	
PERIOD		0.86345	ug/m^3	W_005	414017.65	3754321.83	110.30	0.00	110.30	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.31077	ug/m^3	W_006	414048.48	3754289.22	109.89	0.00	109.89	
PERIOD		2.16725	ug/m^3	W_007	414066.20	3754252.71	109.66	0.00	109.66	
PERIOD		1.69329	ug/m^3	W_008	413989.29	3754254.49	110.17	0.00	110.17	
PERIOD		3.19534	ug/m^3	W_009	413991.78	3754223.65	109.97	0.00	109.97	
PERIOD		1.73926	ug/m^3	W_010	414170.88	3754279.42	108.30	0.00	108.30	
PERIOD		2.55521	ug/m^3	W_011	414171.23	3754246.81	108.29	0.00	108.29	
PERIOD		2.24881	ug/m^3	W_012	414219.43	3754257.80	108.00	0.00	108.00	
PERIOD		3.10486	ug/m^3	W_013	414219.79	3754234.76	108.00	0.00	108.00	
PERIOD		2.94021	ug/m^3	W_014	414269.41	3754238.66	108.00	0.00	108.00	
PERIOD		3.14510	ug/m^3	W_015	414294.22	3754234.40	108.02	0.00	108.02	
PERIOD		4.13396	ug/m^3	W_016	414321.16	3754218.46	107.91	0.00	107.91	
PERIOD		1.70041	ug/m^3	W_017	414201.53	3754352.55	108.35	0.00	108.35	
PERIOD		2.20772	ug/m^3	W_018	414226.54	3754358.81	108.42	0.00	108.42	
PERIOD		2.66620	ug/m^3	W_019	414254.90	3754359.64	108.43	0.00	108.43	
PERIOD		2.90131	ug/m^3	W_020	414290.34	3754358.81	108.66	0.00	108.66	
PERIOD		3.03424	ug/m^3	W_021	414337.05	3754358.81	109.27	0.00	109.27	
PERIOD		1.74792	ug/m^3	W_022	414299.93	3754303.77	108.31	0.00	108.31	
PERIOD		1.80280	ug/m^3	W_023	414337.46	3754305.02	108.72	0.00	108.72	
PERIOD		1.85928	ug/m^3	W_024	414389.17	3754303.77	109.37	0.00	109.37	
PERIOD		1.94086	ug/m^3	W_025	414432.95	3754301.27	109.81	0.00	109.81	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.88185	ug/m^3	W_026	414395.01	3754357.98	109.77	0.00	109.77	
PERIOD		2.83746	ug/m^3	W_027	414434.20	3754357.14	110.04	0.00	110.04	
PERIOD		3.10331	ug/m^3	W_028	414485.49	3754359.23	110.35	0.00	110.35	
PERIOD		3.77181	ug/m^3	W_029	414522.61	3754360.06	110.46	0.00	110.46	
PERIOD		2.35727	ug/m^3	W_030	414491.75	3754301.68	109.82	0.00	109.82	
PERIOD		3.26369	ug/m^3	W_031	414525.52	3754300.43	109.81	0.00	109.81	
PERIOD		2.02704	ug/m^3	W_032	414393.76	3754278.75	109.16	0.00	109.16	
PERIOD		2.09954	ug/m^3	W_033	414433.37	3754278.33	109.57	0.00	109.57	
PERIOD		1.95155	ug/m^3	W_034	414343.72	3754280.83	108.55	0.00	108.55	
PERIOD		2.46642	ug/m^3	W_035	414489.25	3754277.91	109.57	0.00	109.57	
PERIOD		3.39975	ug/m^3	W_036	414526.78	3754278.75	109.58	0.00	109.58	
PERIOD		3.22980	ug/m^3	W_037	414489.66	3754239.97	109.16	0.00	109.16	
PERIOD		4.36299	ug/m^3	W_038	414515.10	3754220.79	108.95	0.00	108.95	
PERIOD		5.24450	ug/m^3	W_039	414531.78	3754211.20	108.85	0.00	108.85	
PERIOD		4.94825	ug/m^3	W_040	414499.25	3754209.94	108.83	0.00	108.83	
PERIOD		4.21708	ug/m^3	W_041	414587.56	3754276.59	109.50	0.00	109.50	
PERIOD		3.33480	ug/m^3	W_042	414599.34	3754302.20	109.63	0.00	109.63	
PERIOD		4.22086	ug/m^3	W_043	414589.87	3754365.96	110.40	0.00	110.40	
PERIOD		3.92103	ug/m^3	W_044	414592.69	3754400.03	110.74	0.00	110.74	
PERIOD		2.16838	ug/m^3	W_045	414624.44	3754390.04	110.22	0.00	110.22	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.53003	ug/m^3	W_046	414060.03	3754145.75	108.82	0.00	108.82	
PERIOD		0.72277	ug/m^3	W_047	414223.51	3754098.38	107.20	0.00	107.20	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.21580	ug/m^3	R_001	414085.57	3755034.20	113.71	0.00	113.71	
PERIOD		0.24665	ug/m^3	R_002	414110.57	3755034.20	113.71	0.00	113.71	
PERIOD		0.28418	ug/m^3	R_003	414135.57	3755034.20	113.87	0.00	113.87	
PERIOD		0.32870	ug/m^3	R_004	414160.57	3755034.20	114.19	0.00	114.19	
PERIOD		0.29221	ug/m^3	R_005	414160.57	3755059.20	114.46	0.00	114.46	
PERIOD		0.38091	ug/m^3	R_006	414185.57	3755034.20	114.52	0.00	114.52	
PERIOD		0.33595	ug/m^3	R_007	414185.57	3755059.20	114.79	0.00	114.79	
PERIOD		0.44004	ug/m^3	R_008	414210.57	3755034.20	114.85	0.00	114.85	
PERIOD		0.38520	ug/m^3	R_009	414210.57	3755059.20	115.12	0.00	115.12	
PERIOD		0.50460	ug/m^3	R_010	414235.57	3755034.20	115.18	0.00	115.18	
PERIOD		0.43890	ug/m^3	R_011	414235.57	3755059.20	115.44	0.00	115.44	
PERIOD		0.57149	ug/m^3	R_012	414260.57	3755034.20	115.50	0.00	115.50	
PERIOD		0.49473	ug/m^3	R_013	414260.57	3755059.20	115.77	0.00	115.77	
PERIOD		0.63700	ug/m^3	R_014	414285.57	3755034.20	115.73	0.00	115.73	
PERIOD		0.55014	ug/m^3	R_015	414285.57	3755059.20	116.00	0.00	116.00	
PERIOD		0.69713	ug/m^3	R_016	414310.57	3755034.20	115.73	0.00	115.73	
PERIOD		0.60207	ug/m^3	R_017	414310.57	3755059.20	116.00	0.00	116.00	
PERIOD		0.74624	ug/m^3	R_018	414335.57	3755034.20	115.74	0.00	115.74	
PERIOD		0.64600	ug/m^3	R_019	414335.57	3755059.20	116.01	0.00	116.01	
PERIOD		0.78051	ug/m^3	R_020	414360.57	3755034.20	115.81	0.00	115.81	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.67872	ug/m^3	R_021	414360.57	3755059.20	116.08	0.00	116.08	
PERIOD		0.79700	ug/m^3	R_022	414385.57	3755034.20	116.14	0.00	116.14	
PERIOD		0.69747	ug/m^3	R_023	414385.57	3755059.20	116.40	0.00	116.40	
PERIOD		0.79650	ug/m^3	R_024	414410.57	3755034.20	116.46	0.00	116.46	
PERIOD		0.70248	ug/m^3	R_025	414410.57	3755059.20	116.72	0.00	116.72	
PERIOD		0.77949	ug/m^3	R_026	414435.57	3755034.20	116.75	0.00	116.75	
PERIOD		0.74903	ug/m^3	R_027	414460.57	3755034.20	116.75	0.00	116.75	
PERIOD		0.61929	ug/m^3	R_028	413881.56	3754478.28	112.76	0.00	112.76	
PERIOD		0.64705	ug/m^3	R_029	413881.56	3754503.28	113.03	0.00	113.03	
PERIOD		0.66633	ug/m^3	R_030	413881.56	3754528.28	113.09	0.00	113.09	
PERIOD		0.67604	ug/m^3	R_031	413881.56	3754553.28	113.09	0.00	113.09	
PERIOD		0.67552	ug/m^3	R_032	413881.56	3754578.28	113.09	0.00	113.09	
PERIOD		0.66452	ug/m^3	R_033	413881.56	3754603.28	113.10	0.00	113.10	
PERIOD		0.64332	ug/m^3	R_034	413881.56	3754628.28	113.10	0.00	113.10	
PERIOD		0.61227	ug/m^3	R_035	413881.56	3754653.28	113.10	0.00	113.10	
PERIOD		0.57220	ug/m^3	R_036	413881.56	3754678.28	113.11	0.00	113.11	
PERIOD		0.52405	ug/m^3	R_037	413881.56	3754703.28	113.22	0.00	113.22	
PERIOD		0.46963	ug/m^3	R_038	413881.56	3754728.28	113.49	0.00	113.49	
PERIOD		0.41257	ug/m^3	R_039	413881.56	3754753.28	113.77	0.00	113.77	
PERIOD		0.35647	ug/m^3	R_040	413881.56	3754778.28	114.04	0.00	114.04	

Sensitive Receptor Summary

Sonora High School
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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.30516	ug/m^3	R_041	413881.56	3754803.28	114.12	0.00	114.12	
PERIOD		0.68117	ug/m^3	R_042	413906.56	3754478.28	112.44	0.00	112.44	
PERIOD		0.71300	ug/m^3	R_043	413906.56	3754503.28	112.71	0.00	112.71	
PERIOD		0.73558	ug/m^3	R_044	413906.56	3754528.28	112.76	0.00	112.76	
PERIOD		0.74769	ug/m^3	R_045	413906.56	3754553.28	112.77	0.00	112.77	
PERIOD		0.74874	ug/m^3	R_046	413906.56	3754578.28	112.77	0.00	112.77	
PERIOD		0.73827	ug/m^3	R_047	413906.56	3754603.28	112.78	0.00	112.78	
PERIOD		0.71572	ug/m^3	R_048	413906.56	3754628.28	112.84	0.00	112.84	
PERIOD		0.68164	ug/m^3	R_049	413906.56	3754653.28	112.91	0.00	112.91	
PERIOD		0.63686	ug/m^3	R_050	413906.56	3754678.28	112.97	0.00	112.97	
PERIOD		0.58248	ug/m^3	R_051	413906.56	3754703.28	113.09	0.00	113.09	
PERIOD		0.52061	ug/m^3	R_052	413906.56	3754728.28	113.30	0.00	113.30	
PERIOD		0.45526	ug/m^3	R_053	413906.56	3754753.28	113.52	0.00	113.52	
PERIOD		0.39095	ug/m^3	R_054	413906.56	3754778.28	113.73	0.00	113.73	
PERIOD		0.33225	ug/m^3	R_055	413906.56	3754803.28	113.80	0.00	113.80	
PERIOD		0.28157	ug/m^3	R_056	413906.56	3754828.28	113.80	0.00	113.80	
PERIOD		0.23943	ug/m^3	R_057	413906.56	3754853.28	113.80	0.00	113.80	
PERIOD		0.75390	ug/m^3	R_058	413931.56	3754478.28	112.11	0.00	112.11	
PERIOD		0.79121	ug/m^3	R_059	413931.56	3754503.28	112.39	0.00	112.39	
PERIOD		0.81728	ug/m^3	R_060	413931.56	3754528.28	112.44	0.00	112.44	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.83219	ug/m^3	R_061	413931.56	3754553.28	112.44	0.00	112.44	
PERIOD		0.83535	ug/m^3	R_062	413931.56	3754578.28	112.44	0.00	112.44	
PERIOD		0.82586	ug/m^3	R_063	413931.56	3754603.28	112.47	0.00	112.47	
PERIOD		0.80225	ug/m^3	R_064	413931.56	3754628.28	112.62	0.00	112.62	
PERIOD		0.76523	ug/m^3	R_065	413931.56	3754653.28	112.77	0.00	112.77	
PERIOD		0.71517	ug/m^3	R_066	413931.56	3754678.28	112.92	0.00	112.92	
PERIOD		0.65355	ug/m^3	R_067	413931.56	3754703.28	113.05	0.00	113.05	
PERIOD		0.58288	ug/m^3	R_068	413931.56	3754728.28	113.18	0.00	113.18	
PERIOD		0.50746	ug/m^3	R_069	413931.56	3754753.28	113.31	0.00	113.31	
PERIOD		0.43306	ug/m^3	R_070	413931.56	3754778.28	113.43	0.00	113.43	
PERIOD		0.36531	ug/m^3	R_071	413931.56	3754803.28	113.47	0.00	113.47	
PERIOD		0.30742	ug/m^3	R_072	413931.56	3754828.28	113.47	0.00	113.47	
PERIOD		0.25989	ug/m^3	R_073	413931.56	3754853.28	113.48	0.00	113.48	
PERIOD		0.22197	ug/m^3	R_074	413931.56	3754878.28	113.49	0.00	113.49	
PERIOD		0.19166	ug/m^3	R_075	413931.56	3754903.28	113.76	0.00	113.76	
PERIOD		0.16802	ug/m^3	R_076	413931.56	3754928.28	114.04	0.00	114.04	
PERIOD		0.78455	ug/m^3	R_077	413956.56	3754453.28	111.52	0.00	111.52	
PERIOD		0.84093	ug/m^3	R_078	413956.56	3754478.28	111.79	0.00	111.79	
PERIOD		0.88369	ug/m^3	R_079	413956.56	3754503.28	112.07	0.00	112.07	
PERIOD		0.91366	ug/m^3	R_080	413956.56	3754528.28	112.11	0.00	112.11	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.93153	ug/m^3	R_081	413956.56	3754553.28	112.12	0.00	112.12	
PERIOD		0.93724	ug/m^3	R_082	413956.56	3754578.28	112.12	0.00	112.12	
PERIOD		0.93006	ug/m^3	R_083	413956.56	3754603.28	112.15	0.00	112.15	
PERIOD		0.90756	ug/m^3	R_084	413956.56	3754628.28	112.39	0.00	112.39	
PERIOD		0.86791	ug/m^3	R_085	413956.56	3754653.28	112.63	0.00	112.63	
PERIOD		0.81217	ug/m^3	R_086	413956.56	3754678.28	112.87	0.00	112.87	
PERIOD		0.74206	ug/m^3	R_087	413956.56	3754703.28	113.02	0.00	113.02	
PERIOD		0.66073	ug/m^3	R_088	413956.56	3754728.28	113.05	0.00	113.05	
PERIOD		0.57275	ug/m^3	R_089	413956.56	3754753.28	113.09	0.00	113.09	
PERIOD		0.48557	ug/m^3	R_090	413956.56	3754778.28	113.13	0.00	113.13	
PERIOD		0.40638	ug/m^3	R_091	413956.56	3754803.28	113.15	0.00	113.15	
PERIOD		0.33935	ug/m^3	R_092	413956.56	3754828.28	113.15	0.00	113.15	
PERIOD		0.28524	ug/m^3	R_093	413956.56	3754853.28	113.15	0.00	113.15	
PERIOD		0.24294	ug/m^3	R_094	413956.56	3754878.28	113.17	0.00	113.17	
PERIOD		0.20945	ug/m^3	R_095	413956.56	3754903.28	113.44	0.00	113.44	
PERIOD		0.18353	ug/m^3	R_096	413956.56	3754928.28	113.71	0.00	113.71	
PERIOD		0.88439	ug/m^3	R_097	413981.56	3754453.28	111.32	0.00	111.32	
PERIOD		0.94821	ug/m^3	R_098	413981.56	3754478.28	111.54	0.00	111.54	
PERIOD		0.99621	ug/m^3	R_099	413981.56	3754503.28	111.75	0.00	111.75	
PERIOD		1.02964	ug/m^3	R_100	413981.56	3754528.28	111.84	0.00	111.84	

Sensitive Receptor Summary

Sonora High School
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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.05048	ug/m^3	R_101	413981.56	3754553.28	111.90	0.00	111.90	
PERIOD		1.05942	ug/m^3	R_102	413981.56	3754578.28	111.95	0.00	111.95	
PERIOD		1.05531	ug/m^3	R_103	413981.56	3754603.28	112.03	0.00	112.03	
PERIOD		1.03612	ug/m^3	R_104	413981.56	3754628.28	112.25	0.00	112.25	
PERIOD		0.99645	ug/m^3	R_105	413981.56	3754653.28	112.47	0.00	112.47	
PERIOD		0.93576	ug/m^3	R_106	413981.56	3754678.28	112.69	0.00	112.69	
PERIOD		0.85624	ug/m^3	R_107	413981.56	3754703.28	112.81	0.00	112.81	
PERIOD		0.76110	ug/m^3	R_108	413981.56	3754728.28	112.81	0.00	112.81	
PERIOD		0.65651	ug/m^3	R_109	413981.56	3754753.28	112.82	0.00	112.82	
PERIOD		0.55207	ug/m^3	R_110	413981.56	3754778.28	112.82	0.00	112.82	
PERIOD		0.45766	ug/m^3	R_111	413981.56	3754803.28	112.86	0.00	112.86	
PERIOD		0.37929	ug/m^3	R_112	413981.56	3754828.28	112.91	0.00	112.91	
PERIOD		0.31697	ug/m^3	R_113	413981.56	3754853.28	112.96	0.00	112.96	
PERIOD		0.26928	ug/m^3	R_114	413981.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.23189	ug/m^3	R_115	413981.56	3754903.28	113.24	0.00	113.24	
PERIOD		0.20317	ug/m^3	R_116	413981.56	3754928.28	113.46	0.00	113.46	
PERIOD		0.91890	ug/m^3	R_117	414006.56	3754428.28	111.07	0.00	111.07	
PERIOD		1.01246	ug/m^3	R_118	414006.56	3754453.28	111.19	0.00	111.19	
PERIOD		1.08454	ug/m^3	R_119	414006.56	3754478.28	111.32	0.00	111.32	
PERIOD		1.13717	ug/m^3	R_120	414006.56	3754503.28	111.44	0.00	111.44	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.17413	ug/m^3	R_121	414006.56	3754528.28	111.59	0.00	111.59	
PERIOD		1.19843	ug/m^3	R_122	414006.56	3754553.28	111.73	0.00	111.73	
PERIOD		1.21119	ug/m^3	R_123	414006.56	3754578.28	111.88	0.00	111.88	
PERIOD		1.21146	ug/m^3	R_124	414006.56	3754603.28	112.02	0.00	112.02	
PERIOD		1.19596	ug/m^3	R_125	414006.56	3754628.28	112.15	0.00	112.15	
PERIOD		1.15982	ug/m^3	R_126	414006.56	3754653.28	112.28	0.00	112.28	
PERIOD		1.09585	ug/m^3	R_127	414006.56	3754678.28	112.41	0.00	112.41	
PERIOD		1.00536	ug/m^3	R_128	414006.56	3754703.28	112.49	0.00	112.49	
PERIOD		0.89211	ug/m^3	R_129	414006.56	3754728.28	112.49	0.00	112.49	
PERIOD		0.76499	ug/m^3	R_130	414006.56	3754753.28	112.49	0.00	112.49	
PERIOD		0.63635	ug/m^3	R_131	414006.56	3754778.28	112.49	0.00	112.49	
PERIOD		0.52134	ug/m^3	R_132	414006.56	3754803.28	112.60	0.00	112.60	
PERIOD		0.42847	ug/m^3	R_133	414006.56	3754828.28	112.74	0.00	112.74	
PERIOD		0.35703	ug/m^3	R_134	414006.56	3754853.28	112.87	0.00	112.87	
PERIOD		0.30252	ug/m^3	R_135	414006.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.26092	ug/m^3	R_136	414006.56	3754903.28	113.15	0.00	113.15	
PERIOD		0.22852	ug/m^3	R_137	414006.56	3754928.28	113.29	0.00	113.29	
PERIOD		1.07082	ug/m^3	R_138	414031.56	3754428.28	111.02	0.00	111.02	
PERIOD		1.18165	ug/m^3	R_139	414031.56	3754453.28	111.06	0.00	111.06	
PERIOD		1.26305	ug/m^3	R_140	414031.56	3754478.28	111.09	0.00	111.09	

Sensitive Receptor Summary

Sonora High School
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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.32023	ug/m^3	R_141	414031.56	3754503.28	111.13	0.00	111.13	
PERIOD		1.36066	ug/m^3	R_142	414031.56	3754528.28	111.34	0.00	111.34	
PERIOD		1.38880	ug/m^3	R_143	414031.56	3754553.28	111.57	0.00	111.57	
PERIOD		1.40610	ug/m^3	R_144	414031.56	3754578.28	111.81	0.00	111.81	
PERIOD		1.41106	ug/m^3	R_145	414031.56	3754603.28	112.01	0.00	112.01	
PERIOD		1.40037	ug/m^3	R_146	414031.56	3754628.28	112.05	0.00	112.05	
PERIOD		1.36683	ug/m^3	R_147	414031.56	3754653.28	112.09	0.00	112.09	
PERIOD		1.30157	ug/m^3	R_148	414031.56	3754678.28	112.14	0.00	112.14	
PERIOD		1.19878	ug/m^3	R_149	414031.56	3754703.28	112.16	0.00	112.16	
PERIOD		1.06133	ug/m^3	R_150	414031.56	3754728.28	112.16	0.00	112.16	
PERIOD		0.90268	ug/m^3	R_151	414031.56	3754753.28	112.17	0.00	112.17	
PERIOD		0.74159	ug/m^3	R_152	414031.56	3754778.28	112.17	0.00	112.17	
PERIOD		0.60058	ug/m^3	R_153	414031.56	3754803.28	112.34	0.00	112.34	
PERIOD		0.48953	ug/m^3	R_154	414031.56	3754828.28	112.57	0.00	112.57	
PERIOD		0.40919	ug/m^3	R_155	414031.56	3754853.28	112.79	0.00	112.79	
PERIOD		0.34700	ug/m^3	R_156	414031.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.29928	ug/m^3	R_157	414031.56	3754903.28	113.05	0.00	113.05	
PERIOD		0.26144	ug/m^3	R_158	414031.56	3754928.28	113.11	0.00	113.11	
PERIOD		1.10909	ug/m^3	R_159	414056.56	3754403.28	110.68	0.00	110.68	
PERIOD		1.28435	ug/m^3	R_160	414056.56	3754428.28	110.80	0.00	110.80	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.41553	ug/m^3	R_161	414056.56	3754453.28	110.81	0.00	110.81	
PERIOD		1.50601	ug/m^3	R_162	414056.56	3754478.28	110.81	0.00	110.81	
PERIOD		1.56823	ug/m^3	R_163	414056.56	3754503.28	110.81	0.00	110.81	
PERIOD		1.61243	ug/m^3	R_164	414056.56	3754528.28	111.05	0.00	111.05	
PERIOD		1.64445	ug/m^3	R_165	414056.56	3754553.28	111.32	0.00	111.32	
PERIOD		1.66556	ug/m^3	R_166	414056.56	3754578.28	111.60	0.00	111.60	
PERIOD		1.67480	ug/m^3	R_167	414056.56	3754603.28	111.82	0.00	111.82	
PERIOD		1.66763	ug/m^3	R_168	414056.56	3754628.28	111.83	0.00	111.83	
PERIOD		1.63798	ug/m^3	R_169	414056.56	3754653.28	111.83	0.00	111.83	
PERIOD		1.57351	ug/m^3	R_170	414056.56	3754678.28	111.83	0.00	111.83	
PERIOD		1.45906	ug/m^3	R_171	414056.56	3754703.28	111.86	0.00	111.86	
PERIOD		1.29062	ug/m^3	R_172	414056.56	3754728.28	111.90	0.00	111.90	
PERIOD		1.08626	ug/m^3	R_173	414056.56	3754753.28	111.95	0.00	111.95	
PERIOD		0.87544	ug/m^3	R_174	414056.56	3754778.28	111.99	0.00	111.99	
PERIOD		0.69533	ug/m^3	R_175	414056.56	3754803.28	112.21	0.00	112.21	
PERIOD		0.56303	ug/m^3	R_176	414056.56	3754828.28	112.48	0.00	112.48	
PERIOD		0.47274	ug/m^3	R_177	414056.56	3754853.28	112.75	0.00	112.75	
PERIOD		0.40626	ug/m^3	R_178	414056.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.34930	ug/m^3	R_179	414056.56	3754903.28	113.00	0.00	113.00	
PERIOD		0.30290	ug/m^3	R_180	414056.56	3754928.28	113.00	0.00	113.00	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.36245	ug/m^3	R_181	414081.56	3754403.28	110.36	0.00	110.36	
PERIOD		1.59747	ug/m^3	R_182	414081.56	3754428.28	110.48	0.00	110.48	
PERIOD		1.75805	ug/m^3	R_183	414081.56	3754453.28	110.48	0.00	110.48	
PERIOD		1.86098	ug/m^3	R_184	414081.56	3754478.28	110.49	0.00	110.49	
PERIOD		1.92677	ug/m^3	R_185	414081.56	3754503.28	110.49	0.00	110.49	
PERIOD		1.97377	ug/m^3	R_186	414081.56	3754528.28	110.73	0.00	110.73	
PERIOD		2.00629	ug/m^3	R_187	414081.56	3754553.28	111.00	0.00	111.00	
PERIOD		2.03141	ug/m^3	R_188	414081.56	3754578.28	111.28	0.00	111.28	
PERIOD		2.04595	ug/m^3	R_189	414081.56	3754603.28	111.50	0.00	111.50	
PERIOD		2.04619	ug/m^3	R_190	414081.56	3754628.28	111.50	0.00	111.50	
PERIOD		2.02306	ug/m^3	R_191	414081.56	3754653.28	111.51	0.00	111.51	
PERIOD		1.96074	ug/m^3	R_192	414081.56	3754678.28	111.51	0.00	111.51	
PERIOD		1.83649	ug/m^3	R_193	414081.56	3754703.28	111.58	0.00	111.58	
PERIOD		1.62407	ug/m^3	R_194	414081.56	3754728.28	111.71	0.00	111.71	
PERIOD		1.34949	ug/m^3	R_195	414081.56	3754753.28	111.84	0.00	111.84	
PERIOD		1.06256	ug/m^3	R_196	414081.56	3754778.28	111.97	0.00	111.97	
PERIOD		0.82480	ug/m^3	R_197	414081.56	3754803.28	112.21	0.00	112.21	
PERIOD		0.66200	ug/m^3	R_198	414081.56	3754828.28	112.48	0.00	112.48	
PERIOD		0.56094	ug/m^3	R_199	414081.56	3754853.28	112.75	0.00	112.75	
PERIOD		0.48635	ug/m^3	R_200	414081.56	3754878.28	113.00	0.00	113.00	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.41171	ug/m^3	R_201	414081.56	3754903.28	113.00	0.00	113.00	
PERIOD		0.35244	ug/m^3	R_202	414081.56	3754928.28	113.00	0.00	113.00	
PERIOD		1.30452	ug/m^3	R_203	414106.56	3754378.28	109.77	0.00	109.77	
PERIOD		1.75608	ug/m^3	R_204	414106.56	3754403.28	110.04	0.00	110.04	
PERIOD		2.07733	ug/m^3	R_205	414106.56	3754428.28	110.16	0.00	110.16	
PERIOD		2.27926	ug/m^3	R_206	414106.56	3754453.28	110.16	0.00	110.16	
PERIOD		2.40733	ug/m^3	R_207	414106.56	3754478.28	110.16	0.00	110.16	
PERIOD		2.49519	ug/m^3	R_208	414106.56	3754503.28	110.16	0.00	110.16	
PERIOD		2.56684	ug/m^3	R_209	414106.56	3754528.28	110.41	0.00	110.41	
PERIOD		2.62292	ug/m^3	R_210	414106.56	3754553.28	110.68	0.00	110.68	
PERIOD		2.66476	ug/m^3	R_211	414106.56	3754578.28	110.95	0.00	110.95	
PERIOD		2.68985	ug/m^3	R_212	414106.56	3754603.28	111.18	0.00	111.18	
PERIOD		2.69166	ug/m^3	R_213	414106.56	3754628.28	111.18	0.00	111.18	
PERIOD		2.66888	ug/m^3	R_214	414106.56	3754653.28	111.18	0.00	111.18	
PERIOD		2.60695	ug/m^3	R_215	414106.56	3754678.28	111.18	0.00	111.18	
PERIOD		2.47876	ug/m^3	R_216	414106.56	3754703.28	111.30	0.00	111.30	
PERIOD		2.22340	ug/m^3	R_217	414106.56	3754728.28	111.52	0.00	111.52	
PERIOD		1.80981	ug/m^3	R_218	414106.56	3754753.28	111.74	0.00	111.74	
PERIOD		1.37254	ug/m^3	R_219	414106.56	3754778.28	111.96	0.00	111.96	
PERIOD		1.02456	ug/m^3	R_220	414106.56	3754803.28	112.22	0.00	112.22	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.79416	ug/m^3	R_221	414106.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.68363	ug/m^3	R_222	414106.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.58886	ug/m^3	R_223	414106.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.48389	ug/m^3	R_224	414106.56	3754903.28	113.00	0.00	113.00	
PERIOD		0.40992	ug/m^3	R_225	414106.56	3754928.28	113.00	0.00	113.00	
PERIOD		1.71220	ug/m^3	R_226	414131.56	3754378.28	109.44	0.00	109.44	
PERIOD		2.46260	ug/m^3	R_227	414131.56	3754403.28	109.72	0.00	109.72	
PERIOD		2.92267	ug/m^3	R_228	414131.56	3754428.28	109.86	0.00	109.86	
PERIOD		3.21457	ug/m^3	R_229	414131.56	3754453.28	109.91	0.00	109.91	
PERIOD		3.40909	ug/m^3	R_230	414131.56	3754478.28	109.95	0.00	109.95	
PERIOD		3.54621	ug/m^3	R_231	414131.56	3754503.28	110.00	0.00	110.00	
PERIOD		3.65694	ug/m^3	R_232	414131.56	3754528.28	110.20	0.00	110.20	
PERIOD		3.73730	ug/m^3	R_233	414131.56	3754553.28	110.43	0.00	110.43	
PERIOD		3.78847	ug/m^3	R_234	414131.56	3754578.28	110.66	0.00	110.66	
PERIOD		3.82210	ug/m^3	R_235	414131.56	3754603.28	110.86	0.00	110.86	
PERIOD		3.82785	ug/m^3	R_236	414131.56	3754628.28	110.90	0.00	110.90	
PERIOD		3.80846	ug/m^3	R_237	414131.56	3754653.28	110.94	0.00	110.94	
PERIOD		3.73893	ug/m^3	R_238	414131.56	3754678.28	110.98	0.00	110.98	
PERIOD		3.60658	ug/m^3	R_239	414131.56	3754703.28	111.14	0.00	111.14	
PERIOD		3.32627	ug/m^3	R_240	414131.56	3754728.28	111.41	0.00	111.41	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.73793	ug/m^3	R_241	414131.56	3754753.28	111.68	0.00	111.68	
PERIOD		1.84959	ug/m^3	R_242	414131.56	3754778.28	111.95	0.00	111.95	
PERIOD		1.28674	ug/m^3	R_243	414131.56	3754803.28	112.22	0.00	112.22	
PERIOD		0.96753	ug/m^3	R_244	414131.56	3754828.28	112.49	0.00	112.49	
PERIOD		0.82605	ug/m^3	R_245	414131.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.69525	ug/m^3	R_246	414131.56	3754878.28	113.00	0.00	113.00	
PERIOD		0.57003	ug/m^3	R_247	414131.56	3754903.28	113.03	0.00	113.03	
PERIOD		0.48285	ug/m^3	R_248	414131.56	3754928.28	113.06	0.00	113.06	
PERIOD		0.41681	ug/m^3	R_249	414131.56	3754953.28	113.09	0.00	113.09	
PERIOD		2.31709	ug/m^3	R_250	414156.56	3754378.28	109.12	0.00	109.12	
PERIOD		3.77218	ug/m^3	R_251	414156.56	3754403.28	109.39	0.00	109.39	
PERIOD		4.66461	ug/m^3	R_252	414156.56	3754428.28	109.59	0.00	109.59	
PERIOD		5.17365	ug/m^3	R_253	414156.56	3754453.28	109.72	0.00	109.72	
PERIOD		5.47403	ug/m^3	R_254	414156.56	3754478.28	109.86	0.00	109.86	
PERIOD		5.67191	ug/m^3	R_255	414156.56	3754503.28	109.99	0.00	109.99	
PERIOD		5.81408	ug/m^3	R_256	414156.56	3754528.28	110.13	0.00	110.13	
PERIOD		5.91139	ug/m^3	R_257	414156.56	3754553.28	110.27	0.00	110.27	
PERIOD		5.97333	ug/m^3	R_258	414156.56	3754578.28	110.41	0.00	110.41	
PERIOD		6.01135	ug/m^3	R_259	414156.56	3754603.28	110.55	0.00	110.55	
PERIOD		6.03796	ug/m^3	R_260	414156.56	3754628.28	110.68	0.00	110.68	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		6.03214	ug/m^3	R_261	414156.56	3754653.28	110.81	0.00	110.81	
PERIOD		5.96246	ug/m^3	R_262	414156.56	3754678.28	110.94	0.00	110.94	
PERIOD		5.81043	ug/m^3	R_263	414156.56	3754703.28	111.14	0.00	111.14	
PERIOD		5.48251	ug/m^3	R_264	414156.56	3754728.28	111.41	0.00	111.41	
PERIOD		4.66249	ug/m^3	R_265	414156.56	3754753.28	111.68	0.00	111.68	
PERIOD		2.94174	ug/m^3	R_266	414156.56	3754778.28	111.95	0.00	111.95	
PERIOD		1.86798	ug/m^3	R_267	414156.56	3754803.28	112.22	0.00	112.22	
PERIOD		1.32515	ug/m^3	R_268	414156.56	3754828.28	112.49	0.00	112.49	
PERIOD		1.14837	ug/m^3	R_269	414156.56	3754853.28	112.76	0.00	112.76	
PERIOD		0.84958	ug/m^3	R_270	414156.56	3754878.28	113.01	0.00	113.01	
PERIOD		0.69388	ug/m^3	R_271	414156.56	3754903.28	113.13	0.00	113.13	
PERIOD		0.58150	ug/m^3	R_272	414156.56	3754928.28	113.25	0.00	113.25	
PERIOD		0.49639	ug/m^3	R_273	414156.56	3754953.28	113.36	0.00	113.36	
PERIOD		5.50018	ug/m^3	R_274	414181.56	3754778.28	111.95	0.00	111.95	
PERIOD		2.95263	ug/m^3	R_275	414181.56	3754803.28	112.22	0.00	112.22	
PERIOD		1.92370	ug/m^3	R_276	414181.56	3754828.28	112.49	0.00	112.49	
PERIOD		1.42352	ug/m^3	R_277	414181.56	3754853.28	112.76	0.00	112.76	
PERIOD		1.05802	ug/m^3	R_278	414181.56	3754878.28	113.03	0.00	113.03	
PERIOD		0.85356	ug/m^3	R_279	414181.56	3754903.28	113.23	0.00	113.23	
PERIOD		0.70532	ug/m^3	R_280	414181.56	3754928.28	113.44	0.00	113.44	

Sensitive Receptor Summary

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.59415	ug/m^3	R_281	414181.56	3754953.28	113.64	0.00	113.64	
PERIOD		7.29449	ug/m^3	R_282	414206.56	3754778.28	112.06	0.00	112.06	
PERIOD		3.96950	ug/m^3	R_283	414206.56	3754803.28	112.32	0.00	112.32	
PERIOD		2.51445	ug/m^3	R_284	414206.56	3754828.28	112.59	0.00	112.59	
PERIOD		1.76972	ug/m^3	R_285	414206.56	3754853.28	112.86	0.00	112.86	
PERIOD		1.31195	ug/m^3	R_286	414206.56	3754878.28	113.13	0.00	113.13	
PERIOD		1.04477	ug/m^3	R_287	414206.56	3754903.28	113.39	0.00	113.39	
PERIOD		0.85203	ug/m^3	R_288	414206.56	3754928.28	113.66	0.00	113.66	
PERIOD		0.70875	ug/m^3	R_289	414206.56	3754953.28	113.93	0.00	113.93	
PERIOD		8.28946	ug/m^3	R_290	414231.56	3754778.28	112.38	0.00	112.38	
PERIOD		4.58832	ug/m^3	R_291	414231.56	3754803.28	112.65	0.00	112.65	
PERIOD		3.00070	ug/m^3	R_292	414231.56	3754828.28	112.92	0.00	112.92	
PERIOD		2.13951	ug/m^3	R_293	414231.56	3754853.28	113.19	0.00	113.19	
PERIOD		1.58856	ug/m^3	R_294	414231.56	3754878.28	113.45	0.00	113.45	
PERIOD		1.25361	ug/m^3	R_295	414231.56	3754903.28	113.72	0.00	113.72	
PERIOD		1.01329	ug/m^3	R_296	414231.56	3754928.28	113.99	0.00	113.99	
PERIOD		0.83524	ug/m^3	R_297	414231.56	3754953.28	114.26	0.00	114.26	
PERIOD		8.78360	ug/m^3	R_298	414256.56	3754778.28	112.71	0.00	112.71	
PERIOD		5.00469	ug/m^3	R_299	414256.56	3754803.28	112.98	0.00	112.98	
PERIOD		3.40183	ug/m^3	R_300	414256.56	3754828.28	113.25	0.00	113.25	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.47832	ug/m^3	R_301	414256.56	3754853.28	113.51	0.00	113.51	
PERIOD		1.85508	ug/m^3	R_302	414256.56	3754878.28	113.78	0.00	113.78	
PERIOD		1.46003	ug/m^3	R_303	414256.56	3754903.28	114.05	0.00	114.05	
PERIOD		1.17587	ug/m^3	R_304	414256.56	3754928.28	114.32	0.00	114.32	
PERIOD		0.96464	ug/m^3	R_305	414256.56	3754953.28	114.58	0.00	114.58	
PERIOD		9.02702	ug/m^3	R_306	414281.56	3754778.28	112.96	0.00	112.96	
PERIOD		5.30863	ug/m^3	R_307	414281.56	3754803.28	113.23	0.00	113.23	
PERIOD		3.67398	ug/m^3	R_308	414281.56	3754828.28	113.50	0.00	113.50	
PERIOD		2.73352	ug/m^3	R_309	414281.56	3754853.28	113.77	0.00	113.77	
PERIOD		2.07524	ug/m^3	R_310	414281.56	3754878.28	114.04	0.00	114.04	
PERIOD		1.63892	ug/m^3	R_311	414281.56	3754903.28	114.31	0.00	114.31	
PERIOD		1.32226	ug/m^3	R_312	414281.56	3754928.28	114.58	0.00	114.58	
PERIOD		1.08460	ug/m^3	R_313	414281.56	3754953.28	114.86	0.00	114.86	
PERIOD		9.11414	ug/m^3	R_314	414306.56	3754778.28	112.98	0.00	112.98	
PERIOD		5.51687	ug/m^3	R_315	414306.56	3754803.28	113.23	0.00	113.23	
PERIOD		3.83130	ug/m^3	R_316	414306.56	3754828.28	113.51	0.00	113.51	
PERIOD		2.89150	ug/m^3	R_317	414306.56	3754853.28	113.78	0.00	113.78	
PERIOD		2.22598	ug/m^3	R_318	414306.56	3754878.28	114.05	0.00	114.05	
PERIOD		1.77276	ug/m^3	R_319	414306.56	3754903.28	114.32	0.00	114.32	
PERIOD		1.43953	ug/m^3	R_320	414306.56	3754928.28	114.59	0.00	114.59	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.18588	ug/m^3	R_321	414306.56	3754953.28	114.86	0.00	114.86	
PERIOD		8.96092	ug/m^3	R_322	414331.56	3754778.28	112.99	0.00	112.99	
PERIOD		5.57452	ug/m^3	R_323	414331.56	3754803.28	113.24	0.00	113.24	
PERIOD		3.86819	ug/m^3	R_324	414331.56	3754828.28	113.51	0.00	113.51	
PERIOD		2.94140	ug/m^3	R_325	414331.56	3754853.28	113.78	0.00	113.78	
PERIOD		2.29905	ug/m^3	R_326	414331.56	3754878.28	114.05	0.00	114.05	
PERIOD		1.84814	ug/m^3	R_327	414331.56	3754903.28	114.32	0.00	114.32	
PERIOD		1.51414	ug/m^3	R_328	414331.56	3754928.28	114.59	0.00	114.59	
PERIOD		1.25653	ug/m^3	R_329	414331.56	3754953.28	114.86	0.00	114.86	
PERIOD		8.50073	ug/m^3	R_330	414356.56	3754778.28	113.05	0.00	113.05	
PERIOD		5.42302	ug/m^3	R_331	414356.56	3754803.28	113.29	0.00	113.29	
PERIOD		3.80617	ug/m^3	R_332	414356.56	3754828.28	113.55	0.00	113.55	
PERIOD		2.90561	ug/m^3	R_333	414356.56	3754853.28	113.82	0.00	113.82	
PERIOD		2.29713	ug/m^3	R_334	414356.56	3754878.28	114.09	0.00	114.09	
PERIOD		1.86241	ug/m^3	R_335	414356.56	3754903.28	114.36	0.00	114.36	
PERIOD		1.54119	ug/m^3	R_336	414356.56	3754928.28	114.62	0.00	114.62	
PERIOD		1.29112	ug/m^3	R_337	414356.56	3754953.28	114.89	0.00	114.89	
PERIOD		7.40920	ug/m^3	R_338	414381.56	3754778.28	113.36	0.00	113.36	
PERIOD		5.00791	ug/m^3	R_339	414381.56	3754803.28	113.61	0.00	113.61	
PERIOD		3.61571	ug/m^3	R_340	414381.56	3754828.28	113.88	0.00	113.88	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.77544	ug/m^3	R_341	414381.56	3754853.28	114.15	0.00	114.15	
PERIOD		2.21772	ug/m^3	R_342	414381.56	3754878.28	114.42	0.00	114.42	
PERIOD		1.81820	ug/m^3	R_343	414381.56	3754903.28	114.68	0.00	114.68	
PERIOD		1.52052	ug/m^3	R_344	414381.56	3754928.28	114.95	0.00	114.95	
PERIOD		1.28726	ug/m^3	R_345	414381.56	3754953.28	115.22	0.00	115.22	
PERIOD		5.07947	ug/m^3	R_346	414406.56	3754778.28	113.68	0.00	113.68	
PERIOD		4.02812	ug/m^3	R_347	414406.56	3754803.28	113.94	0.00	113.94	
PERIOD		3.13914	ug/m^3	R_348	414406.56	3754828.28	114.21	0.00	114.21	
PERIOD		2.50905	ug/m^3	R_349	414406.56	3754853.28	114.48	0.00	114.48	
PERIOD		2.05344	ug/m^3	R_350	414406.56	3754878.28	114.74	0.00	114.74	
PERIOD		1.71505	ug/m^3	R_351	414406.56	3754903.28	115.01	0.00	115.01	
PERIOD		1.45594	ug/m^3	R_352	414406.56	3754928.28	115.28	0.00	115.28	
PERIOD		1.24899	ug/m^3	R_353	414406.56	3754953.28	115.55	0.00	115.55	
PERIOD		3.19061	ug/m^3	R_354	414431.56	3754778.28	113.98	0.00	113.98	
PERIOD		2.90309	ug/m^3	R_355	414431.56	3754803.28	114.25	0.00	114.25	
PERIOD		2.50514	ug/m^3	R_356	414431.56	3754828.28	114.52	0.00	114.52	
PERIOD		2.13202	ug/m^3	R_357	414431.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.81770	ug/m^3	R_358	414431.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.56104	ug/m^3	R_359	414431.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.35194	ug/m^3	R_360	414431.56	3754928.28	115.60	0.00	115.60	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.17889	ug/m^3	R_361	414431.56	3754953.28	115.87	0.00	115.87	
PERIOD		2.24717	ug/m^3	R_362	414456.56	3754778.28	113.98	0.00	113.98	
PERIOD		2.12908	ug/m^3	R_363	414456.56	3754803.28	114.25	0.00	114.25	
PERIOD		1.95034	ug/m^3	R_364	414456.56	3754828.28	114.52	0.00	114.52	
PERIOD		1.75116	ug/m^3	R_365	414456.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.55588	ug/m^3	R_366	414456.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.37877	ug/m^3	R_367	414456.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.22299	ug/m^3	R_368	414456.56	3754928.28	115.60	0.00	115.60	
PERIOD		1.08721	ug/m^3	R_369	414456.56	3754953.28	115.87	0.00	115.87	
PERIOD		1.65195	ug/m^3	R_370	414481.56	3754778.28	113.98	0.00	113.98	
PERIOD		1.60211	ug/m^3	R_371	414481.56	3754803.28	114.25	0.00	114.25	
PERIOD		1.52072	ug/m^3	R_372	414481.56	3754828.28	114.52	0.00	114.52	
PERIOD		1.41690	ug/m^3	R_373	414481.56	3754853.28	114.79	0.00	114.79	
PERIOD		1.30306	ug/m^3	R_374	414481.56	3754878.28	115.06	0.00	115.06	
PERIOD		1.18937	ug/m^3	R_375	414481.56	3754903.28	115.33	0.00	115.33	
PERIOD		1.08112	ug/m^3	R_376	414481.56	3754928.28	115.60	0.00	115.60	
PERIOD		0.98081	ug/m^3	R_377	414481.56	3754953.28	115.87	0.00	115.87	
PERIOD		1.26847	ug/m^3	R_378	414506.56	3754778.28	113.98	0.00	113.98	
PERIOD		1.24234	ug/m^3	R_379	414506.56	3754803.28	114.25	0.00	114.25	
PERIOD		1.20158	ug/m^3	R_380	414506.56	3754828.28	114.52	0.00	114.52	

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PERIOD		1.14679	ug/m^3	R_381	414506.56	3754853.28	114.80	0.00	114.80	
PERIOD		1.08218	ug/m^3	R_382	414506.56	3754878.28	115.07	0.00	115.07	
PERIOD		1.01213	ug/m^3	R_383	414506.56	3754903.28	115.34	0.00	115.34	
PERIOD		0.94056	ug/m^3	R_384	414506.56	3754928.28	115.61	0.00	115.61	
PERIOD		0.87005	ug/m^3	R_385	414506.56	3754953.28	115.88	0.00	115.88	
PERIOD		1.00292	ug/m^3	R_386	414531.56	3754778.28	113.99	0.00	113.99	
PERIOD		0.98849	ug/m^3	R_387	414531.56	3754803.28	114.26	0.00	114.26	
PERIOD		0.96631	ug/m^3	R_388	414531.56	3754828.28	114.53	0.00	114.53	
PERIOD		0.93628	ug/m^3	R_389	414531.56	3754853.28	114.80	0.00	114.80	
PERIOD		0.89925	ug/m^3	R_390	414531.56	3754878.28	115.07	0.00	115.07	
PERIOD		0.85678	ug/m^3	R_391	414531.56	3754903.28	115.34	0.00	115.34	
PERIOD		0.81078	ug/m^3	R_392	414531.56	3754928.28	115.61	0.00	115.61	
PERIOD		0.76297	ug/m^3	R_393	414531.56	3754953.28	115.88	0.00	115.88	
PERIOD		0.40622	ug/m^3	R_394	414571.80	3754431.75	111.21	0.00	111.21	
PERIOD		0.38407	ug/m^3	R_395	414596.80	3754456.75	111.31	0.00	111.31	
PERIOD		0.41178	ug/m^3	R_396	414596.80	3754481.75	111.58	0.00	111.58	
PERIOD		0.43871	ug/m^3	R_397	414596.80	3754506.75	111.81	0.00	111.81	
PERIOD		0.46475	ug/m^3	R_398	414596.80	3754531.75	111.87	0.00	111.87	
PERIOD		0.48953	ug/m^3	R_399	414596.80	3754556.75	111.92	0.00	111.92	
PERIOD		0.51291	ug/m^3	R_400	414596.80	3754581.75	111.97	0.00	111.97	

Sensitive Receptor Summary

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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.53466	ug/m^3	R_401	414596.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.55349	ug/m^3	R_402	414596.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.56850	ug/m^3	R_403	414596.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.58057	ug/m^3	R_404	414596.80	3754681.75	112.95	0.00	112.95	
PERIOD		0.58936	ug/m^3	R_405	414596.80	3754706.75	113.22	0.00	113.22	
PERIOD		0.59463	ug/m^3	R_406	414596.80	3754731.75	113.49	0.00	113.49	
PERIOD		0.59656	ug/m^3	R_407	414596.80	3754756.75	113.76	0.00	113.76	
PERIOD		0.59554	ug/m^3	R_408	414596.80	3754781.75	114.03	0.00	114.03	
PERIOD		0.59202	ug/m^3	R_409	414596.80	3754806.75	114.30	0.00	114.30	
PERIOD		0.58635	ug/m^3	R_410	414596.80	3754831.75	114.57	0.00	114.57	
PERIOD		0.57864	ug/m^3	R_411	414596.80	3754856.75	114.84	0.00	114.84	
PERIOD		0.56888	ug/m^3	R_412	414596.80	3754881.75	115.11	0.00	115.11	
PERIOD		0.55699	ug/m^3	R_413	414596.80	3754906.75	115.38	0.00	115.38	
PERIOD		0.54298	ug/m^3	R_414	414596.80	3754931.75	115.65	0.00	115.65	
PERIOD		0.52693	ug/m^3	R_415	414596.80	3754956.75	115.92	0.00	115.92	
PERIOD		0.33726	ug/m^3	R_416	414621.80	3754456.75	110.99	0.00	110.99	
PERIOD		0.35925	ug/m^3	R_417	414621.80	3754481.75	111.26	0.00	111.26	
PERIOD		0.38042	ug/m^3	R_418	414621.80	3754506.75	111.51	0.00	111.51	
PERIOD		0.40063	ug/m^3	R_419	414621.80	3754531.75	111.65	0.00	111.65	
PERIOD		0.41969	ug/m^3	R_420	414621.80	3754556.75	111.79	0.00	111.79	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.43758	ug/m^3	R_421	414621.80	3754581.75	111.93	0.00	111.93	
PERIOD		0.45409	ug/m^3	R_422	414621.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.46828	ug/m^3	R_423	414621.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.47948	ug/m^3	R_424	414621.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.48852	ug/m^3	R_425	414621.80	3754681.75	112.95	0.00	112.95	
PERIOD		0.49519	ug/m^3	R_426	414621.80	3754706.75	113.22	0.00	113.22	
PERIOD		0.49938	ug/m^3	R_427	414621.80	3754731.75	113.49	0.00	113.49	
PERIOD		0.50121	ug/m^3	R_428	414621.80	3754756.75	113.76	0.00	113.76	
PERIOD		0.50095	ug/m^3	R_429	414621.80	3754781.75	114.03	0.00	114.03	
PERIOD		0.49895	ug/m^3	R_430	414621.80	3754806.75	114.30	0.00	114.30	
PERIOD		0.49551	ug/m^3	R_431	414621.80	3754831.75	114.57	0.00	114.57	
PERIOD		0.49078	ug/m^3	R_432	414621.80	3754856.75	114.84	0.00	114.84	
PERIOD		0.48479	ug/m^3	R_433	414621.80	3754881.75	115.11	0.00	115.11	
PERIOD		0.47741	ug/m^3	R_434	414621.80	3754906.75	115.39	0.00	115.39	
PERIOD		0.46863	ug/m^3	R_435	414621.80	3754931.75	115.66	0.00	115.66	
PERIOD		0.29866	ug/m^3	R_436	414646.80	3754456.75	110.66	0.00	110.66	
PERIOD		0.31633	ug/m^3	R_437	414646.80	3754481.75	110.94	0.00	110.94	
PERIOD		0.33322	ug/m^3	R_438	414646.80	3754506.75	111.20	0.00	111.20	
PERIOD		0.34915	ug/m^3	R_439	414646.80	3754531.75	111.43	0.00	111.43	
PERIOD		0.36402	ug/m^3	R_440	414646.80	3754556.75	111.66	0.00	111.66	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.37780	ug/m^3	R_441	414646.80	3754581.75	111.89	0.00	111.89	
PERIOD		0.39046	ug/m^3	R_442	414646.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.40123	ug/m^3	R_443	414646.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.40966	ug/m^3	R_444	414646.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.41645	ug/m^3	R_445	414646.80	3754681.75	112.95	0.00	112.95	
PERIOD		0.42149	ug/m^3	R_446	414646.80	3754706.75	113.22	0.00	113.22	
PERIOD		0.42476	ug/m^3	R_447	414646.80	3754731.75	113.49	0.00	113.49	
PERIOD		0.42631	ug/m^3	R_448	414646.80	3754756.75	113.76	0.00	113.76	
PERIOD		0.42639	ug/m^3	R_449	414646.80	3754781.75	114.03	0.00	114.03	
PERIOD		0.42517	ug/m^3	R_450	414646.80	3754806.75	114.31	0.00	114.31	
PERIOD		0.42302	ug/m^3	R_451	414646.80	3754831.75	114.58	0.00	114.58	
PERIOD		0.42003	ug/m^3	R_452	414646.80	3754856.75	114.85	0.00	114.85	
PERIOD		0.41627	ug/m^3	R_453	414646.80	3754881.75	115.12	0.00	115.12	
PERIOD		0.31882	ug/m^3	R_454	414671.80	3754556.75	111.60	0.00	111.60	
PERIOD		0.32960	ug/m^3	R_455	414671.80	3754581.75	111.87	0.00	111.87	
PERIOD		0.33942	ug/m^3	R_456	414671.80	3754606.75	112.14	0.00	112.14	
PERIOD		0.34768	ug/m^3	R_457	414671.80	3754631.75	112.41	0.00	112.41	
PERIOD		0.35405	ug/m^3	R_458	414671.80	3754656.75	112.68	0.00	112.68	
PERIOD		0.35913	ug/m^3	R_459	414671.80	3754681.75	112.96	0.00	112.96	
PERIOD		0.36309	ug/m^3	R_460	414671.80	3754706.75	113.19	0.00	113.19	

Sensitive Receptor Summary

Sonora High School
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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.36571	ug/m^3	R_461	414671.80	3754731.75	113.42	0.00	113.42	
PERIOD		0.36706	ug/m^3	R_462	414671.80	3754756.75	113.66	0.00	113.66	
PERIOD		0.36733	ug/m^3	R_463	414671.80	3754781.75	113.90	0.00	113.90	
PERIOD		0.36657	ug/m^3	R_464	414671.80	3754806.75	114.17	0.00	114.17	
PERIOD		0.36512	ug/m^3	R_465	414671.80	3754831.75	114.44	0.00	114.44	
PERIOD		0.31297	ug/m^3	R_466	414696.80	3754681.75	112.96	0.00	112.96	
PERIOD		0.31617	ug/m^3	R_467	414696.80	3754706.75	113.12	0.00	113.12	
PERIOD		0.31844	ug/m^3	R_468	414696.80	3754731.75	113.26	0.00	113.26	
PERIOD		0.31973	ug/m^3	R_469	414696.80	3754756.75	113.41	0.00	113.41	
PERIOD		2.79974	ug/m^3	S_001	414365.35	3754414.82	110.04	0.00	110.04	
PERIOD		4.11114	ug/m^3	S_002	414365.35	3754439.82	110.31	0.00	110.31	
PERIOD		5.22966	ug/m^3	S_003	414365.35	3754464.82	110.58	0.00	110.58	
PERIOD		6.06137	ug/m^3	S_004	414365.35	3754489.82	110.85	0.00	110.85	
PERIOD		6.69755	ug/m^3	S_005	414365.35	3754514.82	111.12	0.00	111.12	
PERIOD		7.20366	ug/m^3	S_006	414365.35	3754539.82	111.39	0.00	111.39	
PERIOD		7.65328	ug/m^3	S_007	414365.35	3754564.82	111.66	0.00	111.66	
PERIOD		7.98753	ug/m^3	S_008	414365.35	3754589.82	111.93	0.00	111.93	
PERIOD		8.25254	ug/m^3	S_009	414365.35	3754614.82	112.20	0.00	112.20	
PERIOD		8.62068	ug/m^3	S_010	414365.35	3754639.82	112.47	0.00	112.47	
PERIOD		1.73449	ug/m^3	S_011	414390.35	3754414.82	110.04	0.00	110.04	

Sensitive Receptor Summary

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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.27521	ug/m^3	S_012	414390.35	3754439.82	110.31	0.00	110.31	
PERIOD		2.80850	ug/m^3	S_013	414390.35	3754464.82	110.58	0.00	110.58	
PERIOD		3.27230	ug/m^3	S_014	414390.35	3754489.82	110.85	0.00	110.85	
PERIOD		3.68504	ug/m^3	S_015	414390.35	3754514.82	111.12	0.00	111.12	
PERIOD		4.03759	ug/m^3	S_016	414390.35	3754539.82	111.39	0.00	111.39	
PERIOD		4.34152	ug/m^3	S_017	414390.35	3754564.82	111.66	0.00	111.66	
PERIOD		4.61239	ug/m^3	S_018	414390.35	3754589.82	111.93	0.00	111.93	
PERIOD		4.88324	ug/m^3	S_019	414390.35	3754614.82	112.20	0.00	112.20	
PERIOD		5.21499	ug/m^3	S_020	414390.35	3754639.82	112.47	0.00	112.47	
PERIOD		5.81447	ug/m^3	S_021	414390.35	3754664.82	112.74	0.00	112.74	
PERIOD		7.07028	ug/m^3	S_022	414390.35	3754689.82	113.01	0.00	113.01	
PERIOD		8.32774	ug/m^3	S_023	414390.35	3754714.82	113.14	0.00	113.14	
PERIOD		8.65432	ug/m^3	S_024	414390.35	3754739.82	113.27	0.00	113.27	
PERIOD		1.23113	ug/m^3	S_025	414415.35	3754414.82	110.04	0.00	110.04	
PERIOD		1.50562	ug/m^3	S_026	414415.35	3754439.82	110.31	0.00	110.31	
PERIOD		1.80041	ug/m^3	S_027	414415.35	3754464.82	110.58	0.00	110.58	
PERIOD		2.09053	ug/m^3	S_028	414415.35	3754489.82	110.85	0.00	110.85	
PERIOD		2.35007	ug/m^3	S_029	414415.35	3754514.82	111.12	0.00	111.12	
PERIOD		2.57985	ug/m^3	S_030	414415.35	3754539.82	111.39	0.00	111.39	
PERIOD		2.79327	ug/m^3	S_031	414415.35	3754564.82	111.66	0.00	111.66	

Sensitive Receptor Summary

Sonora High School
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PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		3.00191	ug/m^3	S_032	414415.35	3754589.82	111.94	0.00	111.94	
PERIOD		3.22142	ug/m^3	S_033	414415.35	3754614.82	112.21	0.00	112.21	
PERIOD		3.45643	ug/m^3	S_034	414415.35	3754639.82	112.48	0.00	112.48	
PERIOD		3.75245	ug/m^3	S_035	414415.35	3754664.82	112.75	0.00	112.75	
PERIOD		4.12319	ug/m^3	S_036	414415.35	3754689.82	113.01	0.00	113.01	
PERIOD		4.46806	ug/m^3	S_037	414415.35	3754714.82	113.24	0.00	113.24	
PERIOD		4.64107	ug/m^3	S_038	414415.35	3754739.82	113.46	0.00	113.46	
PERIOD		0.93953	ug/m^3	S_039	414440.35	3754414.82	110.22	0.00	110.22	
PERIOD		1.11002	ug/m^3	S_040	414440.35	3754439.82	110.44	0.00	110.44	
PERIOD		1.29778	ug/m^3	S_041	414440.35	3754464.82	110.66	0.00	110.66	
PERIOD		1.49217	ug/m^3	S_042	414440.35	3754489.82	110.88	0.00	110.88	
PERIOD		1.67634	ug/m^3	S_043	414440.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.83897	ug/m^3	S_044	414440.35	3754539.82	111.40	0.00	111.40	
PERIOD		1.98036	ug/m^3	S_045	414440.35	3754564.82	111.67	0.00	111.67	
PERIOD		2.11500	ug/m^3	S_046	414440.35	3754589.82	111.94	0.00	111.94	
PERIOD		2.26177	ug/m^3	S_047	414440.35	3754614.82	112.21	0.00	112.21	
PERIOD		2.41783	ug/m^3	S_048	414440.35	3754639.82	112.48	0.00	112.48	
PERIOD		2.58029	ug/m^3	S_049	414440.35	3754664.82	112.75	0.00	112.75	
PERIOD		2.73858	ug/m^3	S_050	414440.35	3754689.82	113.02	0.00	113.02	
PERIOD		2.86031	ug/m^3	S_051	414440.35	3754714.82	113.29	0.00	113.29	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		2.91548	ug/m^3	S_052	414440.35	3754739.82	113.56	0.00	113.56	
PERIOD		0.75677	ug/m^3	S_053	414465.35	3754414.82	110.53	0.00	110.53	
PERIOD		0.87423	ug/m^3	S_054	414465.35	3754439.82	110.66	0.00	110.66	
PERIOD		1.00077	ug/m^3	S_055	414465.35	3754464.82	110.79	0.00	110.79	
PERIOD		1.13253	ug/m^3	S_056	414465.35	3754489.82	110.93	0.00	110.93	
PERIOD		1.26150	ug/m^3	S_057	414465.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.38017	ug/m^3	S_058	414465.35	3754539.82	111.40	0.00	111.40	
PERIOD		1.48677	ug/m^3	S_059	414465.35	3754564.82	111.67	0.00	111.67	
PERIOD		1.58672	ug/m^3	S_060	414465.35	3754589.82	111.94	0.00	111.94	
PERIOD		1.68715	ug/m^3	S_061	414465.35	3754614.82	112.21	0.00	112.21	
PERIOD		1.78479	ug/m^3	S_062	414465.35	3754639.82	112.48	0.00	112.48	
PERIOD		1.87938	ug/m^3	S_063	414465.35	3754664.82	112.75	0.00	112.75	
PERIOD		1.96173	ug/m^3	S_064	414465.35	3754689.82	113.02	0.00	113.02	
PERIOD		0.62647	ug/m^3	S_065	414490.35	3754414.82	110.84	0.00	110.84	
PERIOD		0.71130	ug/m^3	S_066	414490.35	3754439.82	110.88	0.00	110.88	
PERIOD		0.80092	ug/m^3	S_067	414490.35	3754464.82	110.93	0.00	110.93	
PERIOD		0.89345	ug/m^3	S_068	414490.35	3754489.82	110.97	0.00	110.97	
PERIOD		0.98515	ug/m^3	S_069	414490.35	3754514.82	111.13	0.00	111.13	
PERIOD		1.07197	ug/m^3	S_070	414490.35	3754539.82	111.40	0.00	111.40	
PERIOD		1.15255	ug/m^3	S_071	414490.35	3754564.82	111.67	0.00	111.67	

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Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		1.22862	ug/m^3	S_072	414490.35	3754589.82	111.94	0.00	111.94	
PERIOD		0.52943	ug/m^3	S_073	414515.35	3754414.82	111.01	0.00	111.01	
PERIOD		0.59270	ug/m^3	S_074	414515.35	3754439.82	111.05	0.00	111.05	
PERIOD		0.65844	ug/m^3	S_075	414515.35	3754464.82	111.09	0.00	111.09	
PERIOD		0.72557	ug/m^3	S_076	414515.35	3754489.82	111.12	0.00	111.12	
PERIOD		0.79194	ug/m^3	S_077	414515.35	3754514.82	111.26	0.00	111.26	
PERIOD		0.85580	ug/m^3	S_078	414515.35	3754539.82	111.49	0.00	111.49	
PERIOD		0.91631	ug/m^3	S_079	414515.35	3754564.82	111.72	0.00	111.72	
PERIOD		4.88515	ug/m^3	S_080	414227.51	3754399.07	108.85	0.00	108.85	
PERIOD		3.75372	ug/m^3	S_081	414257.09	3754397.03	108.83	0.00	108.83	
PERIOD		3.50503	ug/m^3	S_082	414290.13	3754397.82	109.08	0.00	109.08	
PERIOD		2.69348	ug/m^3	S_083	414332.14	3754395.77	109.60	0.00	109.60	
PERIOD		2.26831	ug/m^3	S_084	414357.63	3754398.44	109.87	0.00	109.87	
PERIOD		1.71694	ug/m^3	S_085	414375.88	3754398.29	109.91	0.00	109.91	
PERIOD		1.52668	ug/m^3	S_086	414384.37	3754397.97	109.92	0.00	109.92	
PERIOD		0.20444	ug/m^3	W_001	414013.18	3754959.39	113.38	0.00	113.38	
PERIOD		0.32461	ug/m^3	W_002	414091.17	3754953.02	113.00	0.00	113.00	
PERIOD		0.44176	ug/m^3	W_003	413902.11	3754372.51	111.80	0.00	111.80	
PERIOD		0.36668	ug/m^3	W_004	413901.75	3754342.38	111.80	0.00	111.80	
PERIOD		0.40863	ug/m^3	W_005	414017.65	3754321.83	110.30	0.00	110.30	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.30044	ug/m^3	W_006	414048.48	3754289.22	109.89	0.00	109.89	
PERIOD		0.22277	ug/m^3	W_007	414066.20	3754252.71	109.66	0.00	109.66	
PERIOD		0.20584	ug/m^3	W_008	413989.29	3754254.49	110.17	0.00	110.17	
PERIOD		0.16427	ug/m^3	W_009	413991.78	3754223.65	109.97	0.00	109.97	
PERIOD		0.34006	ug/m^3	W_010	414170.88	3754279.42	108.30	0.00	108.30	
PERIOD		0.25869	ug/m^3	W_011	414171.23	3754246.81	108.29	0.00	108.29	
PERIOD		0.30066	ug/m^3	W_012	414219.43	3754257.80	108.00	0.00	108.00	
PERIOD		0.25045	ug/m^3	W_013	414219.79	3754234.76	108.00	0.00	108.00	
PERIOD		0.27016	ug/m^3	W_014	414269.41	3754238.66	108.00	0.00	108.00	
PERIOD		0.26413	ug/m^3	W_015	414294.22	3754234.40	108.02	0.00	108.02	
PERIOD		0.23442	ug/m^3	W_016	414321.16	3754218.46	107.91	0.00	107.91	
PERIOD		1.22727	ug/m^3	W_017	414201.53	3754352.55	108.35	0.00	108.35	
PERIOD		1.43383	ug/m^3	W_018	414226.54	3754358.81	108.42	0.00	108.42	
PERIOD		1.33517	ug/m^3	W_019	414254.90	3754359.64	108.43	0.00	108.43	
PERIOD		1.21114	ug/m^3	W_020	414290.34	3754358.81	108.66	0.00	108.66	
PERIOD		1.08780	ug/m^3	W_021	414337.05	3754358.81	109.27	0.00	109.27	
PERIOD		0.52177	ug/m^3	W_022	414299.93	3754303.77	108.31	0.00	108.31	
PERIOD		0.50844	ug/m^3	W_023	414337.46	3754305.02	108.72	0.00	108.72	
PERIOD		0.45413	ug/m^3	W_024	414389.17	3754303.77	109.37	0.00	109.37	
PERIOD		0.38951	ug/m^3	W_025	414432.95	3754301.27	109.81	0.00	109.81	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.81428	ug/m^3	W_026	414395.01	3754357.98	109.77	0.00	109.77	
PERIOD		0.62538	ug/m^3	W_027	414434.20	3754357.14	110.04	0.00	110.04	
PERIOD		0.46967	ug/m^3	W_028	414485.49	3754359.23	110.35	0.00	110.35	
PERIOD		0.38837	ug/m^3	W_029	414522.61	3754360.06	110.46	0.00	110.46	
PERIOD		0.31850	ug/m^3	W_030	414491.75	3754301.68	109.82	0.00	109.82	
PERIOD		0.28089	ug/m^3	W_031	414525.52	3754300.43	109.81	0.00	109.81	
PERIOD		0.35575	ug/m^3	W_032	414393.76	3754278.75	109.16	0.00	109.16	
PERIOD		0.32452	ug/m^3	W_033	414433.37	3754278.33	109.57	0.00	109.57	
PERIOD		0.39179	ug/m^3	W_034	414343.72	3754280.83	108.55	0.00	108.55	
PERIOD		0.27766	ug/m^3	W_035	414489.25	3754277.91	109.57	0.00	109.57	
PERIOD		0.24968	ug/m^3	W_036	414526.78	3754278.75	109.58	0.00	109.58	
PERIOD		0.22193	ug/m^3	W_037	414489.66	3754239.97	109.16	0.00	109.16	
PERIOD		0.19040	ug/m^3	W_038	414515.10	3754220.79	108.95	0.00	108.95	
PERIOD		0.17609	ug/m^3	W_039	414531.78	3754211.20	108.85	0.00	108.85	
PERIOD		0.18517	ug/m^3	W_040	414499.25	3754209.94	108.83	0.00	108.83	
PERIOD		0.20655	ug/m^3	W_041	414587.56	3754276.59	109.50	0.00	109.50	
PERIOD		0.22072	ug/m^3	W_042	414599.34	3754302.20	109.63	0.00	109.63	
PERIOD		0.29251	ug/m^3	W_043	414589.87	3754365.96	110.40	0.00	110.40	
PERIOD		0.32691	ug/m^3	W_044	414592.69	3754400.03	110.74	0.00	110.74	
PERIOD		0.27429	ug/m^3	W_045	414624.44	3754390.04	110.22	0.00	110.22	

Sensitive Receptor Summary

Sonora High School
Construction Health Risk Assessment

PM2.5 - Concentration - Source Group: ONSITE

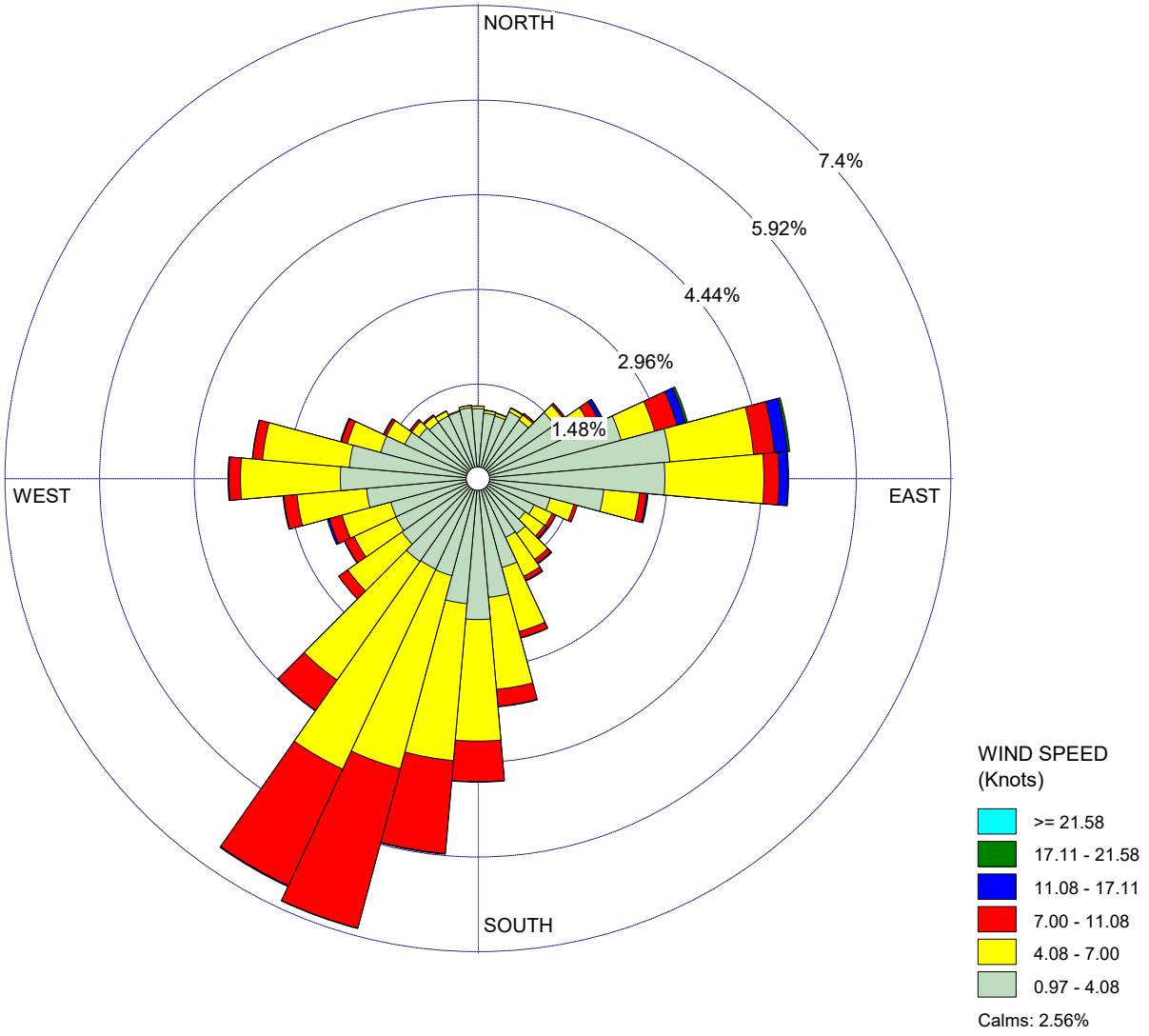
Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.12338	ug/m^3	W_046	414060.03	3754145.75	108.82	0.00	108.82	
PERIOD		0.11959	ug/m^3	W_047	414223.51	3754098.38	107.20	0.00	107.20	

WIND ROSE PLOT:

KONT Wind Rose
2019-2023

DISPLAY:

Wind Speed
Direction (blowing from)

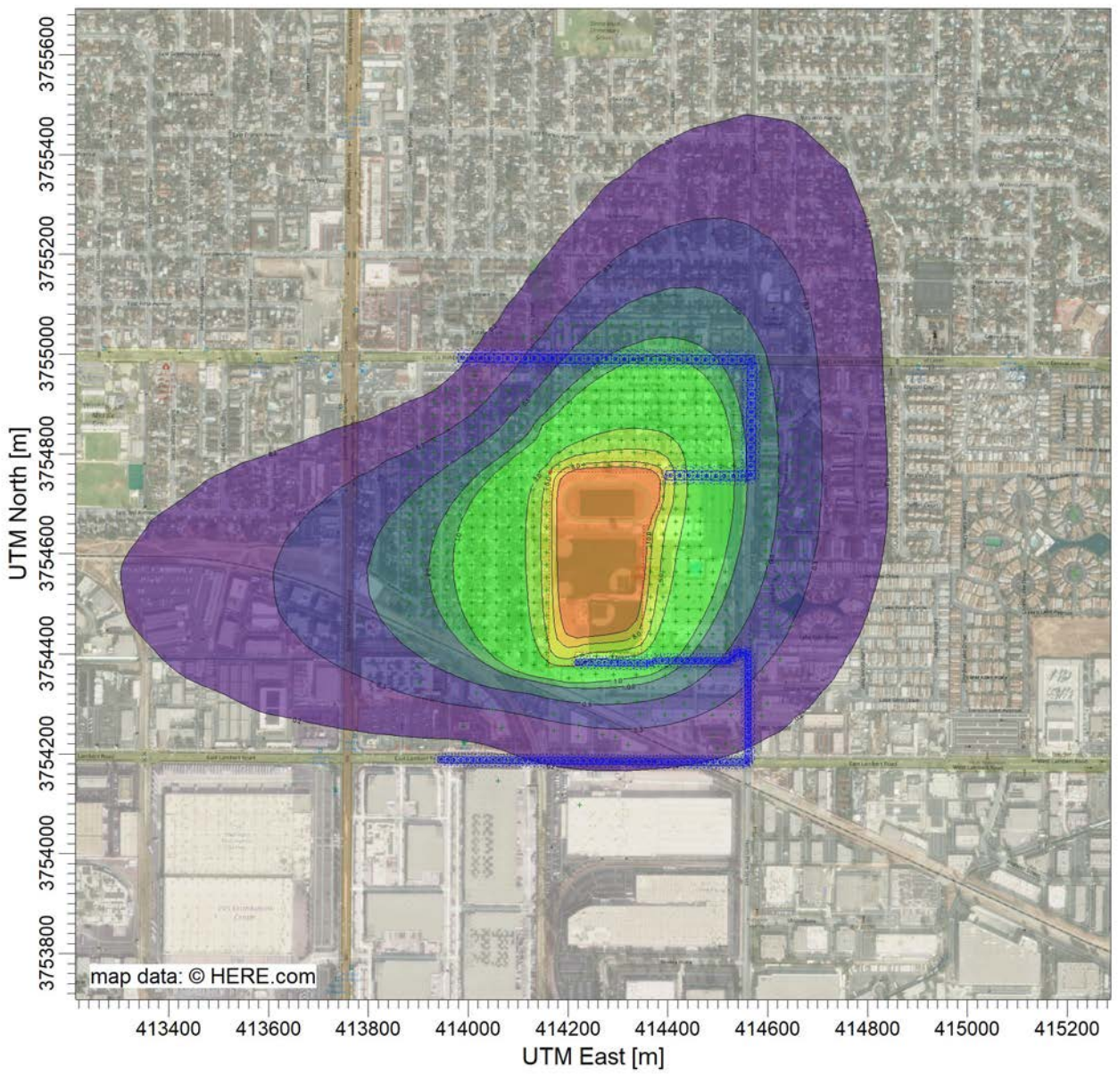


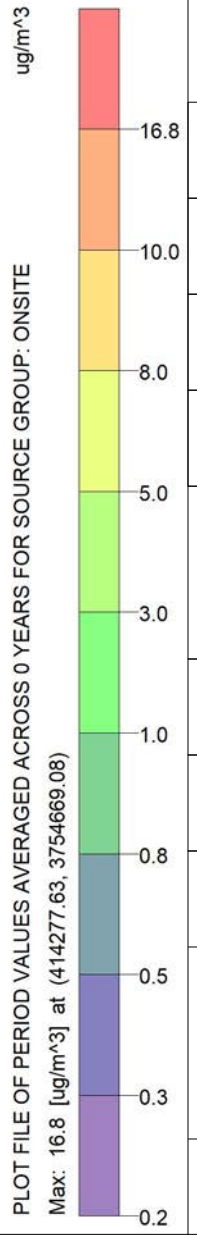
COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2018 - 00:00 **End Date: 12/31/2023 - 23:59**	MODELER:	
	CALM WINDS: **2.56%**	TOTAL COUNT: **43302 hrs.**	
	AVG. WIND SPEED: **4.11 Knots**	DATE: **2/10/2026**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

PROJECT TITLE:

Sonora High School
Construction Health Risk Assessment





COMMENTS:

SOURCES:
3

RECEPTORS:
2868

OUTPUT TYPE:
Concentration

MAX:
16.8 ug/m^3

COMPANY NAME:

MODELER:

DATE:
2/10/2026

SCALE: 1:13,517
0 0.4 km

PROJECT NO.:

APPENDIX B CULTURAL RESOURCE EVAULATION REPORT

APPENDIX

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HISTORIC-PERIOD BUILDING EVALUATION

SONORA HIGH SCHOOL

401 S. Palm Street, City of La Habra
Orange County, California

Prepared for:

HANA Resources, Inc.
20361 Hermana Circle
Lake Forest, CA 92630

For Submittal to:

Fullerton Joint Union High School District
1051 W. Bastanchury Road
Fullerton, CA 92833

Prepared by:

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Daniel Ballester, Principal Investigator

February 14, 2026
CRM TECH Contract No. 4335

Title: Historic-Period Building Evaluation: Sonora High School, 401 S. Palm Street, City of La Habra, Orange County, California

Authors: Bai "Tom" Tang, Principal Investigator/Historian/Architectural Historian
Nicole Raslich, Archaeologist/Report Writer
Hunter O'Donnell, Archaeologist/Historian
Melissa Portilla, Archaeologist

Consulting Firm: CRM TECH
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Date: February 14, 2026

Prepared for: Don Cully, General Manager
HANA Resources
20361 Hermana Circle
Lake Forest, CA 92630
(949) 648-4416

For Submittal to: Fullerton Joint Union High School District
1051 W. Bastanchury Road
Fullerton, CA 92833
(714) 870-2800

USGS Quadrangle: La Habra, 7.5' quadrangle; Rancho San Juan Cajón de Santa Ana land grant; T3S R10W, San Bernardino Baseline and Meridian

Keywords: Northern Orange County; Site 4335-01H (temporary designation): Sonora High School campus, circa 1964; William Blurock and Associates, architect; not a "historical resource" under CEQA provisions

EXECUTIVE SUMMARY

Between October 2025 and February 2026, CRM TECH performed a cultural resources evaluation on the Sonora High School campus at 401 S. Palm Street in the City of La Habra, Orange County, California. The parcels occupied by the campus, Assessor's Parcel Nos. 296-021-01 and 296-402-13, comprise a portion of the Rancho San Juan Cajón de Santa Ana land grant lying within what would be Section 9 of Township 3 South, Range 10 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey La Habra, California, 7.5' quadrangle.

The study is a part of the environmental review process for the proposed Math and Science Classroom Building Modernization and Field Improvements Project on the Sonora High School campus. The project entails exterior and interior renovations of a portion of Building No. 400 and various upgrading and additions to existing facilities at the sport track and field, including the construction of new bleachers and a single-story, 3,015-square-foot restroom building. The study is required by the lead agency for the project, namely the Fullerton Joint Union High School District (FJUHSD), pursuant to the California Environmental Quality Act (CEQA).

The purpose of the study is to provide the FJUHSD with the necessary information and analysis to determine whether Sonora High School meets CEQA definition of a "historical resource" and, thereby, whether the project would cause "a substantial adverse change in the significance of a historical resource" (PRC §21084.1). As the proposed renovations would inevitably have the potential to alter the current appearance and characteristics of Building No. 400, which is a part of the original campus built in 1966, a historic significance evaluation of the campus as a whole was included in the scope of this study.

In order to document the history, characteristics, and current conditions of the campus and assess its historical significance and integrity, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, sought consultation with local community representatives, and carried out a systematic field inspection. As a result of these research procedures, the Sonora High School campus was recorded into the California Historical Resources Inventory since it meets the 50-year age threshold and retains sufficient historical character to relate to the date of construction. However, it does not appear to eligible for listing in the California Register of Historical Resources and therefore does not qualify as a "historical resource" for CEQA-compliance purposes.

Pursuant to PRC §21084.1, CRM TECH recommends to the FJUHSD a conclusion that the potential impact of the proposed project on the Sonora High School campus would not constitute "a substantial adverse change in the significance of a historical resource." No further cultural resources investigation is recommended for the campus.

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INTRODUCTION

Between October 2025 and February 2026, CRM TECH performed a cultural resources evaluation on the Sonora High School campus at 401 S. Palm Street in the City of La Habra, Orange County, California (Fig. 1). The parcels occupied by the campus, Assessor's Parcel Nos. 296-021-01 and 296-402-13, comprise a portion of the Rancho San Juan Cajón de Santa Ana land grant lying within what would be Section 9 of Township 3 South, Range 10 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey La Habra, California, 7.5' quadrangle (Figs. 2, 3).

The study is a part of the environmental review process for the proposed Math and Science Classroom Building Modernization and Field Improvements Project on the Sonora High School campus. The project entails exterior and interior renovations of a portion of Building No. 400 and various upgrading and additions to existing facilities at the sport track and field, including the construction of new bleachers and a single-story, 3,015-square-foot restroom building. The study is required by the lead agency for the project, namely the Fullerton Joint Union High School District (FJUHSD), pursuant to the California Environmental Quality Act (CEQA; PRC §21000 et seq.).

The purpose of the study is to provide the FJUHSD with the necessary information and analysis to determine whether Sonora High School meets CEQA definition of a "historical resource" and, thereby, whether the project would cause "a substantial adverse change in the significance of a historical resource" (PRC §21084.1). As the proposed renovations would inevitably have the potential to alter the current appearance and characteristics of Building No. 400, which is a part of

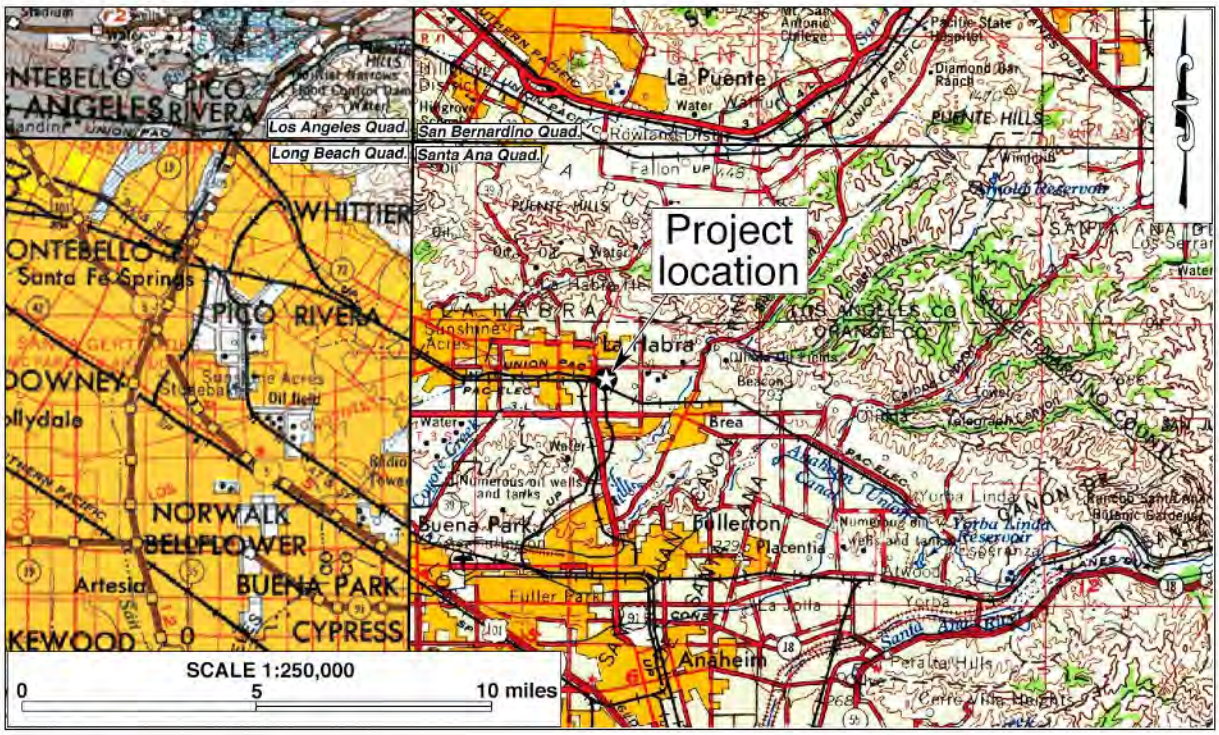


Figure 1. Project vicinity, based on USGS Long Beach, Los Angeles, San Bernardino, and Santa Ana, Calif., 120'x60' quadrangles (USGS 1969-1979).

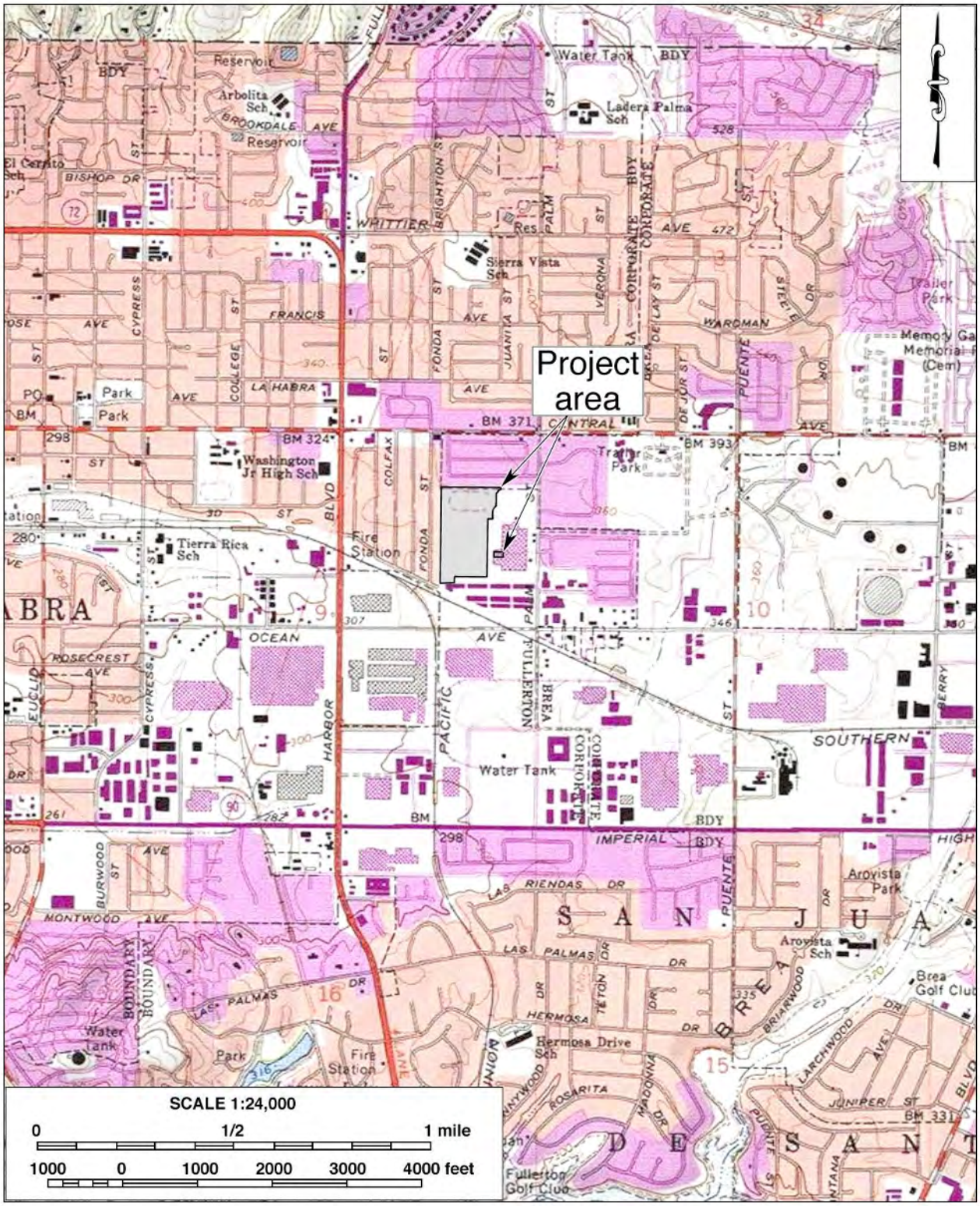


Figure 2. Project location, based on USGS La Habra, Calif., 7.5' quadrangles (USGS 1981).



Figure 3. Recent satellite image of the project area, based on Google Earth imagery.

the original campus built in 1966, a historic significance evaluation of the campus as a whole was included in the scope of this study.

In order to document the history, characteristics, and current conditions of the campus and assess its historical significance and integrity, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, sought consultation with local community representatives, and carried out a systematic field inspection. The following report is a complete account of the methods, results, and conclusion of the study. Personnel who participated in these research procedures are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

HISTORIC CONTEXT

The Los Angeles Basin, including the La Habra area, was a part of the ancient homeland of the Tongva/Kizh (Gabrielino) people. In 1769, with the establishment of Mission San Diego de Alcalá, Spain laid claim on Alta California and began to implement a plan to rule over the new territory through a string of Franciscan missions along the coast. Later that year, a small force of Spanish soldiers under the commend of Gaspar de Portolá, the newly appointed governor of the Californias, became the first Europeans to travel through the La Habra area (Beck and Haase 1974:15). Soon afterwards, the area came under the control of nearby Mission San Gabriel Arcángel after it was founded in 1771.

After gaining independence from Spain in 1821, the Mexican authorities began in 1834 the process of secularization to dismantle the mission system in Alta California. During the next 12 years, former mission landholdings throughout Alta California were surrendered to the Mexican government and subsequently divided and granted to various prominent citizens of the province. In 1839, most of what is now the City of La Habra became a part of the Rancho Cañada de la Habra land grant, or simply Rancho La Habra, which was given to Mariano Reyes Roldán, a municipal council member at the pueblo of Los Angeles. The name of the rancho referred to the "Pass through the Hills," a natural pass to the north of the area that was discovered by the Portolá expedition in 1769 (City of La Habra n.d.). The project location, however, lies within the boundaries of the adjacent Rancho San Juan Cajón de Santa Ana, which was granted in 1837 to Juan Pacifico Ontiveros, *mayordomo* (foreman) of Mission San Juan Capistrano.

Only sparsely populated throughout the Spanish and Mexican rule, California saw an increasing influx of settlers from the eastern United States after American annexation in 1848. In 1869, Abel Stearns, a prominent Yankee-turned *ranchero,* purchased Rancho La Habra to raise and graze cattle (City of La Habra n.d.; La Tour 2025). After a series of floods, freezes and droughts, Sterns was forced to sell or lease vast parcels of his holdings (County of Orange n.d.). By the early 1870s, Basque immigrants leased much of the land for sheep herding (County of Orange n.d.). American, English, and Swiss settlers arriving by wagons and trains throughout the second half of the 19th century to establish grain farms and fruit orchards (City of La Habra n.d.).

The town of La Habra was founded in 1896 when Willits J. Hole, a successfully businessman and real estate developer, purchased 3,500 acres of Rancho La Habra land and laid out a townsite (City of La Habra n.d.). The name La Habra was adopted when a post office was opened inside a corner

store, and a school was built the same year through Hole's efforts (City of La Habra n.d.). Irrigation water was brought to the area by the East Whittier Land and Water Company, and the cultivation of walnut, avocado, and citrus fruits flourished (County of Orange n.d.). By 1928, La Habra had distinguished itself as the leading avocado producer in southern California (City of La Habra n.d.). Meanwhile, an oil boom swept through the area around the turn of the 20th century, with the nearby Olinda-Fullerton oil field considered one of the most productive in the state (RareMaps n.d.).

In 1913, La Habra became a "tent city" due to the large number of migrant workers in the citrus and oil industries, and a housing boom ensued (City of La Habra n.d.). The development of residential tracts, commercial establishments, and civic amenities lead to the incorporation of the City of La Habra in 1925. Since then, suburban expansion has been the primary driving force behind the growth of the city, especially in the post-WWII era. Total population of the city increased steadily over the past 100 years, from 3,000 at incorporation to 5,000 in 1950, 25,000 in 1960, 50,000 in 1990, and 63,000 in 2020 (USCB n.d.).

The FJUHSD was formed, along with Fullerton Union High School, in the spring of 1893 through a special election to serve northern Orange County, specifically the elementary school districts of Buena Park, Fullerton, Orangethorpe, and Placentia (La Tour 2022). The new high school opened for classes in the fall of 1893 with eight students in attendance. In 1913, the high school board of trustees approved the formation of a junior college as an extension of the high school, beginning with a class of 26 (La Tour 2023). In the post-WWII era, the FJUHSD expanded greatly with the establishment of five additional high schools in La Habra, Buena Park, and Fullerton between 1954 and 1972, including Sonora High School in 1966 (FJUHSD n.d.). Currently there are six comprehensive high schools, an alternative school, and a continuation school in the district, which serves over 12,300 students as of the 2025-2026 school year (FJUHSD n.d.).

RESEARCH METHODS

RECORDS SEARCH

The historical/archaeological resources records search for this study was completed on November 3, 2025, by CRM TECH archaeologist Eulices Lopez at the South Central Coastal Information Center at California State University, Fullerton. The purpose of the records search is to identify previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks or Points of Historical Interest as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH archaeologist/historian Hunter O'Donnell and archaeologist/report writer Nicole Raslich on the basis of published literature in local and regional history, U.S. Geological Survey (USGS) topographic maps dated 1896-1981, and aerial/satellite photographs taken between 1952 and 2025, which are accessible through the

Google Earth software and at the Nationwide Environmental Title Research (NETR) Online website. For information specific to Sonora High School and the FJUHSD, O'Donnel supplemented these sources with historical and contemporary news accounts and online genealogical and architectural databases.

CONSULTATION WITH LOCAL COMMUNITY

As a part of the research procedures, CRM TECH contacted the La Habra Historical Museum in writing for information about any potential properties of local historic significance in the vicinity of the project area or other cultural resources concerns regarding the proposed project. The contact was initiated via e-mail on January 13, 2026. As of this time, no response has been received from the La Habra Historical Museum.

FIELD INSPECTION

The field inspection of the Sonora High School campus was conducted on January 9, 2026, by Hunter O'Donnell and CRM TECH archaeologist Melissa Portilla. As a part of the field procedures, O'Donnell and Portilla made detailed notations and preliminary photo-recordation of the structural and architectural characteristics, notable features, and current conditions of the historical components of the campus. The field data were then compiled into standard record forms (see App. 2) and, along with the results of other research procedures, form the basis of the architectural evaluation and historic integrity assessment presented in the sections below. Meanwhile, the ground surface on open land within the project boundaries was closely inspected for any indications of archaeological deposits from the prehistoric or historic period (i.e., more than 50 years of age). Except the site of Building No. 400, ground visibility was excellent (90-100%) in the project area.

RESULTS AND FINDINGS

RECORDS SEARCH

According to SCCIC records, Sonora High School had not been the subject of any cultural resources study prior to this one, and no cultural resources had been recorded on or adjacent to the campus. Within the one-mile scope of the records search, 23 cultural resources studies completed between 1974 and 2012 have been reported to the SCCIC, covering roughly 20% of the total area (Fig. 4). During one of these studies, a suspected prehistoric (i.e., Native American) archaeological site was recorded within the one-mile radius in 1979 and subsequently designated 30-000796 (CA-ORA-796) in the California Historical Resources Inventory. However, a re-visit to the site in 1980 resulted in the conclusion that the lithic pieces and marine shells at the site were not Native American artifacts. No other potential cultural resources were previously identified within the scope of the records search.

HISTORICAL RESEARCH

Historical sources consulted for this study indicate no human-made features within or adjacent to the project area prior to the 20th century (Figs. 5, 6). In the early 1930s, a dirt road running north-south along the western project boundary was the only human-made feature to be noted in the immediate

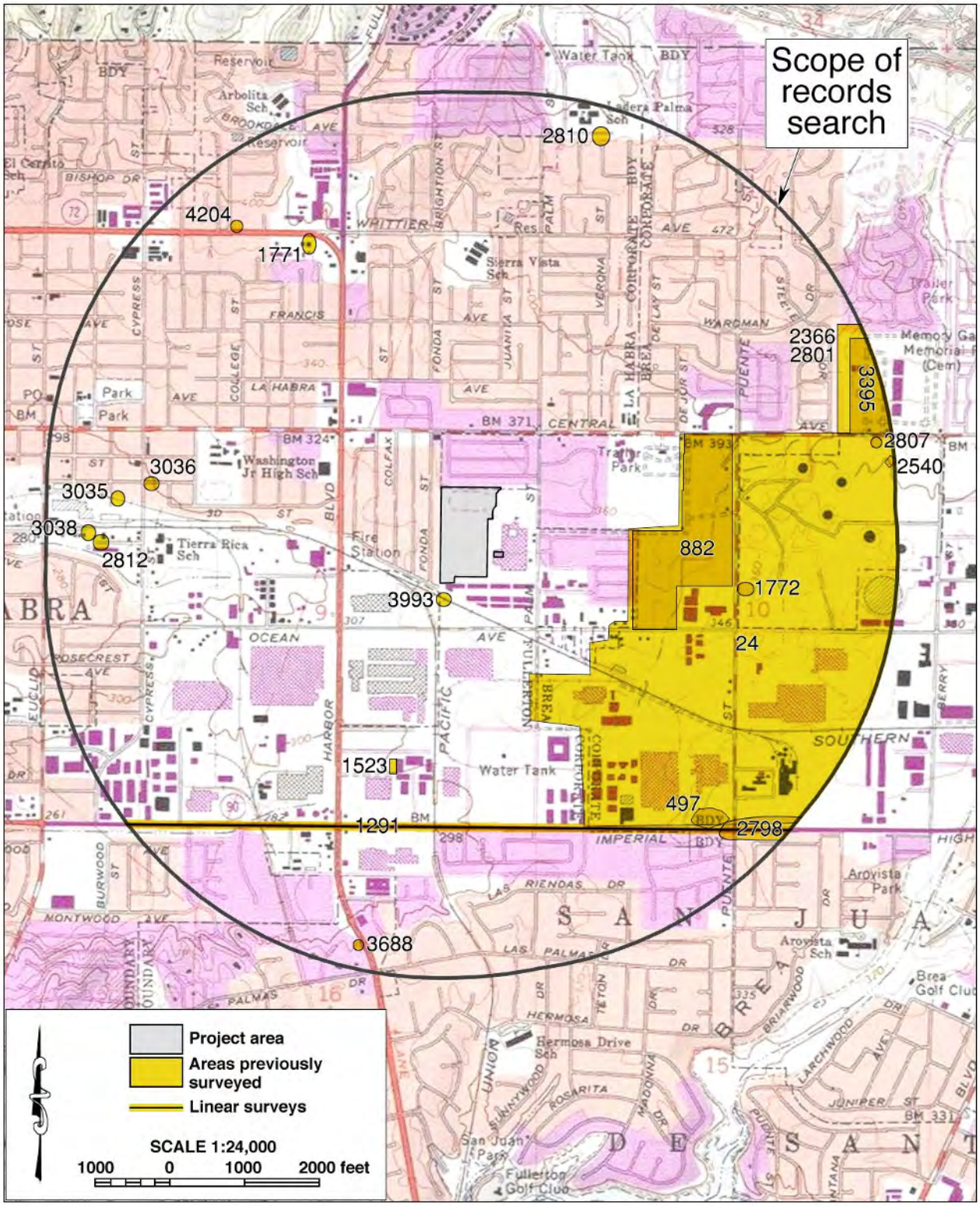


Figure 4. Previous cultural resources studies in the vicinity of the project area, listed by SCCIC file number. Locations of known historical/archaeological resources are not shown as a protective measure.

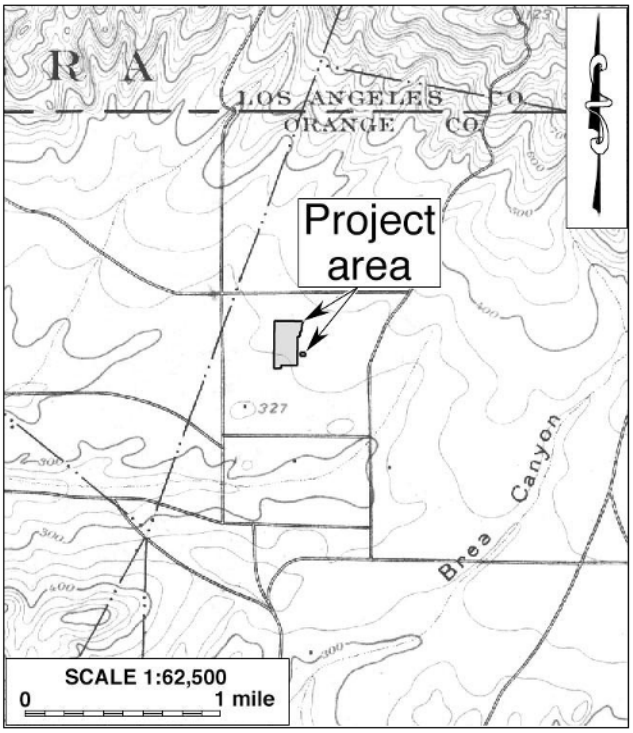


Figure 5. The project area and vicinity in 1894. (Source: USGS 1896)

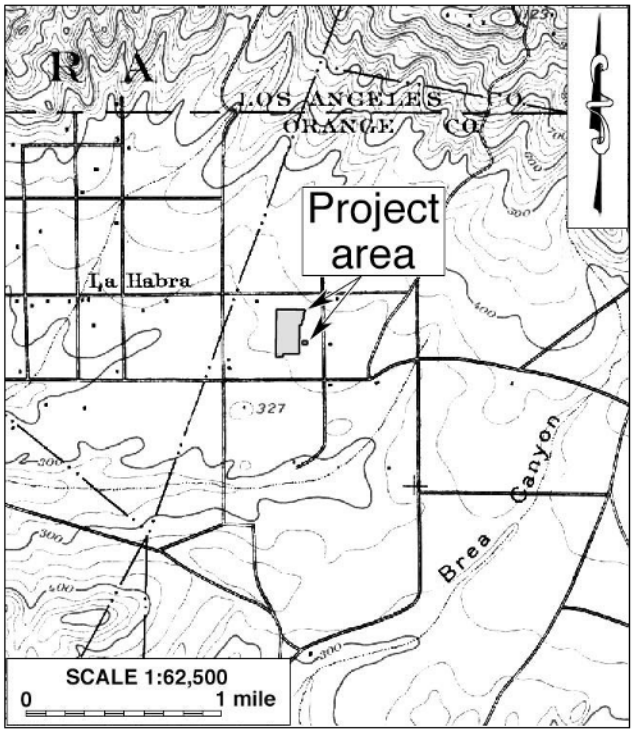


Figure 6. The project area and vicinity in 1900. (Source: USGS 1901)

vicinity (Fig. 7). Between the late 1930s and the mid-1960s, the project area was part of an expansive orchard (Figs. 8-10; NETR Online 1853; 1963). By the 1950s, however, suburban development had reached the adjacent properties to the west, along Fonda Street, and the site for Sonora High School was cleared for construction in 1965 (NETR Online 1953-1965).

Plans for what was originally called "High School 7" by architect William E. Blurock in his design drawings for the project were approved in early 1965 (*Register* 1965a). After delays caused by various litigations and supply issues, the construction work was finally underway in early 1966, with Argo Construction Company identified as the primary contractor (*Anaheim Bulletin* 1965; 1966a; *Register* 1965b; 1965c; 1966a; 1966b). The school officially opened in October 1966, with some of the buildings still under construction (*Anaheim Bulletin* 1966b; 1966c). The name "Sonora High School," the school colors of navy blue and gold, and the official nickname "Raiders" were selected through a student election in March of 1966 (*Register* 1966b). Once construction was completed, the FJUHSD retained the service of architect Fred Lang of South Laguna to landscape the campus (*Register* 1967).

The designer of the campus, William Blurock (1922-2012), FAIA, is well recognized today for his achievements in the field. The firm that he founded in 1952, William E. Blurock and Associates of Newport Beach, was responsible for the design of hundreds of schools and colleges in California as well as educational campuses in Australia, Brazil, Hong Kong, Italy, Korea, and Saudi Arabia, corporate campuses for Allegran, Home Savings and Hunt Wesson Foods, and restaurants for Far West Services, including Coco's, Reuben's, and the Reuben E. Lee (Bissell 2012; tBP/Architecture n.d.). The firm's present-day successor, tBP/Architecture, earned an Honor Award in 2012 for

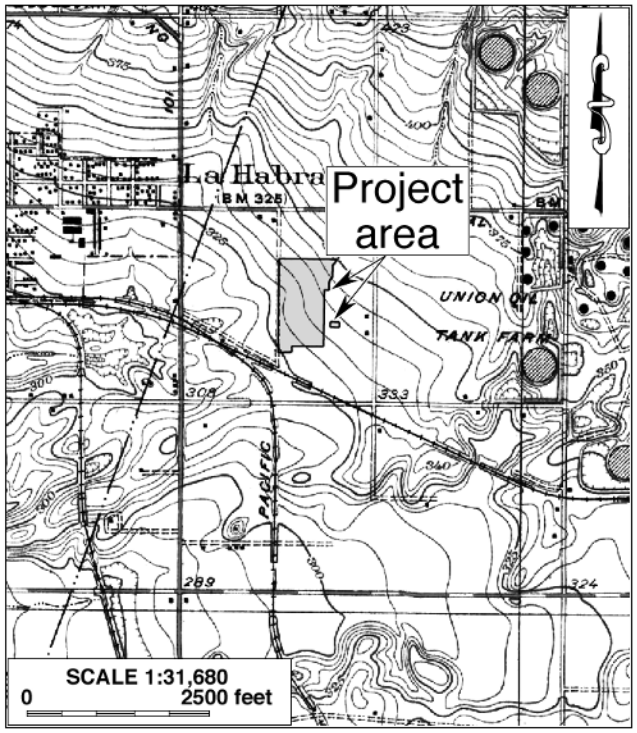


Figure 7. The project area and vicinity in 1932. (Source: USGS 1935)

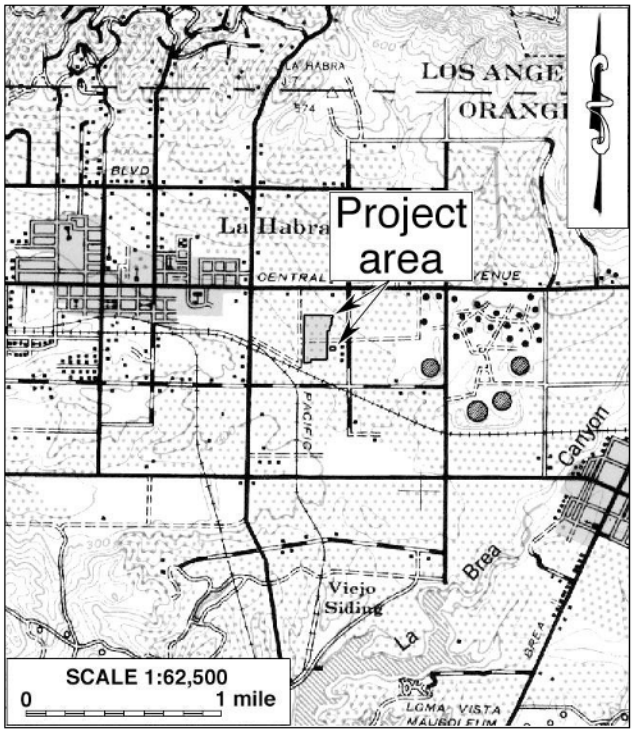


Figure 8. The project area and vicinity in 1939. (Source: USGS 1942)

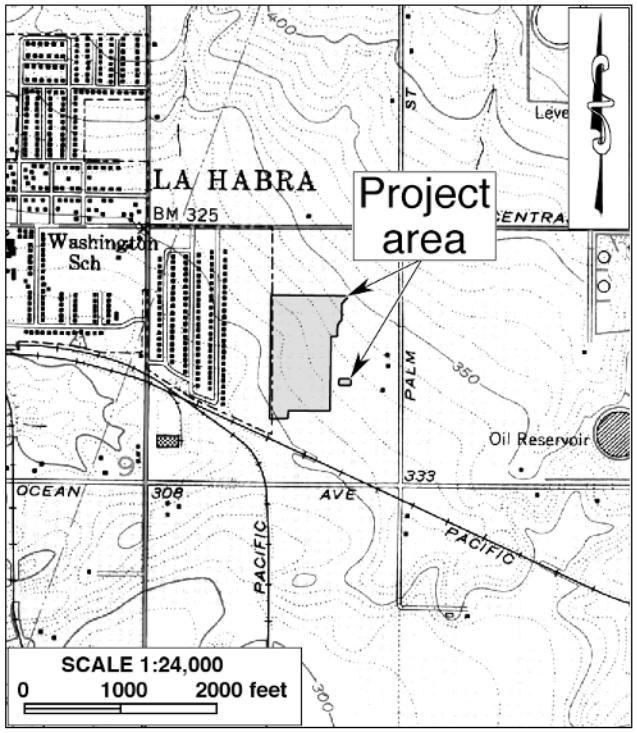


Figure 9. The project area and vicinity in 1947-1950. (Source: USGS 1950)

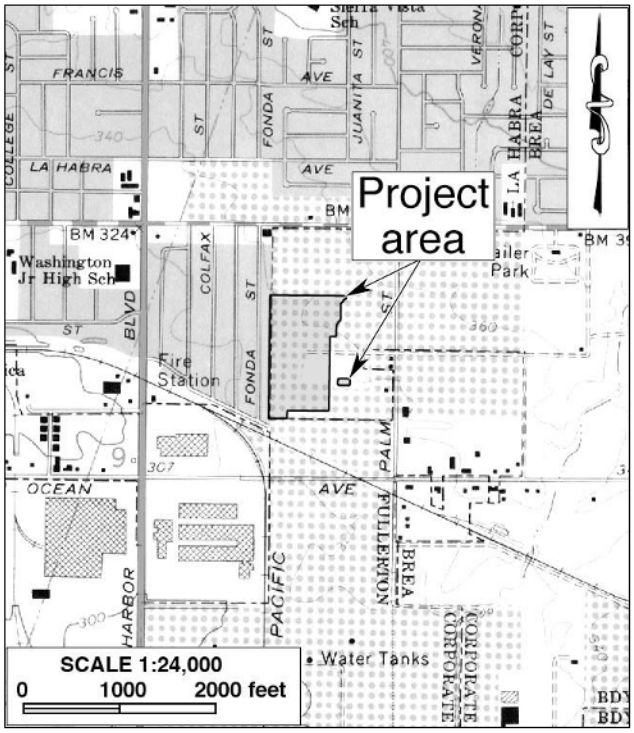


Figure 10. The project area and vicinity in 1963-1964. (Source: USGS 1964)

"historically significant design and achievement during the past 30 years" (*Register* 2012; tBP/Architecture n.d.).

A 1972 aerial photograph offers an overview of the campus in its early years (NETR Online 1972). Since then, the configuration of the campus has remained largely unchanged, although some localized alterations and/or additions did occur, mostly notably the construction of the science and social building (No. 900) between the main building and the athletic fields in 2003-2004 and the "large gym" (No. 1000) to the north of the main building in 2018-2019 (NETR Online 1972-2022; Google Earth 1995-2025). Within the project boundaries, the configuration of some of the sports fields was altered over the years, but the overall land use and character of the area is unchanged (NETR Online 1972-2022; Google Earth 1995-2025).

FIELD INSPECTION

During the field survey, the historical components of the Sonora High School campus were found to retain sufficient historical characteristics to relate to their period of construction, as was the campus as a whole. Since the school meets the 50-year age threshold for potential "historical resources," and since a portion of the 1966 main building, namely Building No. 400, will be involved in the proposed project, the entire campus was recorded into the California Historical Resources Inventory and designated temporarily as Site 4335-01H, pending assignment of a permanent identification number by the SCCIC. As mentioned above, the portion of the campus within the boundaries of the proposed project was also surveyed systematically for archaeological features or artifact deposits, but none was found.

The Sonora High School campus occupies a generally square-shaped site measuring approximately 37.3 acres, with most of the buildings concentrated in the eastern half and athletic fields in the western half. The 1966 main building, in the southeastern portion of the campus, encompasses most of the interior spaces of the school. This large, irregularly shaped building has a flat roof and exterior walls with a mixture of concrete bricks and stucco cladding. The rest of the interior spaces at the school are divided among a few small outbuildings, including some in the agricultural section and others used for maintenance, and the two modern buildings, namely Building Nos. 900 and 1000. The major buildings on campus share the basic characteristics of the typical Mid-century Modernist architecture as applied to public buildings, featuring simple geometric shapes and large expanses of unadorned surface. A more detailed description and photographs of the building and other features of the campus are presented in the standard record forms attached to this report as Appendix 2.

DISCUSSION

STATUTORY AND REGULATORY FRAMEWORK

As stated above, the primary objective of this study is to assist the FJUHSD in determining whether the Sonora High School campus at 401 S. Palm Street meets the official definition of a "historical resource," as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in

the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any properties listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). In other words, buildings, structures, sites, or districts that belong to one or more of the following three categories are to be considered "historical resources" for the purposes of CEQA compliance (160 Cal. App. 4th 1051):

- Mandatory historical resources: properties that are listed in or formally determined to be eligible for listing in the California Register of Historical Resources;
- Presumptive historical resources: properties that are designated in an officially established local register, recognized by local ordinance, resolution, or general plan, or identified in a local survey prepared in accordance with PRC §5024.1(g), unless determined not to be historically or culturally significant by the lead agency upon a preponderance of the evidence;
- Discretionary historical resources: properties that are determined to be historically significant in the lead agency's discretion, independent of any decision to list or designate them in a national, state, or local register of historical resources.

Regarding the proper criteria of historic significance evaluation of potential "discretionary historical resources," CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

Since Sonora High School has not been listed in the California Register of Historical Resources, formally determined eligible for such listing, or designated in an officially established local register, it does not meet the definition of a "historical resource" in the "mandatory" or "presumptive" category. Therefore, it is evaluated below as a potential "discretionary historical resource."

SIGNIFICANCE EVALUATION

Opened in 1966 as the seventh high school in the FJUHSD, Sonora High School was established at a time when the post-WWII boom matured and school expansion became critical to accommodate the rapidly growing school-aged population. As such, its origin and early history are directly associated with the phenomenal urban/suburban expansion that swept across the nation during the post-war era, an event—or pattern of events—that left a lasting impact on the history of the U.S. and particularly

on southern California. However, as one of the numerous public education institutions in the region of similar vintage, Sonora High School does not demonstrate a unique or particularly close association with that event or historic theme. No specific events of recognized historic significance have been identified in association with the school.

Similarly, no historic figures of recognized significance have been identified in close association with Sonora High School. While a number of Sonora alumni later went on to become distinguished in their careers and reach a level of significance in their respective fields, such as famed film director James Cameron, their accomplishments postdate their association with the school. Furthermore, there is no evidence that their accomplishments have attained the level of historic significance required by the California Register, especially given the relatively recent time frame of their professional lives.

The campus architecture demonstrates the basic characteristics of Mid-century Modernism, a style that was ubiquitous in California—and indeed throughout the U.S. and the world—during the post-war decades, but it does not stand out as an important example of the Modernist movement in architecture or of any property type, period, region, or method of construction. Nor does it exhibit a particularly high level of artistic value or any other distinctive merits to distinguish it from the numerous similar school campuses of similar age throughout southern California and the U.S.

As stated above, the designer of the 1966 main building, architect William E. Blurock, is well recognized for his achievements in architecture, including hundreds of schools and colleges in the State of California and elsewhere, along other buildings. While Blurock undoubtedly qualifies as a master architect, Sonora High School, with its relatively common design for post-war educational institutions and other office buildings, has not been recognized as an important, exemplary, or especially notable example of his work.

Lastly, as a common late-historic-period facility, Sonora High School is unlikely to yield information important to the study of the pertinent aspects of national, state, or local history, such as the accelerated growth of public education in the age of suburban expansion and population boom, which is well-documented in published literature, contemporary sources, and archival records. Based on these considerations, the Sonora High School campus does not appear to meet any of the criteria for listing in the California Register of Historical Resources. As such, it does not appear to qualify as a "historical resource" in the "discretionary" category.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

In summary of the findings and analysis outlined above, the Sonora High School campus was evaluated against the criteria for listing in the California Register of Historical Resources as a part of this study and was found not to be eligible. Therefore, it does not qualify as a "historical resource"

for CEQA-compliance purposes. Pursuant to PRC §21084.1, CRM TECH recommends to the FJUHSD a conclusion that the proposed project's potential impact on the campus would not constitute "a substantial adverse change in the significance of a historical resource." No further cultural resources investigation is recommended for the campus.

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1965c Fight for Steel Begins. November 23:A22.
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1966b Fullerton School Name "Sonora." March 8:A2.
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1969 Map: San Bernardino, Calif. (120'x60', 1:250,000); 1958 edition revised.
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1981 Map: La Habra, Calif. (7.5', 1:24,000); 1964 edition photorevised in 1978.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR, HISTORY/ARCHITECTURAL HISTORY
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR, ARCHAEOLOGY
Daniel Ballester, M.S., RPA (Registered Professional Archaeologist)

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.
2021	An Introduction to Geoarchaeology: How Understanding Basic Soils, Sediments, and Landforms Can Make You a Better Archaeologist; Society for American Archaeology online seminar.
2007	Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
2002	Historic Archaeology Workshop; presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base, at CRM TECH, Riverside, California.

Professional Experience

2025-	Principal Investigator, CRM TECH, Riverside/Colton, California.
2002-2024	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
2011-2012	GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew Chief, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew, ECorp, Redlands.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

Cultural Resources Management Reports

Field Director, co-author, and contributor to numerous cultural management reports since 2002.

Memberships

Society for American Archaeology; Society for California Archaeology.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Nicole A. Raslich, M.A.

Education

2017-	Ph.D. candidate, Michigan State University, East Lansing.
2011	M.A., Anthropology, Michigan State University, East Lansing.
2005	B.A., Natural History of Biology and Anthropology, University of Michigan, Flint.
2022	Adult First Aid/CPR/AED Certification, American Red Cross.
2019	Grant and Research Proposal Writing for Archaeologists; SAA Online Seminar.
2014	Bruker Industries Tracer S1800 pXRF Training; presented by Dr. Bruce Kaiser, Bruker Scientific.
2013	Introduction to ArcGIS, Michigan State University, East Lansing.

Professional Experience

2022-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2022	Archaeological Technician, Agua Caliente Band of Cahuilla Indians, Palm Springs, California.
2008-2021	Archaeological Consultant, Saginaw Chippewa Indian Tribe of Michigan.
2019	Archaeologist, Sault Tribe of Chippewa Indians and Little Traverse Bay Band of Odawa Indians
2018	Teaching Assistant, Michigan State University, East Lansing.
2017	Adjunct Professor, University of Michigan, Flint.
2015-2016	Graduate Fellow, Michigan State University Campus Archaeology Program, East Lansing.
2015	Archaeologist, Michigan State University, Illinois State Museum, and Dickson Mounds Museum.
2013-2015	Curation Research Assistant, Michigan State University Museum, East Lansing.
2008-2014	Research Assistant, Intellectual Property Issues in Cultural Heritage, Simon Frasier University, British Columbia, Canada.
2009-2012	Editorial Assistant/Copy Editor, *American Antiquity*.
2009-2011	Archaeologist/Crew Chief, Saginaw Chippewa Indian Tribe of Michigan.

Publications

2017	Preliminary Results of a Handheld X-Ray Fluorescence (pXRF) Analysis on a Marble Head Sarcophagus Sculpture from the Collection of the Kresge Art Center, Michigan State University. Submitted to Jon M. Frey, Department of Art, Art History, and Design. Michigan State University, East Lansing.
2016	Preserving Sacred Sites: Arctic Indigenous Peoples as Cultural Heritage Rights Holders (L. Heinämäki, T.M. Herrmann, and N.A. Raslich). University of Lapland Printing Centre, Rovaniemi, Finland.

PROJECT ARCHAEOLOGIST/HISTORIAN/FIELD DIRECTOR
Hunter C. O'Donnell, B.A.

Education

2016-	M.A. Program, Applied Archaeology, California State University, San Bernardino.
2015	B.A. (*cum laude*), Anthropology, California State University, San Bernardino.
2012	A.A., Social and Behavioral Sciences, Mt. San Antonio College, Walnut, California.
2011	A.A., Natural Sciences and Mathematics, Mt. San Antonio College, Walnut, California.
2014	Archaeological Field School, Santa Rosa Mountains; supervised by Bill Sapp of the United States Forest Service and Daniel McCarthy of the San Manuel Band of Mission Indians.

Professional Experience

2025-	Field Director, CRM TECH, Colton, California.
2022-2025	Field Crew Chief, CRM TECH, Colton, California.
2017-	Project Archaeologist/Historian, CRM TECH, Colton, California.
2016-2018	Graduate Research Assistant, Applied Archaeology, California State University, San Bernardino.
2016-2017	Cultural Intern, Cultural Department, Pechanga Band of Luiseño Indians, Temecula, California.
2015	Archaeological Intern, U.S. Bureau of Land Management, Barstow, California.
2015	Peer Research Consultant: African Archaeology, California State University, San Bernardino.

PROJECT ARCHAEOLOGIST
Melissa A. Portilla, B.A.

Education

2023	A.A. (*cum laude*), Anthropology, Fullerton College.
2019	B.A., Ancient History: Classics, University of Hawaii, Manoa.

Professional Experience

2023-	Project Archaeologist, CRM TECH, Colton, California.
2023-2024	Project Archaeologist, Psomas, Pasadena, California.
2020	Collections Assistant, Museum of Us, San Diego, California.

PROJECT ARCHAEOLOGIST
Eulices Lopez, B.S.

Education

2015	B.S., Anthropology, University of California, Riverside.
2013	A.A., Anthropology, East Los Angeles College, Monterey Park, California.

Professional Experience

2024-	Project Archaeologist/Native American Liaison, CRM TECH, Colton, California.
2017-2024	Deputy Coordinator, Eastern Information Center, University of California, Riverside.
2017-2024	Director Assistant, Archaeological Research Unit, University of California, Riverside.
2017-2024	Curator Facilitator, Archaeological Curation Unit, University of California, Riverside.
2014-2015	Information Officer, Eastern Information Center, University of California, Riverside.
2013	Lithic Analyst Assistant, Anthropology Department, East Los Angeles College, Monterey Park, California.
2012	Hominid Cast Fossils Cataloger, Anthropology Department, East Los Angeles College, Monterey Park, California.

APPENDIX 2

CALIFORNIA HISTORICAL RESOURCES INVENTORY RECORD FORMS

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 9 *Resource Name or # (Assigned by recorder) CRM TECH 4335-01H

P1. Other Identifier: _____

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County Orange

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad La Habra, Calif. Date 1964, photorevised 1981
T3S; R10W; E 1/2 of NE 1/4 of Sec 9 ; S.B. B.M. (within the Rancho San Juan Cajón de Santa Ana land grant)

c. Address 401 South Palm Street City La Habra Zip 90631

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ;
NW Corner: 414,165 mE/ 3,754,765 mN; NE Corner: 414,555 mE/ 3,695,604 mN
SW Corner: 414,160 mE/ 3,754,375 mN; SE Corner: 414,550 mE/ 3,754,765 mN
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Parcel Number 296-021-01 and 296-402-13; on the west side of Palm Street, approximately 590 feet north of Lambert Road

*P3a Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Sonora High School consists of a main building constructed in 1966, several small outbuildings in the agricultural section and for general property maintenance, and two modern buildings, namely the science and social science building (Building 900) and the "large gym" (Building 1000). The main building, which encompasses most of the interior spaces of the school, is a large, (*Continued on Page 4*)

*P3b. Resource Attributes: (List attributes and codes) HP15: Educational buildings (high school campus)

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): Main entrance, January 9, 2026; view to the west

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
Circa 1966

*P7. Owner and Address: Fullerton Joint Union High School District, 1051 West Bastanchury Road, Fullerton, CA 92833

*P8. Recorded by (Name, affiliation, & address): Melissa Portilla, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: January 9, 2026

*P10. Survey Type (describe): Phase I survey for CEQA compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Nicole Raslich, Hunter O'Donnell, and Melissa Portilla (2026): Historic-Period Building Evaluation: Sonora High School, 401 S. Palm Street, City of La Habra, Orange County, California

*Attachments: ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Other (List): _____

DPR 523A (9/2013) [adapted] *Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code _____

*Resource Name or # (Assigned by recorder) CRM TECH 4335-01H

B1. Historic Name: Sonora High School
B2. Common Name: Same
B3. Original Use: Educational
B4. Present Use: Educational
*B5. **Architectural Style:** Modern
*B6. **Construction History:** (Construction date, alterations, and date of alterations) Plans for what was originally called "High School 7" by architect William Blurock in his design drawings for the project were approved in early 1965. After delays caused by various litigations and supply issues, the construction work was finally underway in early 1966, with Argo Construction Company identified as the primary contractor. The school officially opened in October 1966, with some of the buildings still under construction. The name "Sonora High School," the school colors of navy blue and gold, and the official nickname "Raiders" were selected through a student election in March of 1966. Once construction was completed, the FJUHSD retained the service of architect Fred Lang of South Laguna to landscape the campus. *(Continued on Page 4).*
*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:** _____
*B8. **Related Features:** _____
B9a. Architect: William Blurock
b. Builder: Argo Construction Company
*B10. **Significance:** **Theme** Post-WWII urban/suburban expansion
Area La Habra
Period of Significance 1960s-1970s
Property Type High school
Applicable Criteria N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) Opened in 1966 as the seventh high school in the FJUHSD, Sonora High School was established at a time when the post-WWII boom matured and school expansion became critical to accommodate the rapidly growing school-aged population. As such, its origin and early history are directly associated with the phenomenal urban/suburban expansion that swept across the nation during the post-war era, an event—or pattern of events—that left a lasting impact on the history of the U.S. and particularly on southern California. However, as one of (*Continued on Page 4*)
B11. Additional Resource Attributes: (List attributes and codes) _____
B12. **References:** See Item P11.
B13. Remarks: _____
*B14. **Evaluator:** Bai "Tom" Tang, M.A.
***Date of Evaluation:** February 2026

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

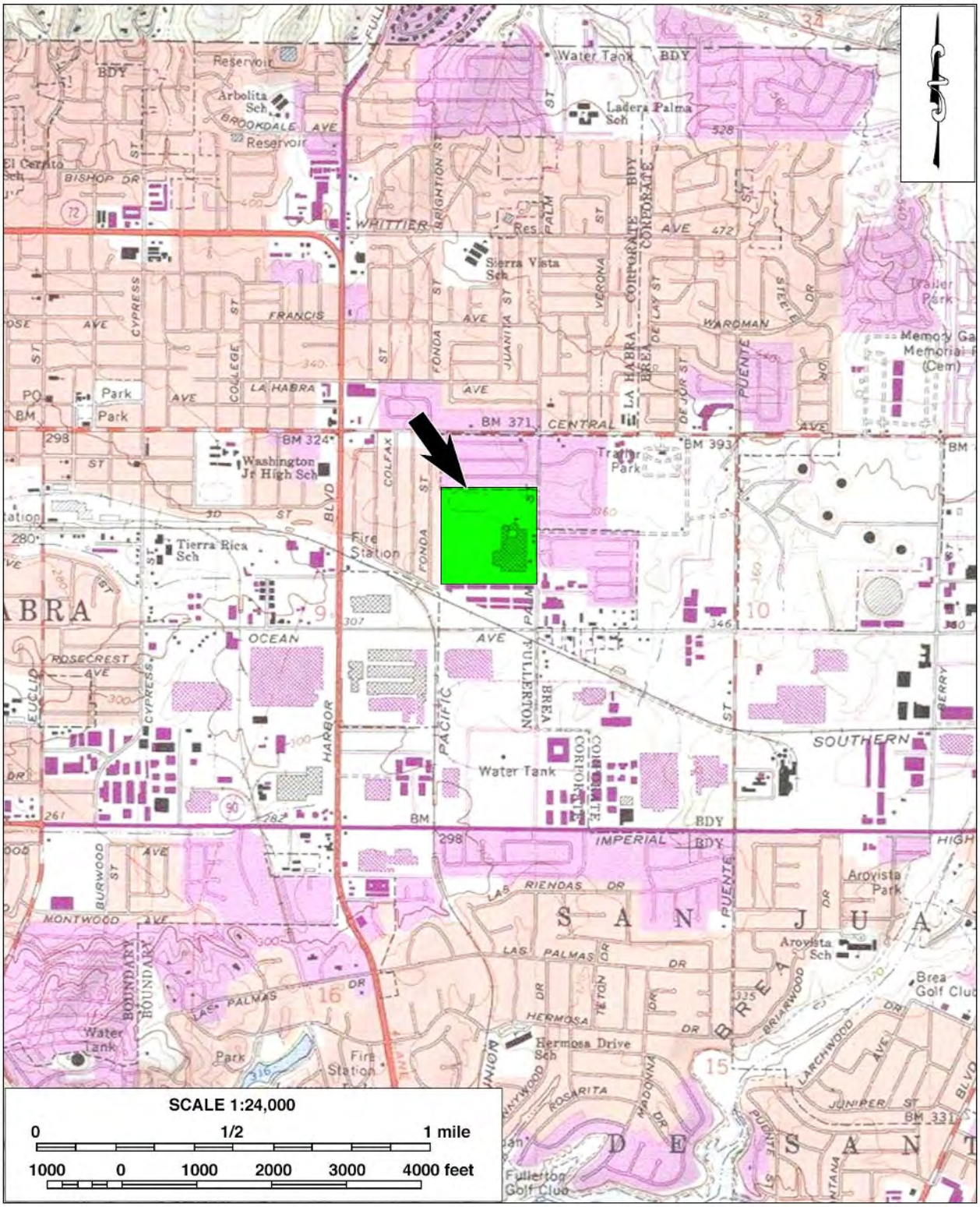
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

Page 3 of 9 *Resource Name or # (Assigned by recorder) CRM TECH 4335-01H

*Map Name: La Habra, Calif. *Scale: 1:24,000 *Date of Maps: 1964/1981



DPR 523J (Rev. 1/1995) (Word 9/2013)*Required information

Recorded by: Melissa Portilla *Date: January 9, 2026 √ Continuation Update

*P3a. **Description (continued):** irregularly shaped building with a void near the north end to accommodate the swimming pool. The flat roof of the building is covered with what appears to be BUR and has no eaves. The exterior wall surface features a mixture of concrete bricks and stucco cladding with black metallic trim. Doors are steel-framed and painted black with some having a boarded-over transom opening while others are partially glazed with fixed transom windows above.

The two-story science and social science building is rectangular in shape and rests on a concrete foundation. The flat BUR roof features a black metallic fascia and little eave overhang though there is a walkway overhang extending off of the east side of the building. The walls are clad in white stucco. Doors are all steel-framed, some of them glazed. Fenestration consists of steel-framed sliding windows.

The three-story large gym is rectangular in shape and rests on a concrete foundation. The roof is nearly flat and is surrounded by low parapets. The exterior walls are covered with smoothed concrete with vertical fluting along either side of the central body. Protruding poured concrete columns line the southern and northern façades. The central portions of the eastern and western façades are rounded in a semi-circle with fixed mesh metal panels. Doors are steel-framed with a variety of single and double steel doors and two fully glazed doors at either end along the entrance alcoves. Fenestration consists of semi-circular walls of fixed and tinted windows in steel frames along the west side and fixed sidelite and transom windows at the entry doors to the east. A mesh fence is installed around the second level perimeter and a metal roofed walkway rounds the southeast and southwest corners with a prominent semi-circle covering over the eastern entry, where a metallic "SONORA" signage faces the parking lot in front.

Additional outbuildings around the main building include a corrugated metal shed, a cinder block and corrugated steel storage building, a locker room building with stucco walls and tan brick fascia accents with steel-framed steel doors and concrete partitions at entryways. The agricultural area includes two pastures, three pole-barn stables, and stucco and corrugated steel storage and small animal enclosure buildings. A pool, tennis courts, blacktop with basketball courts, track and athletic field, two softball fields and two baseball fields (junior varsity and varsity) make up the athletic activity areas arranged around the campus.

*B6. **Construction History (continued):** A 1972 aerial photograph offers an overview of the campus in its early years. Since then, the configuration of the campus has remained largely unchanged, although some localized alterations and/or additions did occur, mostly notably the construction of the science and social building (No. 900) between the main building and the athletic fields in 2003-2004 and the "large gym" (No. 1000) to the north of the main building in 2018-2019. The configuration of some of the sports fields was altered over the years, but the overall land use and character of the area is unchanged.

*B10. **Significance (continued):** the numerous public education institutions in the region of similar vintage, Sonora High School does not demonstrate a unique or particularly close association with that event or historic theme. No specific events of recognized historic significance have been identified in association with the school.

Similarly, no historic figures of recognized significance have been identified in close association with Sonora High School. While a number of Sonora alumni later went on to become distinguished in their careers and reach

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*B10. **Significance (continued):** a level of significance in their respective fields, such as famed film director James Cameron, their accomplishments postdate their association with the school. Furthermore, there is no evidence that their accomplishments have attained the level of historic significance required by the National Register of Historic Places or the California Register of Historical Resources, especially given the relatively recent time frame of their professional lives.

The campus architecture demonstrates the basic characteristics of Mid-century Modernism, a style that was ubiquitous in California—and indeed throughout the U.S. and the world—during the post-war decades, but it does not stand out as an important example of the Modernist movement in architecture or of any property type, period, region, or method of construction. Nor does it exhibit a particularly high level of artistic value or any other distinctive merits to distinguish it from the numerous similar school campuses of similar age throughout southern California and the U.S.

The designer of the 1966 main building, architect William E. Blurock, is well recognized for his achievements in architecture, including hundreds of schools and colleges in the State of California and elsewhere, along other buildings. While Blurock undoubtedly qualifies as a master architect, Sonora High School, with its relatively common design for post-war educational institutions and other office buildings, has not been recognized as an important, exemplary, or especially notable example of his work.

Lastly, as a common late-historic-period facility, Sonora High School is unlikely to yield information important to the study of the pertinent aspects of national, state, or local history, such as the accelerated growth of public education in the age of suburban expansion and population boom, which is well-documented in published literature, contemporary sources, and archival records. Based on these considerations, the Sonora High School campus does not appear to meet any of the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources.

Additional Photographs:



Main building. *Left*: along the eastern (front) façade, view to the northwest; *right*: rear of the building, view to the southwest



Gym. *Left*: connection between the main building and the gym, view to the west; *right*: northern façade of the gym, view to the south



Main building. *Left*: locker rooms, view to the northeast; *right*: front of the building, view to the northwest

Additional Photographs:



Modern additions. *Left*: large gym (No. 1000), view to the west; *right*: science and social science building (No. 900), view to the southwest



Steel outbuildings. *Left*: grounds maintenance building, view to the north; *right*: outbuilding against main building mass, view to the northeast



Outbuildings. *Left*: three adjoined buildings in parking lot, view to the southwest; *right*: agricultural building, view to the southeast

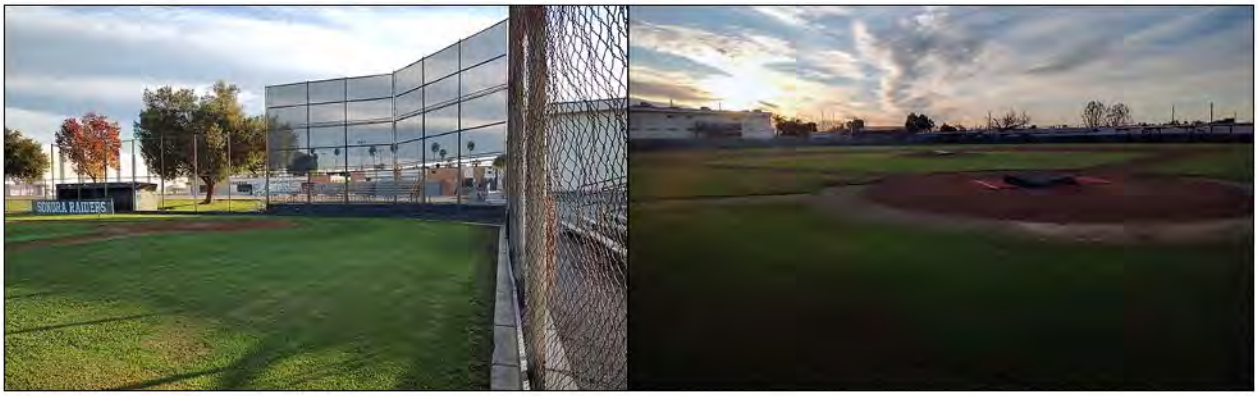
Additional Photographs:



Agricultural buildings. *Left*: small animal enclosures, view to the north; *right*: livestock pole barn, view to the west



Secondary features. *Left*: greenhouse and garden, view to the north; *right*: solar panel-covered parking, view to the north



Athletic fields. *Left*: junior varsity baseball field, view to the northwest; *right*: varsity baseball field, view to the southwest

Additional Photographs:



Athletic fields. *Left*: junior varsity softball field, view to the northwest; *right*: varsity softball field, view to the northeast



Athletic fields. *Left*: Soccer/multipurpose field, view to the west; *right*: main athletic field, view to the west



Athletic areas. *Left*: obstacle course, view to the north; *right*: tennis courts, view to the south

APPENDIX C NOISE

APPENDIX

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Fundamentals of Noise

NOISE

Noise is most often defined as unwanted sound; whether it is loud, unpleasant, unexpected, or otherwise undesirable. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (20 μPa).

- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second ($1x10^{-6}$ in/sec).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Maximum Sound Level (L_{max})**. The highest RMS sound level measured during the measurement period.
- **Root Mean Square Sound Level (RMS).** The square root of the average of the square of the sound pressure over the measurement period.
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz [Hz] or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 1 Noise Perceptibility

Change in dB	Noise Level
± 3 dB	Barely perceptible increase
± 5 dB	Readily perceptible increase
± 10 dB	Twice or half as loud
± 20 dB	Four times or one-quarter as loud

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are "felt" more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people's judgments of the "noisiness" of different sounds and has been used for many years as a measure of community and industrial noise. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These "n" values are typically used to demonstrate compliance for stationary noise sources with many cities' noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment (or "penalty") of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00

PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or L_{dn} metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective ("hard site") surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 2 shows typical noise levels from familiar sources.

Table 2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position; velocity is the instantaneous speed that a point on a surface moves; and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the

square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage and RMS is typically more suitable for evaluating human response.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 3 Human Reaction to Typical Vibration Levels

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: California Department of Transportation (Caltrans). 2020, April. *Transportation and Construction Vibration Guidance Manual.* Prepared by ICF International.

Measurement Report

Report Summary

Meter's File Name	LxT_Data.133.s	Computer's File Name	LxT_0005424-20250805 152112-LxT_Data.133.ldbin
Meter	LxT1 0005424	Firmware	2.404
User	AC	Location	LT-3
Job Description	FHS-0.80 Sonora Band Practice		
Note			

Start Time	2025-08-05 15:21:12	Duration	0:11:39.2		
End Time	2025-08-05 15:32:51	Run Time	0:11:39.2	Pause Time	0:00:00.0
Pre-Calibration	2025-08-05 14:52:00	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	56.1 dB		
LAE	84.5 dB	SEA	--- dB
EA	31.6 µPa²h		
EA8	1.3 mPa²h		
EA40	6.5 mPa²h		
LAS_{peak}	92.4 dB	2025-08-05 15:31:11	
LAS_{max}	67.9 dB	2025-08-05 15:28:59	
LAS_{min}	43.9 dB	2025-08-05 15:23:52	
LA_{eq}	56.1 dB		
LC_{eq}	69.1 dB	LC_{eq} - LA_{eq}	13.0 dB
LAI_{eq}	61.9 dB	LAI_{eq} - LA_{eq}	5.8 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpk > 135.0 dB	0	0:00:00.0
LASpk > 137.0 dB	0	0:00:00.0
LASpk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
--- dB	--- dB	0.0 dB

LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	56.1 dB		--- dB		--- dB	
$LS_{(max)}$	67.9 dB	2025-08-05 15:28:59	--- dB	None	--- dB	None
$LS_{(min)}$	43.9 dB	2025-08-05 15:23:52	--- dB	None	--- dB	None
$L_{Peak(max)}$	92.4 dB	2025-08-05 15:31:11	--- dB	None	--- dB	None

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	65.0 dB
LAS 8.0	61.4 dB
LAS 25.0	56.0 dB
LAS 50.0	49.4 dB
LAS 90.0	46.1 dB
LAS 99.0	44.9 dB

Measurement Report

Report Summary

Meter's File Name	LxT_Data.134.s	Computer's File Name	LxT_0005424-20250805 153355-LxT_Data.134.ldbin
Meter	LxT1 0005424	Firmware	2.404
User	AC	Location	LT-4
Job Description	FHS-0.80 Sonora Band Practice		
Note			

Start Time	2025-08-05 15:33:55	Duration	0:10:19.2		
End Time	2025-08-05 15:44:15	Run Time	0:10:18.9	Pause Time	0:00:00.3
Pre-Calibration	2025-08-05 14:52:00	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	56.8 dB		
LAE	84.7 dB	SEA	--- dB
EA	32.9 µPa²h		
EA8	1.5 mPa²h		
EA40	7.7 mPa²h		
LAS_{peak}	88.0 dB	2025-08-05 15:39:13	
LAS_{max}	64.7 dB	2025-08-05 15:38:12	
LAS_{min}	42.1 dB	2025-08-05 15:36:54	
LA_{eq}	56.8 dB		
LC_{eq}	70.5 dB	LC_{eq} - LA_{eq}	13.7 dB
LAI_{eq}	62.0 dB	LAI_{eq} - LA_{eq}	5.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpk > 135.0 dB	0	0:00:00.0
LASpk > 137.0 dB	0	0:00:00.0
LASpk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
--- dB	--- dB	0.0 dB

LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	56.8 dB		--- dB		--- dB	
$LS_{(max)}$	64.7 dB	2025-08-05 15:38:12	--- dB	None	--- dB	None
$LS_{(min)}$	42.1 dB	2025-08-05 15:36:54	--- dB	None	--- dB	None
$L_{Peak(max)}$	88.0 dB	2025-08-05 15:39:13	--- dB	None	--- dB	None

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	62.6 dB
LAS 8.0	61.5 dB
LAS 25.0	58.8 dB
LAS 50.0	53.5 dB
LAS 90.0	45.3 dB
LAS 99.0	42.6 dB

Measurement Report

Report Summary

Meter's File Name	LxT_Data.137.s	Computer's File Name	LxT_0005424-20250805 155813-LxT_Data.137.ldbin
Meter	LxT1 0005424	Firmware	2.404
User	AC	Location	LT-6
Job Description	FHS-0.80 Sonora Band Practice		
Note			

Start Time	2025-08-05 15:58:13	Duration	0:10:07.5		
End Time	2025-08-05 16:08:21	Run Time	0:10:07.5	Pause Time	0:00:00.0
Pre-Calibration	2025-08-05 14:52:00	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	51.1 dB		
LAE	78.9 dB	SEA	--- dB
EA	8.7 µPa²h		
EA8	412.2 µPa²h		
EA40	2.1 mPa²h		
LAS_{peak}	88.9 dB	2025-08-05 16:02:32	
LAS_{max}	59.7 dB	2025-08-05 16:05:46	
LAS_{min}	41.7 dB	2025-08-05 16:04:31	
LA_{eq}	51.1 dB		
LC_{eq}	64.0 dB	LC_{eq} - LA_{eq}	12.9 dB
LAI_{eq}	56.0 dB	LAI_{eq} - LA_{eq}	4.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LASpk > 135.0 dB	0	0:00:00.0
LASpk > 137.0 dB	0	0:00:00.0
LASpk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
--- dB	--- dB	0.0 dB

LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	51.1 dB		--- dB		--- dB	
$LS_{(max)}$	59.7 dB	2025-08-05 16:05:46	--- dB	None	--- dB	None
$LS_{(min)}$	41.7 dB	2025-08-05 16:04:31	--- dB	None	--- dB	None
$L_{Peak(max)}$	88.9 dB	2025-08-05 16:02:32	--- dB	None	--- dB	None

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 2.0	57.5 dB
LAS 8.0	55.7 dB
LAS 25.0	53.0 dB
LAS 50.0	46.9 dB
LAS 90.0	43.4 dB
LAS 99.0	42.2 dB

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 4-5, 2025
Site: LT-1

Hour	Leq	Lmax	L50	L90
13:00	74.5	98.3	48.2	44.1
14:00	50.8	81.4	47.3	45.9
15:00	46.4	56.9	46.1	45.0
16:00	46.8	57.1	46.4	44.9
17:00	51.9	72.0	48.6	46.5
18:00	57.4	74.9	55.1	49.5
19:00	55.8	70.8	53.7	51.0
20:00	52.8	70.5	48.8	45.0
21:00	45.9	59.2	45.4	44.2
22:00	47.4	66.5	45.4	44.6
23:00	44.8	52.5	44.6	44.0
0:00	44.8	63.8	44.3	43.7
1:00	44.4	56.6	44.2	43.7
2:00	44.8	56.4	44.5	43.9
3:00	45.3	54.6	44.9	44.3
4:00	45.6	52.2	45.4	44.6
5:00	46.3	57.0	45.9	45.2
6:00	46.2	60.0	45.2	44.3
7:00	46.3	66.1	45.7	45.0
8:00	47.5	61.6	46.4	45.4
9:00	47.1	55.4	46.9	45.5
10:00	47.1	63.7	45.5	44.7
11:00	45.5	57.4	44.3	43.2
12:00	46.1	60.3	45.5	44.4

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	63.9	67.1	47.2	45.3
Evening (7 p.m. - 9 p.m.)	53.1	66.8	49.3	46.7
Nighttime (9 p.m. - 7 a.m.)	45.6	57.7	44.9	44.3

Percentage of Energy

Daytime	97%
Evening	2%
Nighttime	1%

Calculated CNEL, dBA

61.6

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-1

Hour	Leq	Lmax	L50	L90
13:00	48.9	72.0	45.6	44.4
14:00	55.3	72.3	46.5	44.4
15:00	62.0	75.0	54.9	47.9
16:00	57.4	73.5	47.5	45.7
17:00	50.7	66.6	48.3	46.3
18:00	58.1	74.8	55.3	51.6
19:00	55.5	72.1	53.1	50.2
20:00	53.0	69.9	48.9	45.8
21:00	47.1	66.4	45.8	44.9
22:00	46.0	57.6	45.5	44.7
23:00	45.4	53.8	45.0	44.4
0:00	45.6	58.4	45.0	44.4
1:00	45.5	56.8	45.3	44.6
2:00	45.7	57.8	45.3	44.3
3:00	45.3	51.5	45.1	44.3
4:00	45.6	54.2	45.4	44.4
5:00	47.0	58.9	46.6	45.8
6:00	47.7	57.7	47.3	46.4
7:00	50.6	67.6	48.1	47.3
8:00	47.9	56.7	47.5	46.4
9:00	46.2	55.8	45.8	44.8
10:00	44.6	58.8	44.0	43.0
11:00	44.0	50.1	43.7	42.6
12:00	45.0	53.2	44.6	43.4

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	54.8	64.7	47.7	45.7
Evening (7 p.m. - 9 p.m.)	53.1	69.5	49.3	47.0
Nighttime (9 p.m. - 7 a.m.)	46.1	56.3	45.6	44.8

Percentage of Energy

Daytime	79%
Evening	13%
Nighttime	8%

Calculated CNEL, dBA

55.8

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 4-5, 2025
Site: LT-2

Hour	Leq	Lmax	L50	L90
13:00	54.4	67.6	51.6	49.9
14:00	53.4	65.3	52.2	50.7
15:00	52.1	64.4	51.2	50.1
16:00	51.6	62.8	51.1	49.8
17:00	55.7	71.7	52.5	50.6
18:00	61.2	75.1	59.1	53.6
19:00	61.0	77.0	58.4	55.0
20:00	58.1	80.1	52.2	48.9
21:00	50.0	63.2	49.4	48.3
22:00	50.6	67.7	48.7	48.0
23:00	48.1	57.0	47.8	47.0
0:00	48.3	71.1	47.3	46.8
1:00	47.6	61.4	47.1	46.6
2:00	47.6	55.6	47.2	46.7
3:00	48.3	56.9	48.0	47.1
4:00	49.1	56.8	48.8	47.8
5:00	49.6	59.0	49.1	48.5
6:00	50.0	66.8	49.3	48.4
7:00	50.4	60.2	50.0	49.3
8:00	51.2	66.6	50.4	49.5
9:00	51.3	62.9	51.0	49.7
10:00	51.7	67.0	50.0	49.2
11:00	50.8	69.4	49.5	48.3
12:00	51.1	66.0	50.0	48.9

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	54.3	66.6	51.6	50.0
Evening (7 p.m. - 9 p.m.)	58.2	73.4	53.3	50.7
Nighttime (9 p.m. - 7 a.m.)	48.9	61.4	48.1	47.4

Percentage of Energy

Daytime	55%
Evening	34%
Nighttime	12%

Calculated CNEL, dBA

58.3

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-2

Hour	Leq	Lmax	L50	L90
13:00	55.0	76.8	50.9	49.6
14:00	62.4	79.9	52.3	49.7
15:00	69.2	82.2	61.4	52.9
16:00	64.8	81.5	51.9	50.3
17:00	56.7	74.2	53.0	50.9
18:00	63.6	83.0	59.3	55.7
19:00	60.7	78.0	57.9	54.4
20:00	56.2	72.3	53.7	50.0
21:00	51.4	68.6	49.6	48.7
22:00	49.8	60.1	49.1	48.4
23:00	49.0	58.1	48.4	47.5
0:00	49.3	61.8	48.2	47.6
1:00	48.9	60.1	48.4	47.8
2:00	49.5	60.3	49.0	47.8
3:00	49.0	55.2	48.7	47.8
4:00	49.1	58.4	48.9	47.8
5:00	50.8	62.1	50.5	49.6
6:00	51.7	60.5	51.3	50.5
7:00	53.8	67.2	52.2	51.4
8:00	52.4	71.1	51.7	50.6
9:00	50.8	61.4	50.3	49.5
10:00	49.8	63.1	49.1	48.0
11:00	49.0	61.1	48.4	47.5
12:00	50.8	66.7	49.6	48.4

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	61.5	72.4	52.5	50.4
Evening (7 p.m. - 9 p.m.)	57.6	73.0	53.7	51.0
Nighttime (9 p.m. - 7 a.m.)	49.8	59.6	49.2	48.3

Percentage of Energy

Daytime	87%
Evening	9%
Nighttime	4%

Calculated CNEL, dBA

61.1

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 4-5, 2025
Site: LT-3

Hour	Leq	Lmax	L50	L90
13:00	44.7	56.9	43.9	43.1
14:00	47.7	60.0	46.7	44.4
15:00	46.2	56.0	45.6	43.9
16:00	46.6	63.4	45.8	44.1
17:00	49.2	63.1	47.7	46.1
18:00	55.9	76.5	52.6	48.2
19:00	55.7	70.8	53.2	50.1
20:00	52.9	71.5	48.3	44.5
21:00	46.1	63.7	45.0	44.0
22:00	47.4	67.9	44.6	43.7
23:00	44.2	56.4	43.6	43.0
0:00	43.8	60.5	43.1	42.3
1:00	47.4	52.3	47.4	46.9
2:00	46.9	51.5	46.9	45.5
3:00	46.9	55.1	46.9	45.2
4:00	44.9	55.3	44.6	43.8
5:00	46.2	60.0	45.7	44.5
6:00	45.8	59.7	45.4	44.4
7:00	46.5	55.6	46.1	45.4
8:00	46.6	59.2	46.1	45.2
9:00	46.2	53.8	45.9	45.0
10:00	47.7	67.0	45.1	44.2
11:00	44.6	59.9	43.6	42.7
12:00	44.5	65.1	43.9	43.0

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	48.7	61.4	46.1	44.6
Evening (7 p.m. - 9 p.m.)	53.1	68.7	48.8	46.2
Nighttime (9 p.m. - 7 a.m.)	46.1	57.6	45.4	44.4

Percentage of Energy

Daytime	48%
Evening	32%
Nighttime	20%

Calculated CNEL, dBA

54.3

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-3

Hour	Leq	Lmax	L50	L90
13:00	49.9	76.7	44.0	43.2
14:00	50.8	68.6	45.0	43.3
15:00	58.6	72.7	52.1	46.7
16:00	54.7	71.6	46.8	45.2
17:00	50.9	69.4	47.4	45.5
18:00	57.6	77.3	53.5	50.1
19:00	57.6	82.9	53.0	49.7
20:00	51.2	64.1	49.3	45.6
21:00	46.6	62.6	45.5	44.5
22:00	46.2	57.6	45.2	43.9
23:00	45.7	58.4	45.3	43.5
0:00	45.8	52.1	45.3	43.4
1:00	44.5	56.2	43.9	42.8
2:00	45.6	56.0	45.4	44.6
3:00	45.9	62.3	45.5	44.5
4:00	45.3	55.9	45.2	43.7
5:00	46.2	54.0	45.9	44.8
6:00	48.2	54.6	47.8	46.9
7:00	49.4	64.1	48.3	47.4
8:00	47.6	54.4	47.0	45.8
9:00	47.6	59.3	46.3	45.3
10:00	46.2	58.8	44.1	42.6
11:00	44.0	53.0	43.4	42.4
12:00	44.9	58.5	43.9	42.8

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	52.7	65.4	46.8	45.0
Evening (7 p.m. - 9 p.m.)	54.0	69.9	49.3	46.6
Nighttime (9 p.m. - 7 a.m.)	46.0	56.3	45.5	44.2

Percentage of Energy

Daytime	67%
Evening	22%
Nighttime	11%

Calculated CNEL, dBA

55.3

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 4-5, 2025
Site: LT-4

Hour	Leq	Lmax	L50	L90
13:00	65.2	91.9	41.7	40.5
14:00	44.8	61.8	42.9	41.3
15:00	43.3	59.8	41.6	40.5
16:00	42.5	54.0	41.8	40.7
17:00	44.3	59.1	42.6	41.5
18:00	49.4	67.7	46.8	43.2
19:00	52.0	73.1	48.2	45.1
20:00	47.8	66.1	44.6	43.3
21:00	43.3	58.3	42.4	41.1
22:00	45.0	64.0	42.5	41.4
23:00	44.2	52.7	43.5	41.7
0:00	42.2	50.3	41.8	40.7
1:00	42.8	45.9	42.2	41.6
2:00	42.6	50.1	42.2	40.8
3:00	42.2	51.8	42.0	40.8
4:00	42.2	47.7	42.0	41.2
5:00	42.9	53.3	42.3	41.6
6:00	43.9	59.6	42.8	41.8
7:00	44.1	56.0	43.4	42.7
8:00	44.1	58.9	43.0	42.2
9:00	44.3	58.8	43.3	42.4
10:00	45.1	63.3	42.2	41.3
11:00	44.2	61.9	41.3	40.2
12:00	44.1	61.9	41.2	40.2

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	54.8	62.9	42.7	41.4
Evening (7 p.m. - 9 p.m.)	49.0	65.8	45.1	43.2
Nighttime (9 p.m. - 7 a.m.)	43.2	52.8	42.4	41.3

Percentage of Energy

Daytime	89%
Evening	6%
Nighttime	5%

Calculated CNEL, dBA

54.2

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-4

Hour	Leq	Lmax	L50	L90
13:00	48.5	74.4	41.3	40.4
14:00	46.5	65.4	42.6	40.5
15:00	52.7	65.7	46.8	42.4
16:00	49.7	66.1	43.2	41.4
17:00	44.1	61.4	42.5	41.3
18:00	51.2	69.2	47.5	44.5
19:00	49.7	68.3	46.5	43.7
20:00	46.2	58.9	45.3	41.4
21:00	43.3	59.8	42.0	41.0
22:00	43.4	52.2	43.3	41.2
23:00	42.0	50.5	41.5	40.7
0:00	42.5	50.8	42.1	41.3
1:00	41.5	53.0	41.2	40.6
2:00	41.5	52.7	41.0	40.5
3:00	43.1	59.1	42.7	42.0
4:00	43.1	53.3	43.0	42.2
5:00	43.4	48.1	43.3	42.3
6:00	45.4	58.3	44.4	43.6
7:00	45.9	61.2	44.7	43.6
8:00	44.6	58.9	43.8	42.5
9:00	48.9	62.9	44.1	41.9
10:00	45.9	60.1	41.0	40.0
11:00	41.2	54.2	40.2	39.6
12:00	43.9	61.5	41.0	39.9

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	48.1	63.4	43.2	41.5
Evening (7 p.m. - 9 p.m.)	47.2	62.3	44.6	42.0
Nighttime (9 p.m. - 7 a.m.)	43.0	53.1	42.5	41.6

Percentage of Energy

Daytime	70%
Evening	14%
Nighttime	16%

Calculated CNEL, dBA

51.0

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 4-5, 2025
Site: LT-5

Hour	Leq	Lmax	L50	L90
13:00	70.5	95.9	45.7	44.4
14:00	47.2	60.4	46.4	45.1
15:00	47.8	67.6	45.4	44.3
16:00	46.3	65.5	45.4	44.4
17:00	47.8	63.2	45.9	44.5
18:00	51.1	74.7	47.7	45.8
19:00	54.7	76.0	48.8	46.7
20:00	48.9	68.2	46.0	44.2
21:00	46.6	65.9	45.1	44.2
22:00	47.7	69.3	44.6	43.9
23:00	44.2	60.2	43.5	43.0
0:00	43.7	58.7	43.2	42.7
1:00	43.4	52.0	43.0	42.7
2:00	44.2	60.3	43.7	42.9
3:00	44.3	60.6	43.8	43.1
4:00	44.7	51.8	44.3	43.5
5:00	45.5	55.2	45.0	44.4
6:00	46.2	59.0	45.6	44.8
7:00	48.2	69.9	46.2	45.4
8:00	56.7	83.9	46.1	45.2
9:00	48.8	67.2	46.4	45.5
10:00	48.5	68.6	45.3	44.6
11:00	51.2	64.6	45.3	43.9
12:00	52.6	69.5	45.1	43.9

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	60.2	70.9	45.9	44.8
Evening (7 p.m. - 9 p.m.)	51.4	70.0	46.6	45.0
Nighttime (9 p.m. - 7 a.m.)	45.1	58.6	44.1	43.4

Percentage of Energy

Daytime	95%
Evening	3%
Nighttime	2%

Calculated CNEL, dBA

58.4

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-5

Hour	Leq	Lmax	L50	L90
13:00	52.6	77.7	44.9	44.0
14:00	49.7	66.1	45.7	44.0
15:00	52.7	64.4	48.9	45.5
16:00	50.5	73.4	45.8	44.4
17:00	47.6	66.0	45.7	44.3
18:00	55.3	71.8	51.5	48.0
19:00	50.4	70.8	47.6	46.0
20:00	47.8	59.3	47.0	45.0
21:00	46.2	62.3	44.8	44.0
22:00	45.4	58.1	44.6	43.6
23:00	44.6	53.0	43.9	43.3
0:00	44.1	54.7	43.3	42.8
1:00	43.4	52.7	43.0	42.5
2:00	44.4	62.6	43.6	43.1
3:00	45.2	66.0	44.1	43.2
4:00	45.2	59.4	44.6	43.6
5:00	46.4	55.1	45.9	44.8
6:00	51.2	75.5	47.3	46.3
7:00	60.2	91.6	48.3	46.4
8:00	49.8	68.5	46.7	45.0
9:00	47.0	61.6	45.6	44.6
10:00	45.6	61.9	44.2	43.4
11:00	52.8	74.2	46.4	43.6
12:00	50.5	71.2	45.3	43.8

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	53.2	70.7	46.6	44.8
Evening (7 p.m. - 9 p.m.)	48.5	64.1	46.5	45.0
Nighttime (9 p.m. - 7 a.m.)	46.3	59.7	44.5	43.7

Percentage of Energy

Daytime	81%
Evening	7%
Nighttime	12%

Calculated CNEL, dBA

54.6

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: July 29-30, 2025
Site: LT-6

Hour	Leq	Lmax	L50	L90
13:00	72.8	99.0	45.5	44.1
14:00	47.8	58.2	47.2	45.1
15:00	47.2	64.8	46.5	44.7
16:00	50.8	75.2	46.8	44.8
17:00	48.8	66.4	47.0	45.5
18:00	51.5	68.8	49.6	47.6
19:00	53.4	71.1	50.8	48.6
20:00	55.1	82.0	48.6	45.6
21:00	47.2	61.0	46.5	45.3
22:00	49.8	73.8	45.5	44.6
23:00	45.1	55.7	44.6	43.9
0:00	44.5	56.7	44.3	43.1
1:00	45.1	50.8	44.9	43.7
2:00	45.4	54.6	44.9	43.8
3:00	45.5	53.3	45.4	44.4
4:00	46.2	52.9	45.9	45.0
5:00	47.5	62.0	47.0	46.1
6:00	48.1	56.8	47.8	46.7
7:00	50.1	71.5	48.7	47.9
8:00	50.8	70.2	49.0	47.9
9:00	49.6	59.8	48.7	47.7
10:00	50.5	73.3	47.5	46.4
11:00	46.7	58.4	46.0	44.8
12:00	46.4	55.4	45.7	44.5

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	62.2	68.4	47.4	45.9
Evening (7 p.m. - 9 p.m.)	53.0	71.4	48.6	46.5
Nighttime (9 p.m. - 7 a.m.)	46.7	57.4	45.6	44.6

Percentage of Energy

Daytime	95%
Evening	3%
Nighttime	2%

Calculated CNEL, dBA

60.4

Long-Term 24 Hour Continuous Noise Monitoring
Calculation Input Sheet

Project: FHS-08.0 Sonora
Date: August 5-6, 2025
Site: LT-6

Hour	Leq	Lmax	L50	L90
13:00	52.5	78.5	45.6	44.4
14:00	48.0	60.7	45.9	44.0
15:00	52.0	62.8	49.4	46.5
16:00	49.1	60.9	46.6	45.1
17:00	48.6	63.1	47.1	44.7
18:00	59.0	73.7	56.1	51.2
19:00	54.1	74.6	50.9	48.3
20:00	52.7	68.7	51.3	48.9
21:00	50.2	62.9	49.6	47.0
22:00	47.2	56.1	46.6	45.4
23:00	46.6	64.3	45.5	44.3
0:00	45.8	53.7	44.3	43.4
1:00	44.1	51.3	43.7	43.1
2:00	45.8	59.2	45.0	44.4
3:00	47.0	58.7	46.6	45.6
4:00	46.7	59.1	46.3	45.5
5:00	48.2	55.7	48.0	46.6
6:00	50.2	61.2	49.6	48.8
7:00	51.1	65.0	50.4	49.6
8:00	51.0	71.2	48.9	47.5
9:00	48.5	71.3	47.6	46.2
10:00	48.2	74.3	45.6	44.1
11:00	51.5	73.5	44.9	43.7
12:00	45.9	56.6	45.1	43.7

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 7 p.m.)	52.0	67.6	47.8	45.9
Evening (7 p.m. - 9 p.m.)	52.6	68.7	50.6	48.1
Nighttime (9 p.m. - 7 a.m.)	47.2	57.7	46.2	45.2

Percentage of Energy

Daytime	65%
Evening	19%
Nighttime	16%

Calculated CNEL, dBA

55.4

Project: FHS-08.0 Sonora
User: AC
Location: LT-1

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	74.5	98.3	41.8	87.7	84.3	79.3	75.7	74.6	66.6	48.2	44.1	43.3	42.6
2	8/4/2025	2:00 PM	3:00 PM	1:00	50.8	81.4	44.4	59.4	55.6	51.1	49.8	49.4	48.1	47.3	45.9	45.6	45.1
3	8/4/2025	3:00 PM	4:00 PM	1:00	46.4	56.9	43.7	49.6	48.9	48.1	47.7	47.5	46.8	46.1	45.0	44.8	44.3
4	8/4/2025	4:00 PM	5:00 PM	1:00	46.8	57.1	43.4	51.4	50.3	49.1	48.5	48.2	47.3	46.4	44.9	44.6	44.2
5	8/4/2025	5:00 PM	6:00 PM	1:00	51.9	72.0	44.6	61.6	59.6	56.8	55.3	54.6	51.0	48.6	46.5	46.2	45.5
6	8/4/2025	6:00 PM	7:00 PM	1:00	57.4	74.9	46.3	65.9	64.3	62.2	61.0	60.4	57.8	55.1	49.5	48.5	47.3
7	8/4/2025	7:00 PM	8:00 PM	1:00	55.8	70.8	48.3	64.3	62.7	60.4	59.0	58.4	55.8	53.7	51.0	50.4	49.5
8	8/4/2025	8:00 PM	9:00 PM	1:00	52.8	70.5	43.7	61.9	60.3	57.4	56.1	55.6	53.2	48.8	45.0	44.6	44.1
9	8/4/2025	9:00 PM	10:00 PM	1:00	45.9	59.2	42.7	51.5	49.6	47.6	47.0	46.8	46.1	45.4	44.2	43.9	43.2
10	8/4/2025	10:00 PM	11:00 PM	1:00	47.4	66.5	43.9	55.2	51.2	47.5	46.8	46.5	45.8	45.4	44.6	44.4	44.2
11	8/4/2025	11:00 PM	12:00 AM	1:00	44.8	52.5	43.3	47.4	46.4	45.8	45.6	45.5	45.0	44.6	44.0	43.9	43.7
12	8/5/2025	12:00 AM	1:00 AM	1:00	44.8	63.8	43.3	49.0	46.7	45.6	45.3	45.2	44.7	44.3	43.7	43.6	43.5
13	8/5/2025	1:00 AM	2:00 AM	1:00	44.4	56.6	43.1	46.6	46.1	45.6	45.3	45.1	44.6	44.2	43.7	43.6	43.4
14	8/5/2025	2:00 AM	3:00 AM	1:00	44.8	56.4	43.3	47.7	47.3	46.2	45.6	45.4	44.8	44.5	43.9	43.8	43.7
15	8/5/2025	3:00 AM	4:00 AM	1:00	45.3	54.6	43.5	48.9	48.0	46.8	46.3	46.1	45.4	44.9	44.3	44.2	43.9
16	8/5/2025	4:00 AM	5:00 AM	1:00	45.6	52.2	43.8	48.2	47.7	47.0	46.7	46.6	45.9	45.4	44.6	44.4	44.1
17	8/5/2025	5:00 AM	6:00 AM	1:00	46.3	57.0	44.5	50.5	48.7	47.7	47.4	47.2	46.4	45.9	45.2	45.0	44.8
18	8/5/2025	6:00 AM	7:00 AM	1:00	46.2	60.0	43.3	54.1	52.1	48.6	47.4	46.9	45.8	45.2	44.3	44.1	43.7
19	8/5/2025	7:00 AM	8:00 AM	1:00	46.3	66.1	44.1	49.9	49.0	47.7	47.2	47.0	46.3	45.7	45.0	44.8	44.5
20	8/5/2025	8:00 AM	9:00 AM	1:00	47.5	61.6	44.3	54.0	52.2	50.5	49.5	49.1	47.5	46.4	45.4	45.2	44.8
21	8/5/2025	9:00 AM	10:00 AM	1:00	47.1	55.4	44.1	50.7	49.8	48.8	48.4	48.2	47.5	46.9	45.5	45.1	44.6
22	8/5/2025	10:00 AM	11:00 AM	1:00	47.1	63.7	43.6	56.6	53.0	48.5	47.7	47.3	46.2	45.5	44.7	44.4	44.1
23	8/5/2025	11:00 AM	12:00 PM	1:00	45.5	57.4	42.1	52.7	51.3	48.2	47.1	46.7	45.5	44.3	43.2	43.0	42.7
24	8/5/2025	12:00 PM	1:00 PM	1:00	46.1	60.3	42.8	51.0	49.9	48.4	47.6	47.3	46.3	45.5	44.4	44.2	43.7

Project: FHS-08.0 Sonora
User: AC
Location: LT-1

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	48.9	72.0	43.1	54.1	49.8	47.8	47.2	47.0	46.2	45.6	44.4	44.1	43.6
2	8/5/2025	2:00 PM	3:00 PM	1:00	55.3	72.3	42.2	70.2	66.2	59.1	56.7	55.7	49.3	46.5	44.4	43.9	43.0
3	8/5/2025	3:00 PM	4:00 PM	1:00	62.0	75.0	45.0	70.9	70.3	68.6	67.5	66.9	62.8	54.9	47.9	46.9	45.8
4	8/5/2025	4:00 PM	5:00 PM	1:00	57.4	73.5	43.7	69.7	68.7	64.7	61.4	60.2	53.3	47.5	45.7	45.4	44.6
5	8/5/2025	5:00 PM	6:00 PM	1:00	50.7	66.6	44.6	59.2	57.5	55.3	53.9	53.3	50.5	48.3	46.3	45.8	45.2
6	8/5/2025	6:00 PM	7:00 PM	1:00	58.1	74.8	47.0	67.6	65.4	63.0	61.7	60.8	57.5	55.3	51.6	50.9	49.2
7	8/5/2025	7:00 PM	8:00 PM	1:00	55.5	72.1	46.9	64.3	62.7	60.4	59.0	58.3	55.5	53.1	50.2	49.6	48.6
8	8/5/2025	8:00 PM	9:00 PM	1:00	53.0	69.9	44.4	61.6	60.1	58.3	57.5	57.0	53.3	48.9	45.8	45.5	44.8
9	8/5/2025	9:00 PM	10:00 PM	1:00	47.1	66.4	44.1	54.0	50.5	48.3	47.6	47.3	46.4	45.8	44.9	44.7	44.4
10	8/5/2025	10:00 PM	11:00 PM	1:00	46.0	57.6	43.9	50.9	49.5	47.9	47.1	46.9	46.0	45.5	44.7	44.5	44.2
11	8/5/2025	11:00 PM	12:00 AM	1:00	45.4	53.8	43.7	49.2	48.2	47.0	46.6	46.3	45.5	45.0	44.4	44.3	44.1
12	8/6/2025	12:00 AM	1:00 AM	1:00	45.6	58.4	43.7	49.4	48.7	47.6	47.1	46.9	45.7	45.0	44.4	44.3	44.0
13	8/6/2025	1:00 AM	2:00 AM	1:00	45.5	56.8	43.7	48.0	47.0	46.4	46.3	46.2	45.7	45.3	44.6	44.2	44.0
14	8/6/2025	2:00 AM	3:00 AM	1:00	45.7	57.8	43.6	49.0	48.2	47.3	47.0	46.8	46.2	45.3	44.3	44.1	43.9
15	8/6/2025	3:00 AM	4:00 AM	1:00	45.3	51.5	43.5	47.5	47.1	46.6	46.3	46.2	45.6	45.1	44.3	44.1	43.9
16	8/6/2025	4:00 AM	5:00 AM	1:00	45.6	54.2	43.7	48.6	47.4	46.8	46.5	46.4	45.9	45.4	44.4	44.2	44.0
17	8/6/2025	5:00 AM	6:00 AM	1:00	47.0	58.9	44.9	50.1	49.0	48.3	48.0	47.9	47.3	46.6	45.8	45.6	45.3
18	8/6/2025	6:00 AM	7:00 AM	1:00	47.7	57.7	45.4	51.7	50.8	49.7	49.1	48.8	47.9	47.3	46.4	46.2	45.8
19	8/6/2025	7:00 AM	8:00 AM	1:00	50.6	67.6	46.2	61.6	60.7	52.7	51.1	50.5	48.8	48.1	47.3	47.0	46.6
20	8/6/2025	8:00 AM	9:00 AM	1:00	47.9	56.7	45.6	50.9	50.3	49.8	49.5	49.4	48.6	47.5	46.4	46.2	46.0
21	8/6/2025	9:00 AM	10:00 AM	1:00	46.2	55.8	44.0	51.2	49.1	47.9	47.3	47.0	46.4	45.8	44.8	44.6	44.3
22	8/6/2025	10:00 AM	11:00 AM	1:00	44.6	58.8	42.4	50.1	47.4	46.4	45.9	45.7	44.7	44.0	43.0	42.8	42.6
23	8/6/2025	11:00 AM	12:00 PM	1:00	44.0	50.1	41.6	47.6	46.9	45.7	45.3	45.1	44.4	43.7	42.6	42.3	41.9
24	8/6/2025	12:00 PM	1:00 PM	1:00	45.0	53.2	42.3	50.0	49.0	46.9	46.3	46.0	45.3	44.6	43.4	43.1	42.7

Project: FHS-08.0 Sonora
User: AC
Location: LT-2

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	54.4	67.6	48.8	64.2	62.3	59.7	57.8	57.1	53.6	51.6	49.9	49.5	49.1
2	8/4/2025	2:00 PM	3:00 PM	1:00	53.4	65.3	49.6	60.6	59.1	56.5	55.6	55.1	53.4	52.2	50.7	50.4	49.9
3	8/4/2025	3:00 PM	4:00 PM	1:00	52.1	64.4	48.8	58.6	57.0	54.9	53.8	53.4	52.0	51.2	50.1	49.8	49.3
4	8/4/2025	4:00 PM	5:00 PM	1:00	51.6	62.8	48.4	56.5	55.3	53.8	53.1	52.8	51.9	51.1	49.8	49.5	48.9
5	8/4/2025	5:00 PM	6:00 PM	1:00	55.7	71.7	48.9	65.6	63.1	60.6	59.1	58.3	54.8	52.5	50.6	50.3	49.7
6	8/4/2025	6:00 PM	7:00 PM	1:00	61.2	75.1	50.4	68.8	67.7	66.1	65.2	64.7	62.1	59.1	53.6	52.5	51.6
7	8/4/2025	7:00 PM	8:00 PM	1:00	61.0	77.0	52.2	70.0	68.0	65.5	64.3	63.8	61.0	58.4	55.0	54.4	53.5
8	8/4/2025	8:00 PM	9:00 PM	1:00	58.1	80.1	47.7	67.8	65.8	62.5	60.6	59.8	57.4	52.2	48.9	48.7	48.2
9	8/4/2025	9:00 PM	10:00 PM	1:00	50.0	63.2	47.2	55.8	53.1	51.5	51.0	50.8	50.0	49.4	48.3	48.1	47.5
10	8/4/2025	10:00 PM	11:00 PM	1:00	50.6	67.7	47.3	59.2	56.2	51.4	50.3	50.0	49.2	48.7	48.0	47.8	47.5
11	8/4/2025	11:00 PM	12:00 AM	1:00	48.1	57.0	46.6	50.8	49.9	49.2	48.9	48.8	48.2	47.8	47.0	46.9	46.7
12	8/5/2025	12:00 AM	1:00 AM	1:00	48.3	71.1	46.6	52.8	49.7	48.7	48.4	48.2	47.7	47.3	46.8	46.7	46.6
13	8/5/2025	1:00 AM	2:00 AM	1:00	47.6	61.4	46.2	50.5	49.8	48.9	48.5	48.3	47.6	47.1	46.6	46.5	46.3
14	8/5/2025	2:00 AM	3:00 AM	1:00	47.6	55.6	46.2	51.0	50.3	49.2	48.6	48.4	47.6	47.2	46.7	46.6	46.4
15	8/5/2025	3:00 AM	4:00 AM	1:00	48.3	56.9	46.2	51.8	51.1	49.9	49.2	49.0	48.4	48.0	47.1	46.9	46.4
16	8/5/2025	4:00 AM	5:00 AM	1:00	49.1	56.8	47.1	51.9	51.4	50.6	50.2	50.1	49.3	48.8	47.8	47.6	47.3
17	8/5/2025	5:00 AM	6:00 AM	1:00	49.6	59.0	48.0	53.0	51.6	50.8	50.5	50.4	49.7	49.1	48.5	48.4	48.2
18	8/5/2025	6:00 AM	7:00 AM	1:00	50.0	66.8	47.6	56.3	54.9	51.7	51.1	50.9	49.9	49.3	48.4	48.2	47.9
19	8/5/2025	7:00 AM	8:00 AM	1:00	50.4	60.2	48.5	54.3	53.0	51.8	51.4	51.2	50.5	50.0	49.3	49.1	48.9
20	8/5/2025	8:00 AM	9:00 AM	1:00	51.2	66.6	48.6	59.1	56.0	53.0	52.2	51.9	51.0	50.4	49.5	49.3	49.0
21	8/5/2025	9:00 AM	10:00 AM	1:00	51.3	62.9	48.6	55.5	54.4	53.0	52.5	52.3	51.5	51.0	49.7	49.4	49.0
22	8/5/2025	10:00 AM	11:00 AM	1:00	51.7	67.0	48.2	62.3	59.6	52.9	51.8	51.5	50.7	50.0	49.2	49.0	48.6
23	8/5/2025	11:00 AM	12:00 PM	1:00	50.8	69.4	47.2	58.0	56.6	54.1	52.5	51.9	50.5	49.5	48.3	48.0	47.5
24	8/5/2025	12:00 PM	1:00 PM	1:00	51.1	66.0	47.5	58.2	56.4	53.8	52.7	52.3	51.0	50.0	48.9	48.7	48.2

Project: FHS-08.0 Sonora
User: AC
Location: LT-2

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	55.0	76.8	48.4	63.7	61.0	57.6	55.8	55.2	52.3	50.9	49.6	49.3	48.7
2	8/5/2025	2:00 PM	3:00 PM	1:00	62.4	79.9	47.4	77.8	72.5	65.9	63.2	62.0	57.2	52.3	49.7	49.3	48.4
3	8/5/2025	3:00 PM	4:00 PM	1:00	69.2	82.2	50.0	78.4	77.9	75.8	74.6	74.0	70.2	61.4	52.9	51.9	50.8
4	8/5/2025	4:00 PM	5:00 PM	1:00	64.8	81.5	49.0	77.3	76.1	72.4	68.8	67.5	59.6	51.9	50.3	50.1	49.5
5	8/5/2025	5:00 PM	6:00 PM	1:00	56.7	74.2	49.5	65.9	64.6	62.2	60.8	60.0	56.2	53.0	50.9	50.5	50.0
6	8/5/2025	6:00 PM	7:00 PM	1:00	63.6	83.0	50.9	75.0	72.2	68.6	66.2	65.4	62.0	59.3	55.7	54.8	52.9
7	8/5/2025	7:00 PM	8:00 PM	1:00	60.7	78.0	51.1	70.0	67.9	65.4	64.1	63.5	60.7	57.9	54.4	53.8	52.7
8	8/5/2025	8:00 PM	9:00 PM	1:00	56.2	72.3	48.5	63.9	62.8	61.1	60.1	59.6	57.0	53.7	50.0	49.7	49.0
9	8/5/2025	9:00 PM	10:00 PM	1:00	51.4	68.6	48.0	60.1	57.6	54.5	52.5	51.9	50.4	49.6	48.7	48.6	48.3
10	8/5/2025	10:00 PM	11:00 PM	1:00	49.8	60.1	47.8	55.6	53.3	51.4	50.8	50.5	49.6	49.1	48.4	48.2	48.0
11	8/5/2025	11:00 PM	12:00 AM	1:00	49.0	58.1	46.9	53.5	52.4	50.9	50.3	50.1	49.0	48.4	47.5	47.3	47.0
12	8/6/2025	12:00 AM	1:00 AM	1:00	49.3	61.8	47.3	54.0	53.4	52.4	51.7	51.4	49.3	48.2	47.6	47.6	47.4
13	8/6/2025	1:00 AM	2:00 AM	1:00	48.9	60.1	47.2	51.6	50.8	50.0	49.7	49.7	49.0	48.4	47.8	47.6	47.4
14	8/6/2025	2:00 AM	3:00 AM	1:00	49.5	60.3	47.1	53.9	52.7	51.2	50.7	50.4	49.7	49.0	47.8	47.4	47.2
15	8/6/2025	3:00 AM	4:00 AM	1:00	49.0	55.2	47.2	51.8	51.2	50.6	50.2	50.0	49.3	48.7	47.8	47.5	47.3
16	8/6/2025	4:00 AM	5:00 AM	1:00	49.1	58.4	47.2	51.6	50.7	50.2	50.0	49.9	49.3	48.9	47.8	47.6	47.4
17	8/6/2025	5:00 AM	6:00 AM	1:00	50.8	62.1	48.9	53.6	53.0	52.1	51.8	51.7	51.0	50.5	49.6	49.5	49.2
18	8/6/2025	6:00 AM	7:00 AM	1:00	51.7	60.5	50.0	55.4	54.5	53.4	53.0	52.7	51.9	51.3	50.5	50.4	50.1
19	8/6/2025	7:00 AM	8:00 AM	1:00	53.8	67.2	50.3	63.9	62.4	55.7	54.2	53.8	52.7	52.2	51.4	51.2	50.8
20	8/6/2025	8:00 AM	9:00 AM	1:00	52.4	71.1	49.8	57.2	55.4	54.0	53.6	53.4	52.7	51.7	50.6	50.4	50.1
21	8/6/2025	9:00 AM	10:00 AM	1:00	50.8	61.4	48.7	56.9	53.9	52.4	51.9	51.7	50.8	50.3	49.5	49.3	49.1
22	8/6/2025	10:00 AM	11:00 AM	1:00	49.8	63.1	47.3	54.6	53.3	51.6	51.1	50.8	49.7	49.1	48.0	47.8	47.5
23	8/6/2025	11:00 AM	12:00 PM	1:00	49.0	61.1	46.5	53.4	51.9	50.8	50.2	49.9	49.1	48.4	47.5	47.3	46.9
24	8/6/2025	12:00 PM	1:00 PM	1:00	50.8	66.7	47.1	57.3	55.9	53.9	52.7	52.1	50.5	49.6	48.4	48.1	47.6

Project: FHS-08.0 Sonora
User: AC
Location: LT-3

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	44.7	56.9	42.3	50.1	48.7	47.1	46.4	46.0	44.7	43.9	43.1	42.9	42.6
2	8/4/2025	2:00 PM	3:00 PM	1:00	47.7	60.0	42.9	53.6	52.6	51.1	50.3	49.9	48.1	46.7	44.4	44.0	43.5
3	8/4/2025	3:00 PM	4:00 PM	1:00	46.2	56.0	43.0	50.9	49.8	48.8	48.1	47.8	46.8	45.6	43.9	43.7	43.3
4	8/4/2025	4:00 PM	5:00 PM	1:00	46.6	63.4	43.2	51.5	50.4	49.2	48.5	48.3	47.1	45.8	44.1	43.9	43.5
5	8/4/2025	5:00 PM	6:00 PM	1:00	49.2	63.1	44.5	57.3	55.4	52.9	51.8	51.2	49.0	47.7	46.1	45.7	45.1
6	8/4/2025	6:00 PM	7:00 PM	1:00	55.9	76.5	45.5	65.1	63.2	60.8	59.5	58.8	55.7	52.6	48.2	47.5	46.7
7	8/4/2025	7:00 PM	8:00 PM	1:00	55.7	70.8	47.2	64.5	63.0	60.6	59.2	58.6	55.7	53.2	50.1	49.5	48.6
8	8/4/2025	8:00 PM	9:00 PM	1:00	52.9	71.5	43.1	62.3	60.8	58.0	56.4	55.7	52.5	48.3	44.5	44.1	43.6
9	8/4/2025	9:00 PM	10:00 PM	1:00	46.1	63.7	43.1	52.6	48.9	47.5	47.0	46.7	45.8	45.0	44.0	43.7	43.4
10	8/4/2025	10:00 PM	11:00 PM	1:00	47.4	67.9	42.7	55.1	52.2	47.3	46.4	46.1	45.3	44.6	43.7	43.4	42.9
11	8/4/2025	11:00 PM	12:00 AM	1:00	44.2	56.4	42.4	47.8	46.7	45.7	45.2	45.0	44.2	43.6	43.0	42.9	42.6
12	8/5/2025	12:00 AM	1:00 AM	1:00	43.8	60.5	41.8	47.8	47.1	46.2	45.4	44.8	43.6	43.1	42.3	42.2	42.0
13	8/5/2025	1:00 AM	2:00 AM	1:00	47.4	52.3	42.2	49.0	48.7	48.2	48.0	48.0	47.7	47.4	46.9	46.6	42.8
14	8/5/2025	2:00 AM	3:00 AM	1:00	46.9	51.5	42.7	48.6	48.3	48.0	47.8	47.7	47.4	46.9	45.5	44.3	43.1
15	8/5/2025	3:00 AM	4:00 AM	1:00	46.9	55.1	43.0	49.3	48.4	47.9	47.7	47.7	47.4	46.9	45.2	44.8	43.9
16	8/5/2025	4:00 AM	5:00 AM	1:00	44.9	55.3	43.0	47.4	47.0	46.5	46.2	46.0	45.2	44.6	43.8	43.7	43.2
17	8/5/2025	5:00 AM	6:00 AM	1:00	46.2	60.0	43.8	50.2	48.7	47.9	47.6	47.4	46.4	45.7	44.5	44.3	44.1
18	8/5/2025	6:00 AM	7:00 AM	1:00	45.8	59.7	43.6	49.5	48.8	47.8	47.3	46.9	46.0	45.4	44.4	44.2	43.9
19	8/5/2025	7:00 AM	8:00 AM	1:00	46.5	55.6	44.7	50.0	49.1	48.3	47.8	47.6	46.7	46.1	45.4	45.3	45.1
20	8/5/2025	8:00 AM	9:00 AM	1:00	46.6	59.2	44.5	50.6	49.5	48.5	48.0	47.8	46.9	46.1	45.2	45.0	44.8
21	8/5/2025	9:00 AM	10:00 AM	1:00	46.2	53.8	43.9	49.9	49.2	48.1	47.5	47.3	46.5	45.9	45.0	44.7	44.3
22	8/5/2025	10:00 AM	11:00 AM	1:00	47.7	67.0	43.2	58.3	54.9	48.6	47.9	47.6	46.2	45.1	44.2	43.9	43.5
23	8/5/2025	11:00 AM	12:00 PM	1:00	44.6	59.9	42.3	50.6	48.6	46.9	46.2	45.8	44.6	43.6	42.7	42.6	42.4
24	8/5/2025	12:00 PM	1:00 PM	1:00	44.5	65.1	42.2	47.8	47.3	46.2	45.7	45.5	44.6	43.9	43.0	42.8	42.5

Project: FHS-08.0 Sonora
User: AC
Location: LT-3

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	49.9	76.7	42.5	54.2	48.0	46.4	45.9	45.6	44.7	44.0	43.2	43.1	42.8
2	8/5/2025	2:00 PM	3:00 PM	1:00	50.8	68.6	42.4	64.6	61.0	54.7	52.2	51.3	47.9	45.0	43.3	43.0	42.7
3	8/5/2025	3:00 PM	4:00 PM	1:00	58.6	72.7	44.4	67.2	66.3	65.0	64.0	63.5	59.3	52.1	46.7	45.9	45.0
4	8/5/2025	4:00 PM	5:00 PM	1:00	54.7	71.6	43.7	66.6	65.1	61.5	59.0	57.8	51.2	46.8	45.2	44.9	44.4
5	8/5/2025	5:00 PM	6:00 PM	1:00	50.9	69.4	44.2	61.4	58.7	55.1	53.4	52.7	49.5	47.4	45.5	45.0	44.5
6	8/5/2025	6:00 PM	7:00 PM	1:00	57.6	77.3	47.3	68.3	66.4	62.9	61.1	60.1	56.5	53.5	50.1	49.5	48.5
7	8/5/2025	7:00 PM	8:00 PM	1:00	57.6	82.9	45.9	66.0	63.5	60.9	59.5	58.9	55.7	53.0	49.7	49.0	47.9
8	8/5/2025	8:00 PM	9:00 PM	1:00	51.2	64.1	44.0	58.5	57.4	55.8	55.0	54.5	52.0	49.3	45.6	45.1	44.4
9	8/5/2025	9:00 PM	10:00 PM	1:00	46.6	62.6	43.5	53.5	51.3	49.1	48.2	47.8	46.4	45.5	44.5	44.2	43.9
10	8/5/2025	10:00 PM	11:00 PM	1:00	46.2	57.6	42.6	52.3	50.6	49.6	49.2	48.8	46.1	45.2	43.9	43.5	43.0
11	8/5/2025	11:00 PM	12:00 AM	1:00	45.7	58.4	42.5	49.6	48.9	47.7	47.2	47.0	46.3	45.3	43.5	43.2	42.8
12	8/6/2025	12:00 AM	1:00 AM	1:00	45.8	52.1	42.4	49.8	49.4	48.5	47.9	47.7	46.4	45.3	43.4	43.2	42.8
13	8/6/2025	1:00 AM	2:00 AM	1:00	44.5	56.2	42.1	49.0	47.7	46.1	45.5	45.4	44.7	43.9	42.8	42.6	42.4
14	8/6/2025	2:00 AM	3:00 AM	1:00	45.6	56.0	44.0	49.9	47.9	46.6	46.3	46.3	45.8	45.4	44.6	44.3	44.1
15	8/6/2025	3:00 AM	4:00 AM	1:00	45.9	62.3	43.6	49.3	48.3	47.2	46.8	46.7	46.1	45.5	44.5	44.2	43.8
16	8/6/2025	4:00 AM	5:00 AM	1:00	45.3	55.9	42.5	48.2	47.4	46.7	46.4	46.3	45.7	45.2	43.7	43.1	42.9
17	8/6/2025	5:00 AM	6:00 AM	1:00	46.2	54.0	44.0	49.8	48.8	47.9	47.4	47.2	46.5	45.9	44.8	44.6	44.2
18	8/6/2025	6:00 AM	7:00 AM	1:00	48.2	54.6	45.9	52.3	51.3	50.1	49.6	49.4	48.4	47.8	46.9	46.6	46.3
19	8/6/2025	7:00 AM	8:00 AM	1:00	49.4	64.1	46.6	55.9	54.3	52.1	51.1	50.6	49.2	48.3	47.4	47.2	46.9
20	8/6/2025	8:00 AM	9:00 AM	1:00	47.6	54.4	45.1	51.0	50.4	49.7	49.4	49.2	48.3	47.0	45.8	45.6	45.3
21	8/6/2025	9:00 AM	10:00 AM	1:00	47.6	59.3	44.2	55.4	53.5	50.6	49.5	49.1	47.5	46.3	45.3	45.1	44.6
22	8/6/2025	10:00 AM	11:00 AM	1:00	46.2	58.8	42.0	54.3	52.8	50.6	49.3	48.6	46.2	44.1	42.6	42.5	42.3
23	8/6/2025	11:00 AM	12:00 PM	1:00	44.0	53.0	41.8	48.6	47.1	45.8	45.3	45.1	44.1	43.4	42.4	42.3	42.0
24	8/6/2025	12:00 PM	1:00 PM	1:00	44.9	58.5	41.9	51.5	49.7	47.6	46.7	46.2	44.8	43.9	42.8	42.5	42.2

Project: FHS-08.0 Sonora
User: AC
Location: LT-5

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	65.2	91.9	39.5	79.4	72.2	58.7	49.8	47.4	43.6	41.7	40.5	40.3	39.9
2	8/4/2025	2:00 PM	3:00 PM	1:00	44.8	61.8	40.2	54.3	51.1	47.8	46.7	46.2	44.3	42.9	41.3	40.9	40.5
3	8/4/2025	3:00 PM	4:00 PM	1:00	43.3	59.8	40.0	52.8	50.0	45.9	44.6	44.2	42.7	41.6	40.5	40.3	40.2
4	8/4/2025	4:00 PM	5:00 PM	1:00	42.5	54.0	40.1	46.9	45.8	44.7	44.1	43.9	42.7	41.8	40.7	40.5	40.2
5	8/4/2025	5:00 PM	6:00 PM	1:00	44.3	59.1	40.3	53.7	51.1	47.5	46.1	45.6	43.6	42.6	41.5	41.2	40.8
6	8/4/2025	6:00 PM	7:00 PM	1:00	49.4	67.7	41.0	58.3	56.4	54.1	52.8	52.2	49.4	46.8	43.2	42.6	41.9
7	8/4/2025	7:00 PM	8:00 PM	1:00	52.0	73.1	42.8	61.5	58.9	56.2	54.7	54.1	50.9	48.2	45.1	44.5	43.6
8	8/4/2025	8:00 PM	9:00 PM	1:00	47.8	66.1	41.5	59.0	55.6	51.5	49.8	49.1	46.6	44.6	43.3	43.1	42.6
9	8/4/2025	9:00 PM	10:00 PM	1:00	43.3	58.3	40.4	48.9	46.1	44.8	44.4	44.3	43.5	42.4	41.1	40.9	40.7
10	8/4/2025	10:00 PM	11:00 PM	1:00	45.0	64.0	40.7	52.8	48.8	45.4	45.1	45.0	44.4	42.5	41.4	41.2	40.9
11	8/4/2025	11:00 PM	12:00 AM	1:00	44.2	52.7	40.3	46.9	46.6	46.3	46.2	46.2	45.3	43.5	41.7	41.5	40.9
12	8/5/2025	12:00 AM	1:00 AM	1:00	42.2	50.3	39.6	44.1	44.0	43.5	43.4	43.3	43.0	41.8	40.7	40.4	39.8
13	8/5/2025	1:00 AM	2:00 AM	1:00	42.8	45.9	40.1	45.2	45.1	44.9	44.8	44.8	42.8	42.2	41.6	41.5	40.5
14	8/5/2025	2:00 AM	3:00 AM	1:00	42.6	50.1	39.8	45.5	45.1	44.7	44.4	44.3	43.0	42.2	40.8	40.5	40.2
15	8/5/2025	3:00 AM	4:00 AM	1:00	42.2	51.8	40.1	44.8	44.0	43.3	43.1	43.0	42.6	42.0	40.8	40.5	40.2
16	8/5/2025	4:00 AM	5:00 AM	1:00	42.2	47.7	40.0	44.1	43.8	43.3	43.1	42.9	42.4	42.0	41.2	41.0	40.4
17	8/5/2025	5:00 AM	6:00 AM	1:00	42.9	53.3	41.0	48.0	46.7	45.2	44.5	44.1	42.9	42.3	41.6	41.4	41.2
18	8/5/2025	6:00 AM	7:00 AM	1:00	43.9	59.6	41.0	51.1	49.3	46.7	45.3	44.8	43.6	42.8	41.8	41.6	41.2
19	8/5/2025	7:00 AM	8:00 AM	1:00	44.1	56.0	42.2	50.0	48.1	46.0	45.3	45.1	44.1	43.4	42.7	42.5	42.3
20	8/5/2025	8:00 AM	9:00 AM	1:00	44.1	58.9	41.8	50.9	49.7	47.7	46.0	45.4	43.7	43.0	42.2	42.1	42.0
21	8/5/2025	9:00 AM	10:00 AM	1:00	44.3	58.8	41.5	50.8	49.5	47.3	46.0	45.6	44.2	43.3	42.4	42.1	41.8
22	8/5/2025	10:00 AM	11:00 AM	1:00	45.1	63.3	40.4	57.6	53.6	45.8	44.6	44.2	43.0	42.2	41.3	41.1	40.7
23	8/5/2025	11:00 AM	12:00 PM	1:00	44.2	61.9	39.5	54.4	52.3	49.0	46.9	46.0	42.7	41.3	40.2	40.0	39.8
24	8/5/2025	12:00 PM	1:00 PM	1:00	44.1	61.9	39.5	54.2	52.3	48.6	46.6	45.5	42.5	41.2	40.2	40.0	39.8

Project: FHS-08.0 Sonora
User: AC
Location: LT-5

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	48.5	74.4	39.7	57.2	52.3	45.8	44.6	44.1	42.3	41.3	40.4	40.2	40.0
2	8/5/2025	2:00 PM	3:00 PM	1:00	46.5	65.4	39.7	58.6	56.3	51.0	49.2	48.2	44.9	42.6	40.5	40.3	40.0
3	8/5/2025	3:00 PM	4:00 PM	1:00	52.7	65.7	40.9	61.4	60.3	58.8	57.8	57.3	53.5	46.8	42.4	41.9	41.3
4	8/5/2025	4:00 PM	5:00 PM	1:00	49.7	66.1	40.6	60.6	59.6	56.5	54.2	53.1	47.6	43.2	41.4	41.2	40.8
5	8/5/2025	5:00 PM	6:00 PM	1:00	44.1	61.4	40.6	52.5	50.2	47.1	46.0	45.5	43.7	42.5	41.3	41.0	40.7
6	8/5/2025	6:00 PM	7:00 PM	1:00	51.2	69.2	42.4	60.6	58.4	55.7	54.2	53.5	50.2	47.5	44.5	44.1	43.4
7	8/5/2025	7:00 PM	8:00 PM	1:00	49.7	68.3	41.7	59.4	57.5	55.0	53.3	52.4	48.9	46.5	43.7	43.3	42.6
8	8/5/2025	8:00 PM	9:00 PM	1:00	46.2	58.9	40.4	52.5	51.3	49.9	49.1	48.8	47.1	45.3	41.4	41.2	40.7
9	8/5/2025	9:00 PM	10:00 PM	1:00	43.3	59.8	40.4	50.8	48.4	45.6	44.9	44.6	43.3	42.0	41.0	40.8	40.6
10	8/5/2025	10:00 PM	11:00 PM	1:00	43.4	52.2	40.3	47.0	46.3	45.1	44.7	44.4	43.8	43.3	41.2	40.8	40.4
11	8/5/2025	11:00 PM	12:00 AM	1:00	42.0	50.5	40.2	44.9	44.4	43.7	43.3	43.1	42.3	41.5	40.7	40.5	40.3
12	8/6/2025	12:00 AM	1:00 AM	1:00	42.5	50.8	40.4	45.9	45.3	44.4	43.8	43.5	42.7	42.1	41.3	41.1	40.6
13	8/6/2025	1:00 AM	2:00 AM	1:00	41.5	53.0	40.2	44.1	43.7	42.9	42.4	42.2	41.6	41.2	40.6	40.5	40.3
14	8/6/2025	2:00 AM	3:00 AM	1:00	41.5	52.7	39.8	45.7	44.1	42.8	42.4	42.2	41.5	41.0	40.5	40.4	40.2
15	8/6/2025	3:00 AM	4:00 AM	1:00	43.1	59.1	41.4	45.7	44.7	43.9	43.6	43.5	43.0	42.7	42.0	41.8	41.6
16	8/6/2025	4:00 AM	5:00 AM	1:00	43.1	53.3	40.7	45.4	44.8	44.3	44.0	43.8	43.4	43.0	42.2	41.9	41.6
17	8/6/2025	5:00 AM	6:00 AM	1:00	43.4	48.1	41.6	46.3	45.5	44.8	44.5	44.4	43.8	43.3	42.3	42.0	41.7
18	8/6/2025	6:00 AM	7:00 AM	1:00	45.4	58.3	42.7	52.5	50.7	48.1	47.1	46.6	45.1	44.4	43.6	43.4	43.0
19	8/6/2025	7:00 AM	8:00 AM	1:00	45.9	61.2	42.8	52.9	51.6	48.8	47.6	47.2	45.7	44.7	43.6	43.4	43.1
20	8/6/2025	8:00 AM	9:00 AM	1:00	44.6	58.9	41.7	50.5	48.9	47.1	46.4	46.0	45.0	43.8	42.5	42.3	42.0
21	8/6/2025	9:00 AM	10:00 AM	1:00	48.9	62.9	41.2	57.8	56.8	55.3	54.1	53.4	48.6	44.1	41.9	41.8	41.5
22	8/6/2025	10:00 AM	11:00 AM	1:00	45.9	60.1	39.4	55.7	54.9	52.8	50.9	49.9	43.7	41.0	40.0	39.9	39.6
23	8/6/2025	11:00 AM	12:00 PM	1:00	41.2	54.2	39.2	47.8	46.2	43.7	42.7	42.2	40.8	40.2	39.6	39.5	39.3
24	8/6/2025	12:00 PM	1:00 PM	1:00	43.9	61.5	39.5	53.1	51.6	49.1	47.6	46.7	42.7	41.0	39.9	39.8	39.6

Project: FHS-08.0 Sonora
User: AC
Location: LT-6

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	70.5	95.9	43.6	84.3	81.1	72.6	62.1	54.8	47.2	45.7	44.4	44.2	43.9
2	8/4/2025	2:00 PM	3:00 PM	1:00	47.2	60.4	44.0	53.0	51.5	49.8	48.9	48.6	47.5	46.4	45.1	44.8	44.4
3	8/4/2025	3:00 PM	4:00 PM	1:00	47.8	67.6	43.6	58.6	54.8	49.7	48.5	48.0	46.4	45.4	44.3	44.1	43.8
4	8/4/2025	4:00 PM	5:00 PM	1:00	46.3	65.5	43.7	50.6	49.5	48.3	47.6	47.3	46.2	45.4	44.4	44.1	43.8
5	8/4/2025	5:00 PM	6:00 PM	1:00	47.8	63.2	43.1	56.8	54.8	52.0	50.4	49.7	47.2	45.9	44.5	44.3	43.7
6	8/4/2025	6:00 PM	7:00 PM	1:00	51.1	74.7	44.0	60.6	57.5	53.7	52.2	51.5	49.2	47.7	45.8	45.3	44.7
7	8/4/2025	7:00 PM	8:00 PM	1:00	54.7	76.0	45.0	67.0	64.4	59.1	56.3	55.1	51.1	48.8	46.7	46.3	45.6
8	8/4/2025	8:00 PM	9:00 PM	1:00	48.9	68.2	43.3	60.0	55.9	52.2	50.9	50.3	48.1	46.0	44.2	44.0	43.6
9	8/4/2025	9:00 PM	10:00 PM	1:00	46.6	65.9	43.3	55.2	51.3	48.3	47.5	47.2	46.0	45.1	44.2	44.0	43.7
10	8/4/2025	10:00 PM	11:00 PM	1:00	47.7	69.3	43.2	57.2	52.9	47.4	46.4	46.1	45.1	44.6	43.9	43.7	43.4
11	8/4/2025	11:00 PM	12:00 AM	1:00	44.2	60.2	42.6	47.1	46.4	45.7	45.3	45.0	44.1	43.5	43.0	42.9	42.7
12	8/5/2025	12:00 AM	1:00 AM	1:00	43.7	58.7	42.4	47.2	45.8	45.0	44.5	44.3	43.6	43.2	42.7	42.7	42.5
13	8/5/2025	1:00 AM	2:00 AM	1:00	43.4	52.0	42.4	46.0	45.2	44.4	44.0	43.8	43.3	43.0	42.7	42.6	42.4
14	8/5/2025	2:00 AM	3:00 AM	1:00	44.2	60.3	42.4	47.2	46.1	44.9	44.7	44.6	44.1	43.7	42.9	42.7	42.5
15	8/5/2025	3:00 AM	4:00 AM	1:00	44.3	60.6	42.5	47.2	45.8	45.0	44.7	44.6	44.2	43.8	43.1	43.0	42.7
16	8/5/2025	4:00 AM	5:00 AM	1:00	44.7	51.8	42.9	48.1	47.2	46.0	45.7	45.5	44.8	44.3	43.5	43.4	43.1
17	8/5/2025	5:00 AM	6:00 AM	1:00	45.5	55.2	43.9	49.3	48.1	47.1	46.6	46.4	45.5	45.0	44.4	44.3	44.1
18	8/5/2025	6:00 AM	7:00 AM	1:00	46.2	59.0	44.0	49.8	48.9	47.9	47.4	47.2	46.3	45.6	44.8	44.5	44.2
19	8/5/2025	7:00 AM	8:00 AM	1:00	48.2	69.9	44.9	56.4	53.5	50.0	48.7	48.3	47.0	46.2	45.4	45.3	45.1
20	8/5/2025	8:00 AM	9:00 AM	1:00	56.7	83.9	44.6	67.5	64.7	59.7	55.8	54.2	47.9	46.1	45.2	45.0	44.8
21	8/5/2025	9:00 AM	10:00 AM	1:00	48.8	67.2	44.5	58.8	56.2	51.7	49.7	49.0	47.2	46.4	45.5	45.2	44.8
22	8/5/2025	10:00 AM	11:00 AM	1:00	48.5	68.6	43.9	60.7	57.1	49.7	48.0	47.5	46.0	45.3	44.6	44.5	44.2
23	8/5/2025	11:00 AM	12:00 PM	1:00	51.2	64.6	43.4	63.6	62.8	54.7	53.8	53.5	51.1	45.3	43.9	43.8	43.5
24	8/5/2025	12:00 PM	1:00 PM	1:00	52.6	69.5	43.4	65.5	64.9	57.0	52.7	51.2	47.1	45.1	43.9	43.7	43.5

Project: FHS-08.0 Sonora
User: AC
Location: LT-6

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	52.6	77.7	43.4	64.5	56.3	50.2	48.7	48.2	46.1	44.9	44.0	43.8	43.6
2	8/5/2025	2:00 PM	3:00 PM	1:00	49.7	66.1	43.4	60.0	58.7	56.2	53.5	52.1	47.7	45.7	44.0	43.8	43.6
3	8/5/2025	3:00 PM	4:00 PM	1:00	52.7	64.4	44.2	60.4	59.7	58.6	57.6	57.0	53.6	48.9	45.5	45.1	44.7
4	8/5/2025	4:00 PM	5:00 PM	1:00	50.5	73.4	43.3	60.5	59.1	56.6	54.1	53.0	48.3	45.8	44.4	44.2	43.6
5	8/5/2025	5:00 PM	6:00 PM	1:00	47.6	66.0	43.4	56.6	53.7	49.9	48.8	48.4	46.8	45.7	44.3	44.0	43.6
6	8/5/2025	6:00 PM	7:00 PM	1:00	55.3	71.8	45.2	65.3	63.1	60.4	58.8	58.0	54.5	51.5	48.0	47.3	45.9
7	8/5/2025	7:00 PM	8:00 PM	1:00	50.4	70.8	44.5	60.0	57.8	54.4	52.8	52.1	49.6	47.6	46.0	45.7	45.2
8	8/5/2025	8:00 PM	9:00 PM	1:00	47.8	59.3	43.7	53.4	52.5	51.1	50.2	49.8	48.2	47.0	45.0	44.6	44.0
9	8/5/2025	9:00 PM	10:00 PM	1:00	46.2	62.3	43.5	52.7	50.9	48.8	47.9	47.4	45.8	44.8	44.0	43.9	43.6
10	8/5/2025	10:00 PM	11:00 PM	1:00	45.4	58.1	43.0	50.4	49.0	47.4	46.7	46.4	45.3	44.6	43.6	43.4	43.2
11	8/5/2025	11:00 PM	12:00 AM	1:00	44.6	53.0	43.0	48.1	47.7	46.8	46.3	46.0	44.5	43.9	43.3	43.2	43.0
12	8/6/2025	12:00 AM	1:00 AM	1:00	44.1	54.7	42.4	48.2	47.7	46.2	45.5	45.2	44.1	43.3	42.8	42.7	42.5
13	8/6/2025	1:00 AM	2:00 AM	1:00	43.4	52.7	42.2	46.6	46.1	44.8	44.2	44.0	43.5	43.0	42.5	42.4	42.3
14	8/6/2025	2:00 AM	3:00 AM	1:00	44.4	62.6	42.3	49.7	47.5	46.0	45.4	45.1	44.1	43.6	43.1	42.9	42.6
15	8/6/2025	3:00 AM	4:00 AM	1:00	45.2	66.0	42.3	49.9	47.8	46.0	45.5	45.2	44.6	44.1	43.2	42.7	42.4
16	8/6/2025	4:00 AM	5:00 AM	1:00	45.2	59.4	43.0	50.1	48.1	46.4	46.0	45.9	45.4	44.6	43.6	43.3	43.1
17	8/6/2025	5:00 AM	6:00 AM	1:00	46.4	55.1	44.0	50.1	49.0	48.1	47.7	47.4	46.7	45.9	44.8	44.6	44.3
18	8/6/2025	6:00 AM	7:00 AM	1:00	51.2	75.5	45.5	61.2	58.4	54.2	52.0	51.2	48.6	47.3	46.3	46.1	45.7
19	8/6/2025	7:00 AM	8:00 AM	1:00	60.2	91.6	45.7	69.8	66.5	60.3	57.5	56.2	51.1	48.3	46.4	46.2	45.9
20	8/6/2025	8:00 AM	9:00 AM	1:00	49.8	68.5	44.1	59.3	57.6	54.8	52.9	51.9	48.2	46.7	45.0	44.7	44.4
21	8/6/2025	9:00 AM	10:00 AM	1:00	47.0	61.6	43.9	55.2	53.2	49.9	48.7	48.2	46.6	45.6	44.6	44.4	44.2
22	8/6/2025	10:00 AM	11:00 AM	1:00	45.6	61.9	43.0	52.1	49.9	48.0	47.2	46.8	45.3	44.2	43.4	43.2	43.1
23	8/6/2025	11:00 AM	12:00 PM	1:00	52.8	74.2	43.0	65.3	62.8	58.2	55.3	53.9	49.6	46.4	43.6	43.4	43.1
24	8/6/2025	12:00 PM	1:00 PM	1:00	50.5	71.2	43.2	61.3	59.7	56.4	54.2	53.1	48.6	45.3	43.8	43.6	43.3

Project: FHS-08.0 Sonora
User: AC
Location: LT-6

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/4/2025	1:00 PM	2:00 PM	1:00	72.8	99.0	43.2	86.1	82.7	74.7	65.1	60.7	48.5	45.5	44.1	43.9	43.5
2	8/4/2025	2:00 PM	3:00 PM	1:00	47.8	58.2	44.0	52.3	51.6	50.7	50.1	49.8	48.5	47.2	45.1	44.8	44.3
3	8/4/2025	3:00 PM	4:00 PM	1:00	47.2	64.8	43.5	52.0	51.0	49.8	49.2	48.9	47.7	46.5	44.7	44.4	43.9
4	8/4/2025	4:00 PM	5:00 PM	1:00	50.8	75.2	43.4	59.8	55.0	51.3	50.3	49.9	48.3	46.8	44.8	44.5	43.9
5	8/4/2025	5:00 PM	6:00 PM	1:00	48.8	66.4	44.5	58.6	55.9	51.8	50.4	49.9	48.1	47.0	45.5	45.2	44.7
6	8/4/2025	6:00 PM	7:00 PM	1:00	51.5	68.8	45.5	60.4	58.0	55.1	54.0	53.5	51.2	49.6	47.6	47.1	46.4
7	8/4/2025	7:00 PM	8:00 PM	1:00	53.4	71.1	46.2	62.9	60.8	57.5	55.9	55.2	52.7	50.8	48.6	48.2	47.5
8	8/4/2025	8:00 PM	9:00 PM	1:00	55.1	82.0	44.1	63.2	61.7	59.1	57.3	56.4	52.8	48.6	45.6	45.3	44.7
9	8/4/2025	9:00 PM	10:00 PM	1:00	47.2	61.0	44.2	52.0	50.1	48.7	48.2	48.0	47.3	46.5	45.3	45.0	44.6
10	8/4/2025	10:00 PM	11:00 PM	1:00	49.8	73.8	43.8	57.0	51.8	48.2	47.2	46.9	46.0	45.5	44.6	44.3	44.1
11	8/4/2025	11:00 PM	12:00 AM	1:00	45.1	55.7	43.0	48.6	47.2	46.4	46.0	45.8	45.1	44.6	43.9	43.7	43.4
12	8/5/2025	12:00 AM	1:00 AM	1:00	44.5	56.7	42.7	47.1	46.2	45.7	45.5	45.4	45.0	44.3	43.1	43.0	42.8
13	8/5/2025	1:00 AM	2:00 AM	1:00	45.1	50.8	43.2	47.2	46.7	46.2	45.9	45.8	45.4	44.9	43.7	43.6	43.4
14	8/5/2025	2:00 AM	3:00 AM	1:00	45.4	54.6	43.1	49.5	47.3	46.6	46.3	46.2	45.7	44.9	43.8	43.6	43.4
15	8/5/2025	3:00 AM	4:00 AM	1:00	45.5	53.3	43.4	48.5	47.6	46.8	46.5	46.4	45.9	45.4	44.4	44.1	43.6
16	8/5/2025	4:00 AM	5:00 AM	1:00	46.2	52.9	44.3	49.4	48.8	47.9	47.4	47.1	46.4	45.9	45.0	44.8	44.6
17	8/5/2025	5:00 AM	6:00 AM	1:00	47.5	62.0	45.4	51.9	50.5	48.9	48.4	48.2	47.5	47.0	46.1	45.9	45.6
18	8/5/2025	6:00 AM	7:00 AM	1:00	48.1	56.8	45.4	51.5	50.6	49.8	49.4	49.2	48.4	47.8	46.7	46.3	45.9
19	8/5/2025	7:00 AM	8:00 AM	1:00	50.1	71.5	47.0	55.6	53.1	51.3	50.5	50.3	49.3	48.7	47.9	47.7	47.4
20	8/5/2025	8:00 AM	9:00 AM	1:00	50.8	70.2	46.8	60.5	56.9	52.4	51.5	51.1	49.8	49.0	47.9	47.6	47.2
21	8/5/2025	9:00 AM	10:00 AM	1:00	49.6	59.8	46.5	55.8	54.3	52.4	51.6	51.2	49.7	48.7	47.7	47.5	47.2
22	8/5/2025	10:00 AM	11:00 AM	1:00	50.5	73.3	45.3	60.9	56.6	50.9	49.9	49.5	48.4	47.5	46.4	46.1	45.7
23	8/5/2025	11:00 AM	12:00 PM	1:00	46.7	58.4	43.9	51.6	50.8	49.3	48.4	48.1	46.9	46.0	44.8	44.6	44.1
24	8/5/2025	12:00 PM	1:00 PM	1:00	46.4	55.4	43.6	51.7	51.1	49.2	48.2	47.8	46.6	45.7	44.5	44.3	43.9

Project: FHS-08.0 Sonora
User: AC
Location: LT-6

No.	Start Date	Start Time	End Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_2	L_5	L_8	L_{10}	L_{25}	L_{50}	L_{90}	L_{95}	L_{99}
1	8/5/2025	1:00 PM	2:00 PM	1:00	52.5	78.5	43.5	55.7	50.3	48.6	48.1	47.8	46.7	45.6	44.4	44.1	43.8
2	8/5/2025	2:00 PM	3:00 PM	1:00	48.0	60.7	43.3	58.7	56.7	51.4	49.9	49.4	47.5	45.9	44.0	43.8	43.6
3	8/5/2025	3:00 PM	4:00 PM	1:00	52.0	62.8	44.5	60.8	59.1	57.0	56.0	55.5	52.4	49.4	46.5	46.0	45.3
4	8/5/2025	4:00 PM	5:00 PM	1:00	49.1	60.9	43.5	57.9	56.9	54.7	52.7	51.7	48.2	46.6	45.1	44.8	44.2
5	8/5/2025	5:00 PM	6:00 PM	1:00	48.6	63.1	43.6	56.6	54.6	52.2	51.2	50.7	48.8	47.1	44.7	44.4	44.0
6	8/5/2025	6:00 PM	7:00 PM	1:00	59.0	73.7	47.5	68.5	67.1	64.2	62.8	62.1	59.0	56.1	51.2	50.2	49.0
7	8/5/2025	7:00 PM	8:00 PM	1:00	54.1	74.6	46.2	63.2	61.4	59.0	57.7	57.0	53.5	50.9	48.3	47.8	47.1
8	8/5/2025	8:00 PM	9:00 PM	1:00	52.7	68.7	46.2	59.9	58.5	56.4	55.3	54.9	52.9	51.3	48.9	48.2	47.0
9	8/5/2025	9:00 PM	10:00 PM	1:00	50.2	62.9	45.1	55.6	54.4	53.1	52.4	52.1	50.8	49.6	47.0	46.4	45.8
10	8/5/2025	10:00 PM	11:00 PM	1:00	47.2	56.1	44.4	52.9	51.4	49.4	48.7	48.4	47.3	46.6	45.4	45.1	44.6
11	8/5/2025	11:00 PM	12:00 AM	1:00	46.6	64.3	43.5	51.7	51.0	50.0	49.1	48.5	46.7	45.5	44.3	44.1	43.8
12	8/6/2025	12:00 AM	1:00 AM	1:00	45.8	53.7	42.7	51.6	50.9	49.6	49.0	48.6	46.2	44.3	43.4	43.3	43.0
13	8/6/2025	1:00 AM	2:00 AM	1:00	44.1	51.3	42.7	46.5	46.1	45.5	45.1	44.9	44.2	43.7	43.1	43.0	42.9
14	8/6/2025	2:00 AM	3:00 AM	1:00	45.8	59.2	43.8	52.6	50.5	48.0	46.8	46.4	45.5	45.0	44.4	44.3	44.1
15	8/6/2025	3:00 AM	4:00 AM	1:00	47.0	58.7	44.7	51.7	50.1	48.7	48.2	48.0	47.1	46.6	45.6	45.3	44.9
16	8/6/2025	4:00 AM	5:00 AM	1:00	46.7	59.1	44.3	52.7	49.6	48.1	47.7	47.4	46.8	46.3	45.5	45.3	44.7
17	8/6/2025	5:00 AM	6:00 AM	1:00	48.2	55.7	45.7	51.5	50.7	49.8	49.5	49.3	48.7	48.0	46.6	46.3	46.0
18	8/6/2025	6:00 AM	7:00 AM	1:00	50.2	61.2	47.4	54.9	53.7	52.3	51.6	51.3	50.3	49.6	48.8	48.5	48.1
19	8/6/2025	7:00 AM	8:00 AM	1:00	51.1	65.0	48.2	56.4	54.9	53.4	52.5	52.2	51.1	50.4	49.6	49.4	49.0
20	8/6/2025	8:00 AM	9:00 AM	1:00	51.0	71.2	46.2	59.1	55.7	52.8	51.9	51.6	50.6	48.9	47.5	47.2	46.8
21	8/6/2025	9:00 AM	10:00 AM	1:00	48.5	71.3	45.1	53.2	52.1	50.5	49.8	49.5	48.4	47.6	46.2	46.0	45.5
22	8/6/2025	10:00 AM	11:00 AM	1:00	48.2	74.3	43.4	57.6	54.4	50.2	48.7	48.3	46.8	45.6	44.1	43.9	43.6
23	8/6/2025	11:00 AM	12:00 PM	1:00	51.5	73.5	42.8	66.2	59.1	52.2	49.2	48.5	46.3	44.9	43.7	43.5	43.2
24	8/6/2025	12:00 PM	1:00 PM	1:00	45.9	56.6	42.9	52.7	51.4	48.9	47.7	47.1	45.9	45.1	43.7	43.6	43.2

Elev **95** ft, **33.93** °N, **117.94** °W

ErnaStation - KCALAHAB65

FORECAST FOR LA HABRA, CA (/WEATHER/US/CA/LA-HABRA/KCALAHAB65)

We're building a brand-new Weather Underground (https://preview.wunderground.com/) — be among the first to check it out! X

Station Summary

Online(updated 25 seconds ago)

CURRENT CONDITIONS

68.2 °F

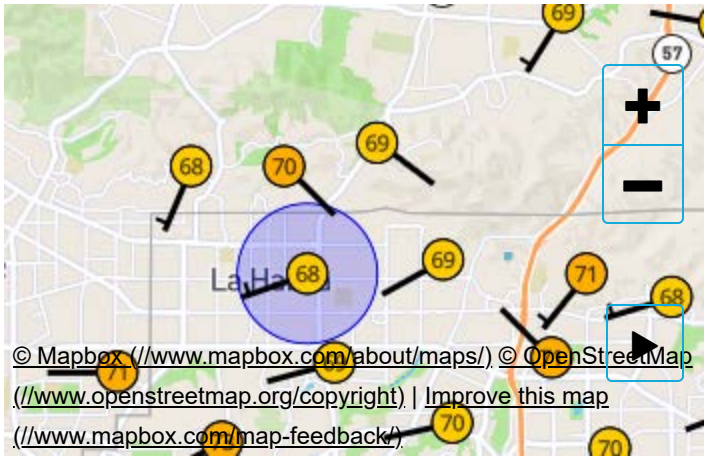
Feels Like
68.2 °

SSE

WIND & GUST
3.8 / **4.5** mph

DEWPOINT	PRECIP RATE
52.0 ° F	**0.00** in/hr
PRESSURE	HUMIDITY
29.72 in	**56** %
PRECIP ACCUM	UV
0.00 in	--

MAP



lat=33.942333133139556&lon=-117.90049387882732&zo

PWS CURRENT CONDITIONS

TEMPERATURE

CURRENT
68°

DEWPOINT
52.0 °F

HUMIDITY
56 %

WIND

3.8

WIND
FROM
SSE

GUST
4.5 mph

PRESSURE

CURRENT
29.72 In

PRECIPITATION



PRECIP
RATE
0.00 in/hr

PRECIP
TOTAL
0.00 in

UV



Weather History for KCALAHAB65

Daily Mode | August | 5 | 2025

Previous **View** Next

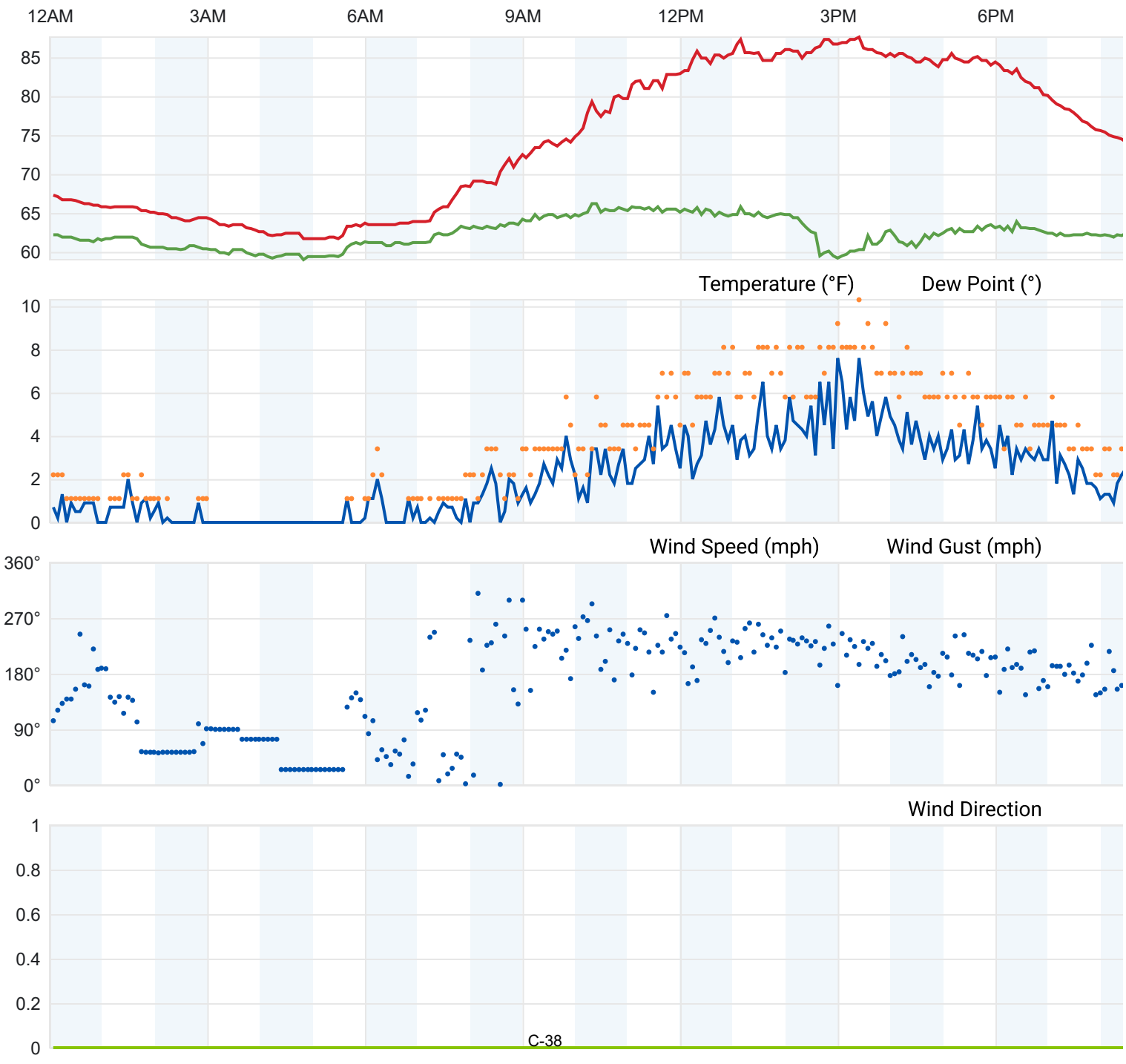
Summary
August 5, 2025

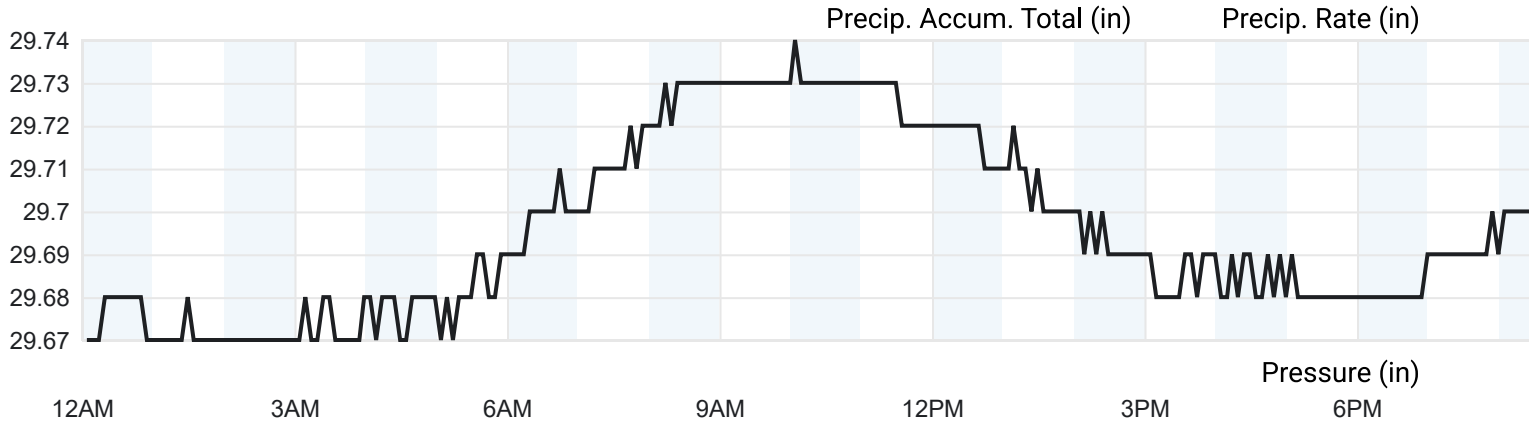
	High	Low	Average
Temperature	**87.6** °F	**61.3** °F	**73.8** °F
Dew Point	**66.2** °F	**57.7** °F	**62.3** °F
Humidity	**92** %	**38** %	**70** %
Precipitation	**0.00** in	--	--

	High	Low	Average
Wind Speed	**7.6** mph	**0.0** mph	**1.2** mph
Wind Gust	**10.3** mph	--	**2.6** mph
Wind Direction	**--**	**--**	**South**
Pressure	**29.74** in	**29.66** in	**--**

Graph | Table

August 5, 2025





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Elev **95** ft, **33.93** °N, **117.94** °W

ErnaStation - KCALAHAB65

FORECAST FOR LA HABRA, CA (/WEATHER/US/CA/LA-HABRA/KCALAHAB65)

We're building a brand-new Weather Underground (https://preview.wunderground.com/) — be among the first to check it out! X

Station Summary

Online(updated 40 seconds ago)

CURRENT CONDITIONS

68.2 °F

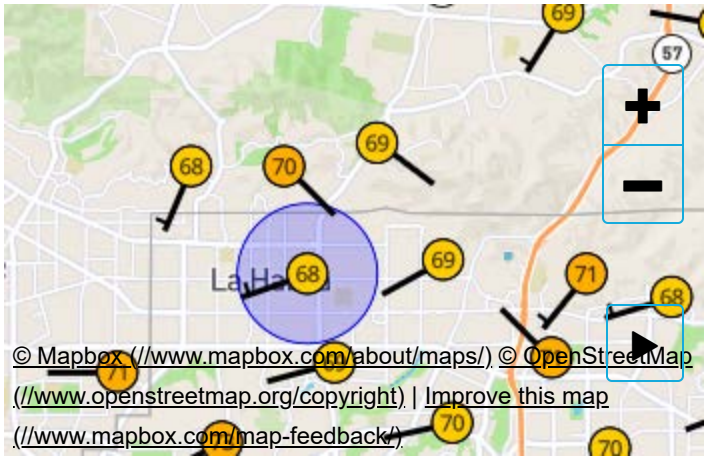
Feels Like
68.2 °

SSE

WIND & GUST
3.8 / **4.5** mph

DEWPOINT	PRECIP RATE
52.0 ° F	**0.00** in/hr
PRESSURE	HUMIDITY
29.72 in	**56** %
PRECIP ACCUM	UV
0.00 in	--

MAP



lat=33.942333133139556&lon=-117.90049387882732&zo

PWS CURRENT CONDITIONS

TEMPERATURE

CURRENT
68°

DEWPOINT
52.0 °F

HUMIDITY
56 %

WIND



WIND
FROM
SSE

GUST
4.5 mph

PRESSURE

CURRENT
29.72 In

PRECIPITATION



PRECIP
RATE
0.00 in/hr

PRECIP
TOTAL
0.00 in

UV



Weather History for KCALAHAB65

Daily Mode | August | 6 | 2025

Previous **View** Next

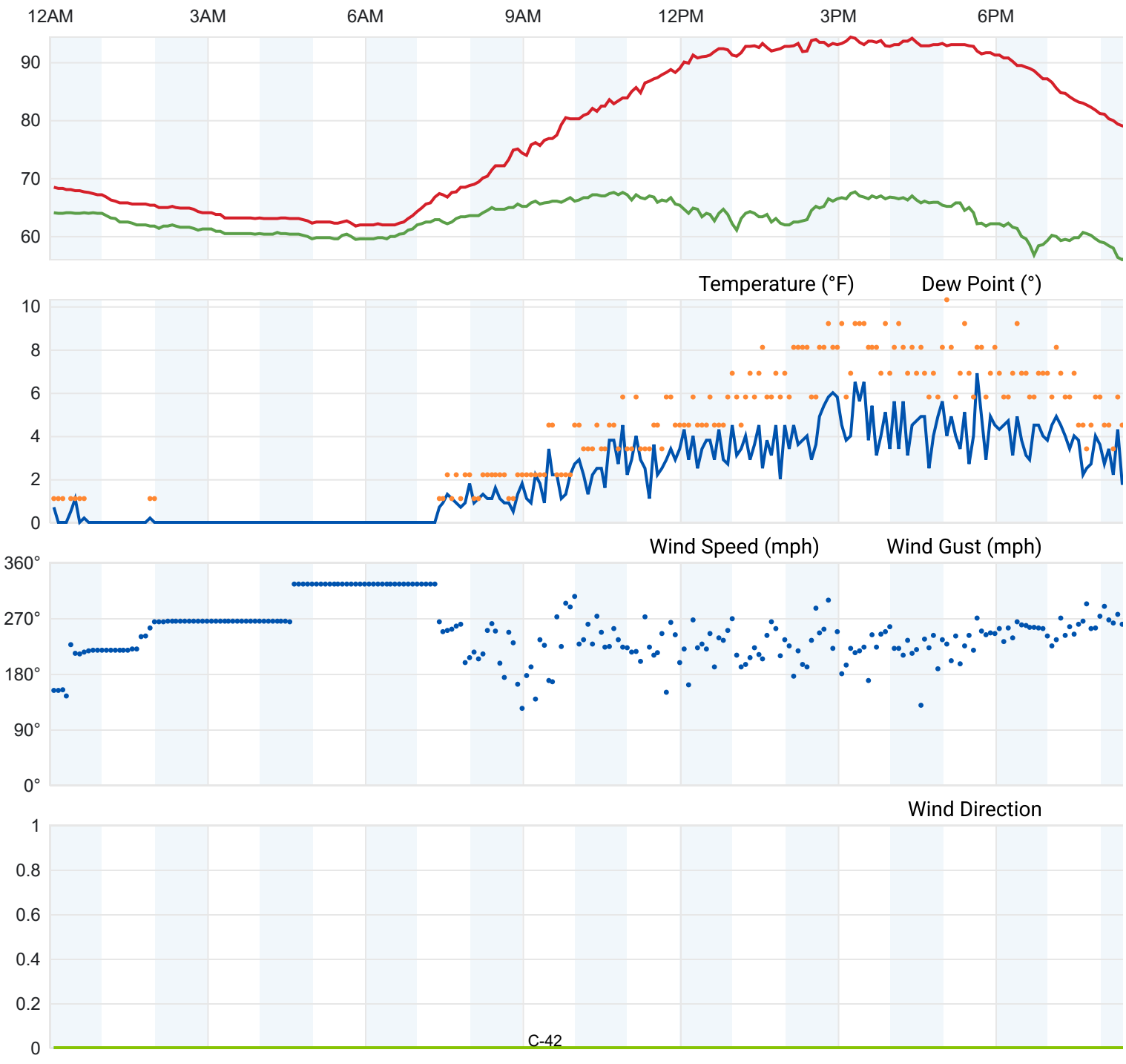
Summary
August 6, 2025

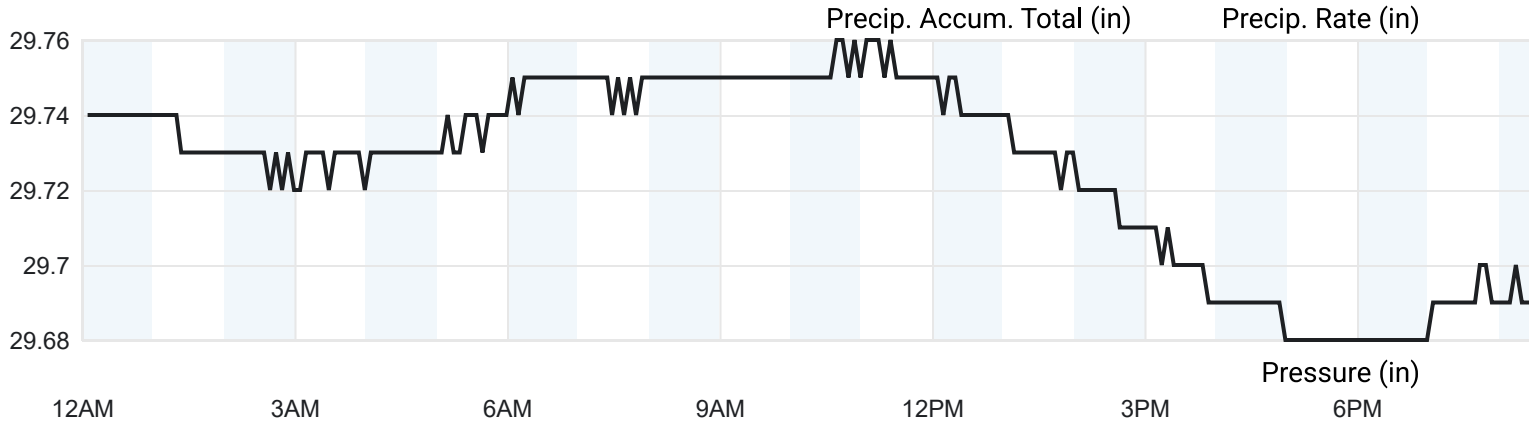
	High	Low	Average
Temperature	**94.3** °F	**61.5** °F	**77.4** °F
Dew Point	**67.6** °F	**55.0** °F	**61.8** °F
Humidity	**93** %	**33** %	**63** %
Precipitation	**0.00** in	--	--

	High	Low	Average
Wind Speed	**6.9** mph	**0.0** mph	**1.2** mph
Wind Gust	**10.3** mph	--	**2.6** mph
Wind Direction	**--**	**--**	**SW**
Pressure	**29.76** in	**29.67** in	**--**

Graph | Table

August 6, 2025





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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.6	84.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Site Preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.7	80.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Grader	No	40	85.0		50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	83.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Building Construction

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50.0	0.0
Generator	No	50		80.6	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.6	79.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Architectural Coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	0.0
Compressor (air)	No	40		77.7	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	Night		
	Lmax	Leq	
Compressor (air)	N/A	N/A	
Compressor (air)	N/A	N/A	
Total	N/A	N/A	

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 feet	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Drum Mixer	No	50		80.0	50.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Drum Mixer	80.0	77.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.0	79.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/13/2026
Case Description: FHS-08.0 Sonora Light Pole Installation

**** Receptor #1 ****

Description	Baselines (dBA) Land Use	Daytime	Evening	Night
Reference Distance Receptor at 50 ft	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50.0	5.0
Auger Drill Rig	No	20		84.4	50.0	5.0
Backhoe	No	40		77.6	50.0	5.0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	75.6	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Auger Drill Rig	79.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	72.6	68.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79.4	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

FHS-08.0 Sonora - Construction Noise Modeling Attenuation Calculations

Levels in dBA Leq

Phase	RCNM Reference Noise Level	Receptor to North[1]	Receptor to East	Receptor to West
Distance in feet	*50*	*150*	*760*	*135*
Demolition	85	72	61	76
Site Prep	81	68	57	72
Grading	83	70	59	74
Distance in feet	*50*	*860*	*720*	*555*
Building Construction	79	51	56	58
Architectural Coating	77	49	54	56
Distance in feet	*50*	*250*	*680*	*125*
Paving	80	63	57	72
Distance in feet	*50*	*45*	*650*	*40*
Light Pole Installation	75	73	53	77

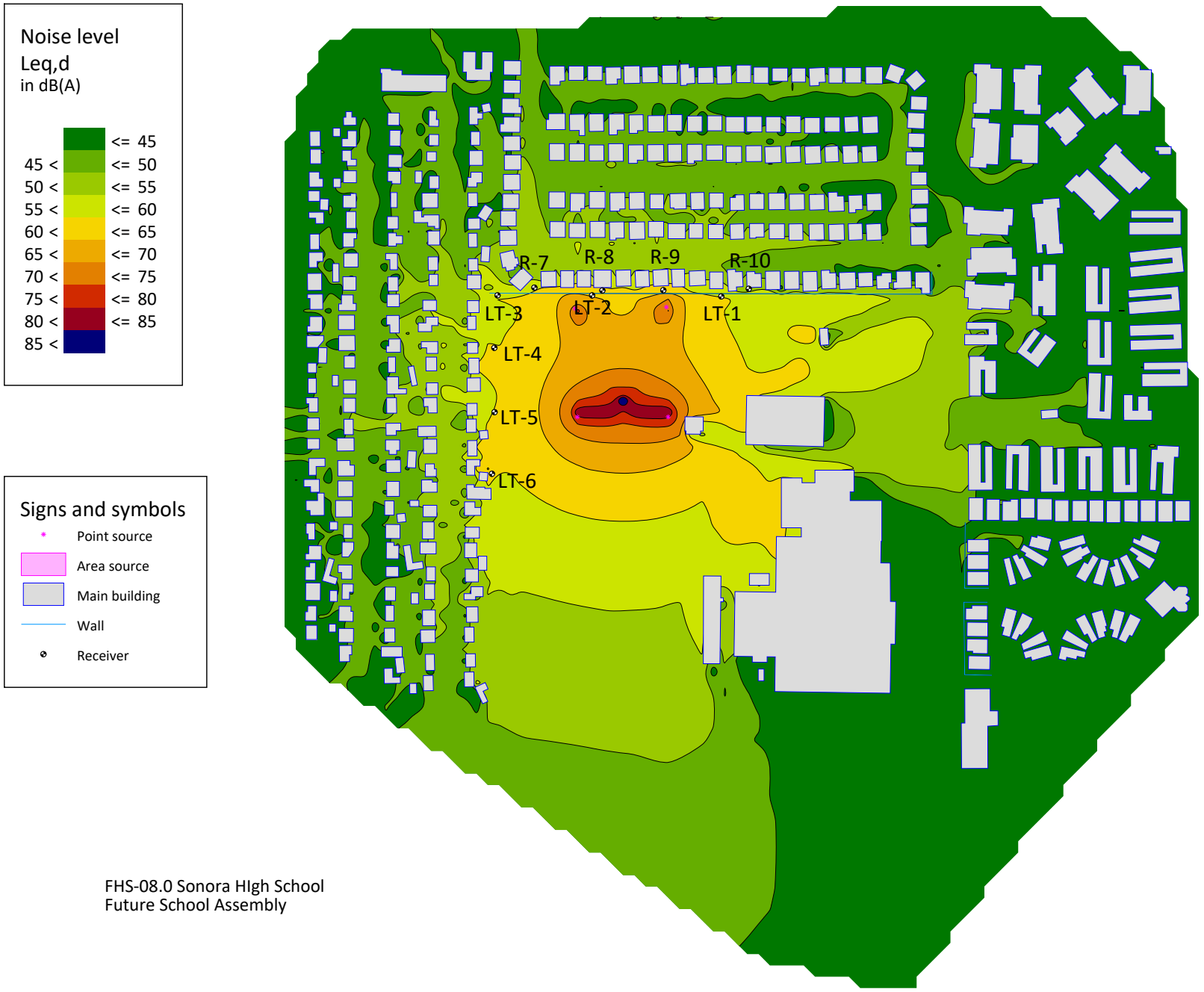
Attenuation calculated through Inverse Square Law: Lp(R2) = Lp(R1) - 20Log(R2/R1)

[1] *-3 dBA applied to account for existing property line CMU wall*

FHS-08.0 Sonora - Vibration Damage Attenuation Calculations

Levels, PPV (in/sec)

Distance in feet	**Vibration Reference Level at *25 feet***	**Receptor to North** *45*	**Receptor to East** *655*	**Receptor to West** *40*
Vibratory Roller	0.21	0.087	0.002	0.104
Hoe Ram	0.089	0.037	0.001	0.044
Large Bulldozer	0.089	0.037	0.001	0.044
Caisson Drilling	0.089	0.037	0.001	0.044
Loaded Trucks	0.076	0.031	0.001	0.038
Jackhammer	0.035	0.014	0.000	0.017
Small Bulldozer	0.003	0.001	0.000	0.001



FHS-08.0 Sonora HIgh School
Future School Assembly

Sonora FJUHSD
Assessed receiver levels
Sonora Assembly

2

Receiver	Usage	Fl	Leq,d dB(A)	Leq,n dB(A)	
LT-1	SCR	G	61.4	61.4	
LT-2	SCR	G	66.3	66.3	
LT-3	SCR	G	61.1	61.1	
LT-4	SCR	G	59.7	59.7	
LT-5	SCR	G	60.3	60.3	
LT-6	SCR	G	59.2	59.2	
R-7	SCR	G	59.5	59.5	
R-8	SCR	G	60.9	60.9	
R-9	SCR	G	61.8	61.8	
R-10	SCR	G	54.3	54.3	

Sonora FJUHSD
Contribution level - Sonora Assembly

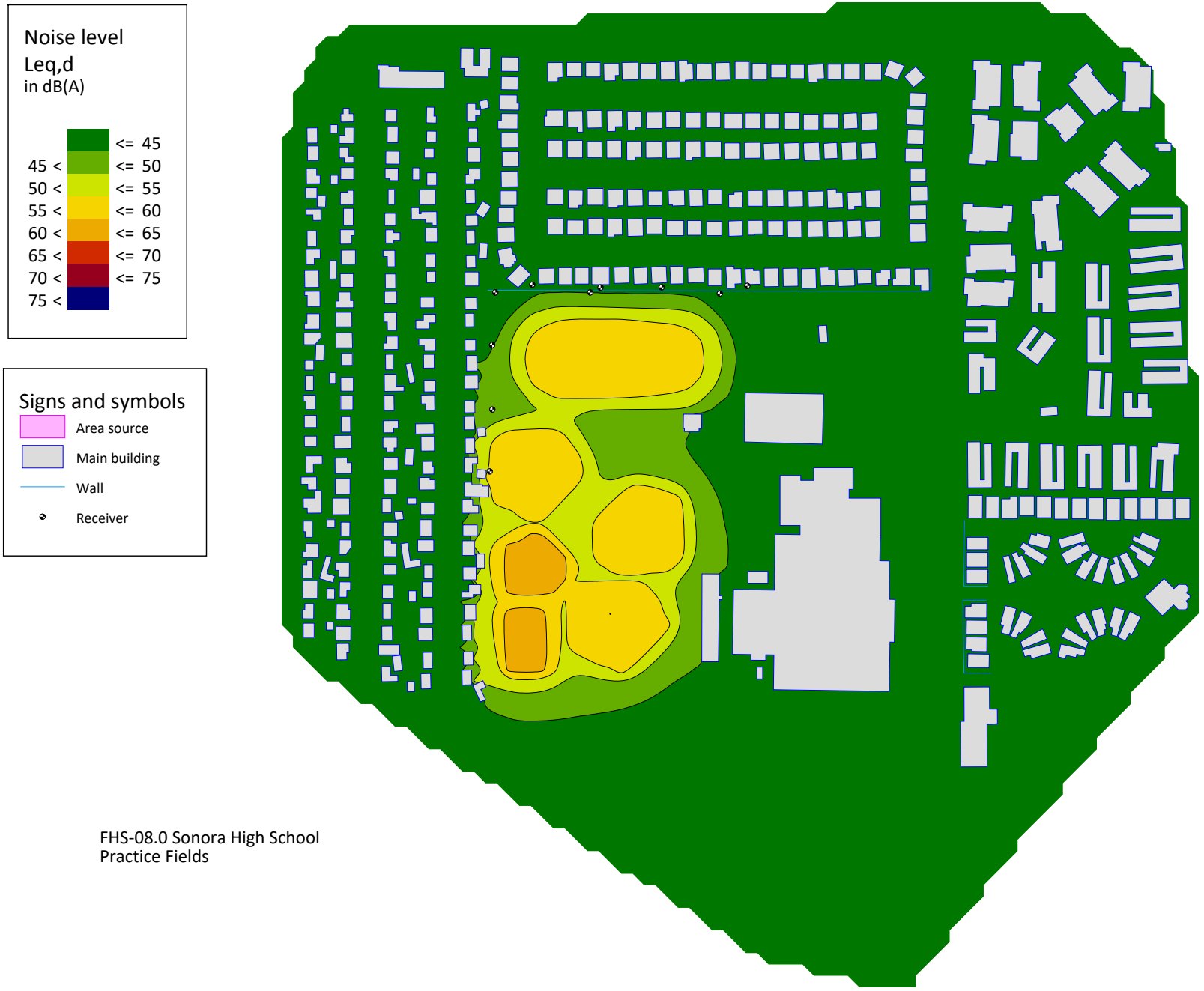
Source	Source group	Source type	Leq,d dB(A)	Leq,n dB(A)	
Receiver LT-1 Fl G Leq,d 61.4 dB(A) Leq,n 61.4 dB(A)					
Band	Band	Area	54.6	54.6	
Home Bleachers	Crowd Noise	Area	54.1	54.1	
Away Bleachers	Crowd Noise	Area	56.4	56.4	
F3	Speakers	Point	50.4	50.4	
F1	Speakers	Point	46.2	46.2	
F4	Speakers	Point	49.5	49.5	
F2	Speakers	Point	52.2	52.2	
Receiver LT-2 Fl G Leq,d 66.3 dB(A) Leq,n 66.3 dB(A)					
Band	Band	Area	57.1	57.1	
Home Bleachers	Crowd Noise	Area	57.7	57.7	
Away Bleachers	Crowd Noise	Area	56.6	56.6	
F3	Speakers	Point	53.3	53.3	
F1	Speakers	Point	63.2	63.2	
F4	Speakers	Point	54.3	54.3	
F2	Speakers	Point	52.0	52.0	
Receiver LT-3 Fl G Leq,d 61.1 dB(A) Leq,n 61.1 dB(A)					
Band	Band	Area	54.9	54.9	
Home Bleachers	Crowd Noise	Area	56.2	56.2	
Away Bleachers	Crowd Noise	Area	54.3	54.3	
F3	Speakers	Point	50.2	50.2	
F1	Speakers	Point	48.6	48.6	
F4	Speakers	Point	50.0	50.0	
F2	Speakers	Point	44.0	44.0	
Receiver LT-4 Fl G Leq,d 59.7 dB(A) Leq,n 59.7 dB(A)					
Band	Band	Area	53.4	53.4	
Home Bleachers	Crowd Noise	Area	55.1	55.1	
Away Bleachers	Crowd Noise	Area	51.9	51.9	
F3	Speakers	Point	46.5	46.5	
F1	Speakers	Point	48.3	48.3	
F4	Speakers	Point	48.0	48.0	
F2	Speakers	Point	46.8	46.8	
Receiver LT-5 Fl G Leq,d 60.3 dB(A) Leq,n 60.3 dB(A)					
Band	Band	Area	52.5	52.5	
Home Bleachers	Crowd Noise	Area	56.9	56.9	

Source	Source group	Source type	Leq,d dB(A)	Leq,n dB(A)	
Away Bleachers	Crowd Noise	Area	52.6	52.6	
F3	Speakers	Point	46.3	46.3	
F1	Speakers	Point	46.9	46.9	
F4	Speakers	Point	48.8	48.8	
F2	Speakers	Point	47.4	47.4	
Receiver LT-6 Fl G Leq,d 59.2 dB(A) Leq,n 59.2 dB(A)					
Band	Band	Area	52.5	52.5	
Home Bleachers	Crowd Noise	Area	55.4	55.4	
Away Bleachers	Crowd Noise	Area	52.8	52.8	
F3	Speakers	Point	42.3	42.3	
F1	Speakers	Point	44.8	44.8	
F4	Speakers	Point	45.2	45.2	
F2	Speakers	Point	46.9	46.9	
Receiver R-7 Fl G Leq,d 59.5 dB(A) Leq,n 59.5 dB(A)					
Band	Band	Area	51.7	51.7	
Home Bleachers	Crowd Noise	Area	53.4	53.4	
Away Bleachers	Crowd Noise	Area	51.5	51.5	
F3	Speakers	Point	48.0	48.0	
F1	Speakers	Point	53.4	53.4	
F4	Speakers	Point	48.3	48.3	
F2	Speakers	Point	44.2	44.2	
Receiver R-8 Fl G Leq,d 60.9 dB(A) Leq,n 60.9 dB(A)					
Band	Band	Area	50.6	50.6	
Home Bleachers	Crowd Noise	Area	51.7	51.7	
Away Bleachers	Crowd Noise	Area	51.1	51.1	
F3	Speakers	Point	48.1	48.1	
F1	Speakers	Point	57.3	57.3	
F4	Speakers	Point	49.0	49.0	
F2	Speakers	Point	51.8	51.8	
Receiver R-9 Fl G Leq,d 61.8 dB(A) Leq,n 61.8 dB(A)					
Band	Band	Area	50.3	50.3	
Home Bleachers	Crowd Noise	Area	51.0	51.0	
Away Bleachers	Crowd Noise	Area	51.6	51.6	
F3	Speakers	Point	48.0	48.0	
F1	Speakers	Point	48.3	48.3	

Source	Source group	Source type	Leq,d dB(A)	Leq,n dB(A)	
F4	Speakers	Point	47.6	47.6	
F2	Speakers	Point	59.7	59.7	
Receiver R-10 Fl G Leq,d 54.3 dB(A) Leq,n 54.3 dB(A)					
Band	Band	Area	47.4	47.4	
Home Bleachers	Crowd Noise	Area	46.6	46.6	
Away Bleachers	Crowd Noise	Area	49.5	49.5	
F3	Speakers	Point	44.2	44.2	
F1	Speakers	Point	35.3	35.3	
F4	Speakers	Point	40.5	40.5	
F2	Speakers	Point	45.5	45.5	

Sonora FJUHSD
Octave spectra of the sources in dB(A) - Sonora Assembly

Name	Source type	l or A	L'w	Lw	KI	KT	DO-Wall	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Away Bleachers	Area	310.85	93.7	118.6	0.0	0.0	0	School Assembly	American Football, Spectators`s area		92.6	107.7	115.5	111.5	111.2	104.8	95.7		
Band	Area	27.76	100.6	115.0	0.0	0.0	0	Band during Game 20% = 12 minutes	Live bands (Pop, Rock, Metal)	100.5	100.0	104.6	109.5	110.3	106.9	102.2	94.7	76.6	
F1	Point		110.0	110.0	0.0	0.0	0	Speaker Assembly	Average Spectrum from 2022-10-07 Survey	81.7	96.3	99.1	104.7	105.4	102.2	97.0	90.7	69.3	
F2	Point		110.0	110.0	0.0	0.0	0	Speaker Assembly	Average Spectrum from 2022-10-07 Survey	81.7	96.3	99.1	104.7	105.4	102.2	97.0	90.7	69.3	
F3	Point		110.0	110.0	0.0	0.0	0	Speaker Assembly	Average Spectrum from 2022-10-07 Survey	81.7	96.3	99.1	104.7	105.4	102.2	97.0	90.7	69.3	
F4	Point		110.0	110.0	0.0	0.0	0	Speaker Assembly	Average Spectrum from 2022-10-07 Survey	81.7	96.3	99.1	104.7	105.4	102.2	97.0	90.7	69.3	
Home Bleachers	Area	310.96	93.7	118.6	0.0	0.0	0	School Assembly	American Football, Spectators`s area		92.6	107.7	115.5	111.5	111.2	104.8	95.7		



FHS-08.0 Sonora High School
Practice Fields

Sonora FJUHSD
Assessed receiver levels
Practice Fields

2

Receiver	Usage	Fl	Leq,d dB(A)	Leq,n dB(A)	
LT-1	SCR	G	44.3	44.3	
LT-2	SCR	G	47.9	47.9	
LT-3	SCR	G	43.8	43.8	
LT-4	SCR	G	44.9	44.9	
LT-5	SCR	G	46.7	46.7	
LT-6	SCR	G	55.7	55.7	
R-7	SCR	G	43.5	43.5	
R-8	SCR	G	42.8	42.8	
R-9	SCR	G	42.1	42.1	
R-10	SCR	G	38.1	38.1	

Sonora FJUHSD
Contribution level - Practice Fields

Source	Source group	Source type	Ldn dB(A)	Leq,d dB(A)	Leq,n dB(A)	
Receiver LT-1 Fl G Leq,d 44.3 dB(A) Leq,n 44.3 dB(A)						
Auxillary Field	Playfield	Area	36.0	29.6	29.6	
Softball Field	Playfield	Area	37.2	30.8	30.8	
Softball Field	Playfield	Area	39.7	33.3	33.3	
Softball Field	Playfield	Area	40.2	33.8	33.8	
Playfield	Playfield	Area	49.2	42.7	42.7	
Softball Field	Playfield	Area	37.7	31.3	31.3	
Receiver LT-2 Fl G Leq,d 47.9 dB(A) Leq,n 47.9 dB(A)						
Auxillary Field	Playfield	Area	36.9	30.5	30.5	
Softball Field	Playfield	Area	37.4	31.0	31.0	
Softball Field	Playfield	Area	40.4	34.0	34.0	
Softball Field	Playfield	Area	42.9	36.5	36.5	
Playfield	Playfield	Area	53.4	47.0	47.0	
Softball Field	Playfield	Area	39.1	32.7	32.7	
Receiver LT-3 Fl G Leq,d 43.8 dB(A) Leq,n 43.8 dB(A)						
Auxillary Field	Playfield	Area	37.0	30.6	30.6	
Softball Field	Playfield	Area	36.9	30.5	30.5	
Softball Field	Playfield	Area	39.0	32.6	32.6	
Softball Field	Playfield	Area	43.1	36.6	36.6	
Playfield	Playfield	Area	47.6	41.2	41.2	
Softball Field	Playfield	Area	39.1	32.7	32.7	
Receiver LT-4 Fl G Leq,d 44.9 dB(A) Leq,n 44.9 dB(A)						
Auxillary Field	Playfield	Area	35.9	29.5	29.5	
Softball Field	Playfield	Area	35.7	29.3	29.3	
Softball Field	Playfield	Area	37.9	31.5	31.5	
Softball Field	Playfield	Area	43.5	37.1	37.1	

Sonora FJUHSD
Contribution level - Practice Fields

Source	Source group	Source type	Ldn dB(A)	Leq,d dB(A)	Leq,n dB(A)	
Playfield	Playfield	Area	49.6	43.2	43.2	
Softball Field	Playfield	Area	38.4	32.0	32.0	
Receiver LT-5 Fl G Leq,d 46.7 dB(A) Leq,n 46.7 dB(A)						
Auxillary Field	Playfield	Area	38.3	31.9	31.9	
Softball Field	Playfield	Area	37.7	31.3	31.3	
Softball Field	Playfield	Area	40.0	33.6	33.6	
Softball Field	Playfield	Area	50.9	44.5	44.5	
Playfield	Playfield	Area	46.3	39.9	39.9	
Softball Field	Playfield	Area	41.7	35.3	35.3	
Receiver LT-6 Fl G Leq,d 55.7 dB(A) Leq,n 55.7 dB(A)						
Auxillary Field	Playfield	Area	41.3	34.8	34.8	
Softball Field	Playfield	Area	42.3	35.9	35.9	
Softball Field	Playfield	Area	44.1	37.7	37.7	
Softball Field	Playfield	Area	61.7	55.3	55.3	
Playfield	Playfield	Area	42.7	36.3	36.3	
Softball Field	Playfield	Area	47.7	41.3	41.3	
Receiver R-7 Fl G Leq,d 43.5 dB(A) Leq,n 43.5 dB(A)						
Auxillary Field	Playfield	Area	36.3	29.9	29.9	
Softball Field	Playfield	Area	36.4	30.0	30.0	
Softball Field	Playfield	Area	38.8	32.3	32.3	
Softball Field	Playfield	Area	41.9	35.5	35.5	
Playfield	Playfield	Area	47.7	41.3	41.3	
Softball Field	Playfield	Area	38.3	31.9	31.9	
Receiver R-8 Fl G Leq,d 42.8 dB(A) Leq,n 42.8 dB(A)						
Auxillary Field	Playfield	Area	35.0	28.6	28.6	
Softball Field	Playfield	Area	35.5	29.1	29.1	

Sonora FJUHSD
Contribution level - Practice Fields

Source	Source group	Source type	Ldn dB(A)	Leq,d dB(A)	Leq,n dB(A)	
Softball Field	Playfield	Area	37.9	31.5	31.5	
Softball Field	Playfield	Area	40.0	33.6	33.6	
Playfield	Playfield	Area	47.5	41.0	41.0	
Softball Field	Playfield	Area	36.8	30.4	30.4	
Receiver R-9 Fl G Leq,d 42.1 dB(A) Leq,n 42.1 dB(A)						
Auxillary Field	Playfield	Area	35.1	28.7	28.7	
Softball Field	Playfield	Area	35.8	29.4	29.4	
Softball Field	Playfield	Area	38.3	31.9	31.9	
Softball Field	Playfield	Area	39.2	32.8	32.8	
Playfield	Playfield	Area	46.5	40.1	40.1	
Softball Field	Playfield	Area	36.7	30.3	30.3	
Receiver R-10 Fl G Leq,d 38.1 dB(A) Leq,n 38.1 dB(A)						
Auxillary Field	Playfield	Area	33.1	26.7	26.7	
Softball Field	Playfield	Area	31.7	25.3	25.3	
Softball Field	Playfield	Area	34.5	28.0	28.0	
Softball Field	Playfield	Area	36.0	29.6	29.6	
Playfield	Playfield	Area	41.8	35.4	35.4	
Softball Field	Playfield	Area	34.6	28.2	28.2	

Sonora FJUHSD
Octave spectra of the sources in dB(A) - Practice Fields

Name	Source type	L'w dB(A)	Lw dB(A)	KI dB	KT dB	Day histogram	Emission spectrum	500Hz dB(A)	
Auxillary Field	Area	59.9	94.0	0.0	0.0	Playfield 30 Min	Soccer, Players	94.0	
Playfield	Area	52.6	94.0	0.0	0.0	Playfield 30 Min	American Football, Players	94.0	
Softball Field	Area	58.9	94.0	0.0	0.0	Playfield 30 Min	Soccer, Players	94.0	
Softball Field	Area	57.2	94.0	0.0	0.0	Playfield 30 Min	Soccer, Players	94.0	
Softball Field	Area	57.2	94.0	0.0	0.0	Playfield 30 Min	Soccer, Players	94.0	
Softball Field	Area	57.2	94.0	0.0	0.0	Playfield 30 Min	Soccer, Players	94.0	

APPENDIX D TRAFFIC IMPACT STUDY

APPENDIX

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SONORA HIGH SCHOOL

MATH & SCIENCE CLASSROOM BUILDING MODERNIZATION AND FIELD IMPROVEMENTS PROJECT

TRAFFIC CIRCUALTION MEMO

Prepared for:
PlaceWorks

Prepared by:
DJ&A

February 11, 2026

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Appendix A – Roadway Segment Counts

Appendix B – ITE Trip Generation Reports

1. Project Description

Sonora High School (SHS) is located in La Habra, California and serves students in grades 9 through 12. The Fullerton Joint Union High School District (FJUHSD) is proposing improvements to the SHS math & science classroom building and to outdoor athletic facilities on the school campus as part of the proposed project.

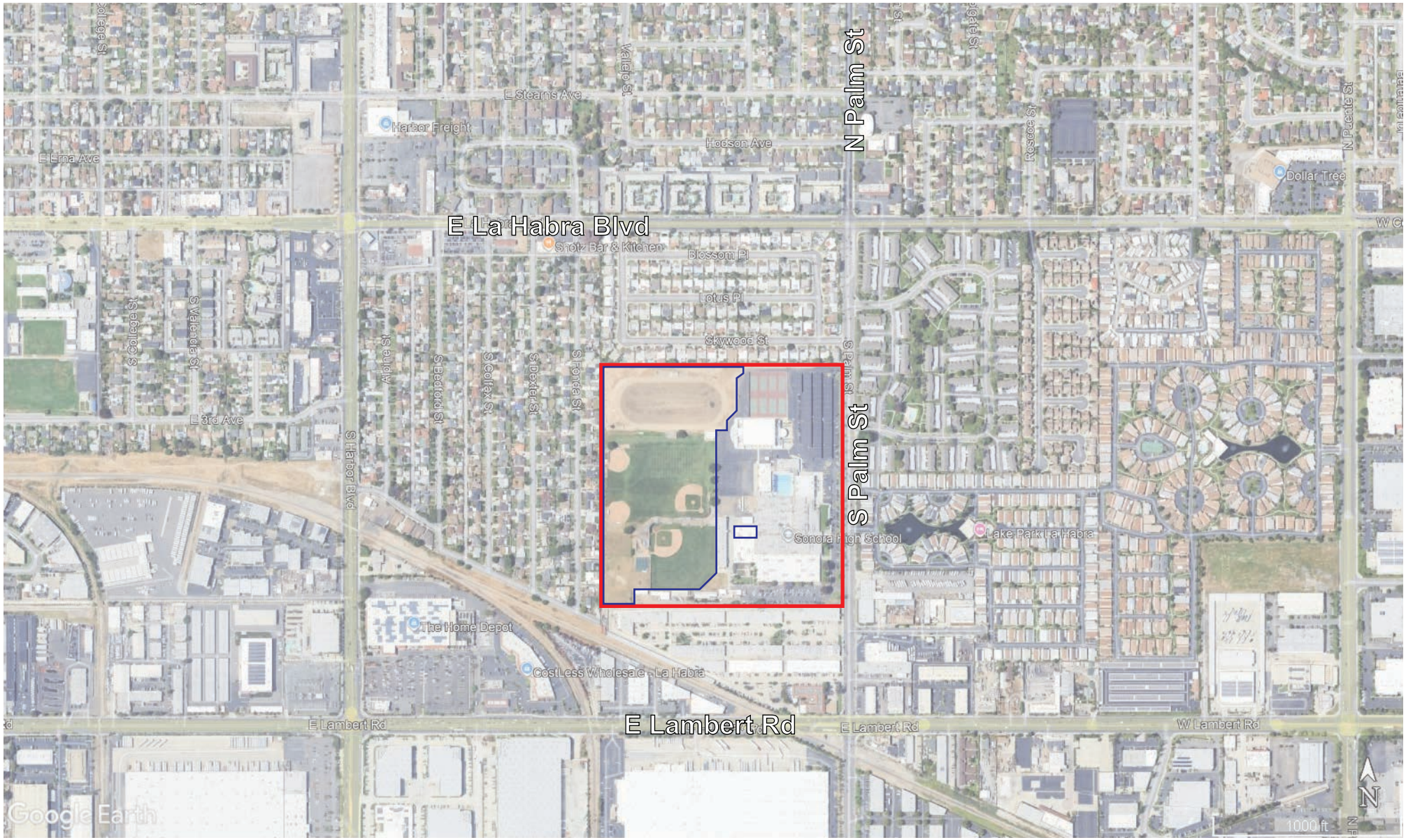
The proposed project includes a comprehensive modernization of Building 400 and upgrades to the school's athletic facilities. Building 400 would undergo demolition and replacement of both exterior and interior elements, including doors, roofing, HVAC systems, plumbing, fire alarms, and lab infrastructure. Interior spaces would be reconfigured to create two biology and two chemistry classrooms, reducing the total number of classrooms from six to four while maintaining the existing building footprint. Exterior improvements would include repainting and replacement of select site features.

Athletic facility improvements would involve demolition of existing track and field features, including retaining walls, bleachers, equipment, and select landscaping, followed by construction of upgraded facilities. The project would add a new 3,015-square-foot restroom building, synthetic track and field surfaces, new jumping and throwing areas, golf practice amenities, and a PA system. Permanent bleachers with seating for 1,464 spectators would be installed, representing a net increase of 934 seats, along with new pedestrian lighting, a fire hydrant, a large scoreboard, and 24 field lights across multiple athletic areas. A portion of the animal grazing area would be converted into a new auxiliary field with sod, irrigation, lighting, and fencing.

Additional site improvements on campus would include new concrete walkways, ramps, fencing, gates, landscaping, and a 16,000-square-foot bioretention area to manage stormwater. The project would also replace fencing at the campus entrance and enhance access between athletic and agricultural areas. Operational changes are limited to the addition of evening practices for select sports between 3:30 p.m. and 8:00 p.m., without spectators, and occasional school assemblies at the track during school hours. Construction is proposed to occur in a single phase from approximately August 2026 through January 2027.

The proposed upgrades would enhance operations for existing classes, athletic activities, and school events, but would decrease school student capacity.

The primary purpose of this study is to assess the potential impacts of the proposed project on traffic and circulation conditions in the vicinity of SHS. The existing school site and proposed project area are shown in Figure 1.



LEGEND

- Sonora High School Boundary
- Project Boundary

Figure 1: Sonora High School Proposed Project Area

2. Traffic Analysis: Approach and Methodology

This traffic analysis reports average daily traffic volumes and trip distribution for a range of scenarios. Traffic conditions for study area roadway segments were evaluated for each of the following scenarios:

- Existing Conditions (2026) without Project
- Opening Year (2027) without Project
- Existing Conditions (2026) with Project
- Opening Year (2027) with Project

For the purpose of this analysis, the project opening year for traffic conditions is 2027. This is because the proposed project's construction period is scheduled to be completed during the 2027 calendar year. An ambient growth rate of 1% per year was used to forecast the future volumes.

The proposed project is expected to result in a reduction in AM or PM peak hour trips, and in the number of daily trips traveling to and from the school campus. As such, an analysis of off-site peak hour intersection performance due to the lighting structures and building renovation is not necessary.

2.1 Average Daily Traffic

Average daily traffic (ADT) data was collected on five roadway segments surrounding the study area for a full 24-hour period on Wednesday, January 7, 2026. The roadway segment locations are depicted in Figure 2 and listed below:

A. S Palm Street north of E Lambert Road
B. S Palm Street south of E La Habra Boulevard
C. E La Habra Boulevard east of N Palm Street
D. N Palm Street north of E La Habra Boulevard
E. E La Habra Boulevard west of N Palm Street

2.1.1 Roadway descriptions

The study area roadways are described below with respect to existing geometry, pedestrian and bicycle facilities, speed limit, parking facilities, and adjacent land uses.

Palm Street

Palm Street is a north–south arterial roadway that consists of four travel lanes, with two lanes in each direction and dedicated left-turn pockets provided at select intersections, serving both local access and through traffic near SHS. The roadway accommodates moderate traffic volumes and functions as an important connector between residential neighborhoods and major east–west corridors within the city. Pedestrian facilities include sidewalks along both sides of the roadway, supporting student and neighborhood pedestrian activity. Bicycle facilities are limited, with bicyclists generally sharing the roadway with vehicular traffic. The posted speed limit is 35 miles per hour. On-street parking is permitted in select locations where not restricted, primarily serving nearby residential uses and school-related activity. Adjacent land uses include single-family residential neighborhoods, school facilities, and limited commercial development near major intersections.

La Habra Boulevard

La Habra Boulevard is an east–west arterial roadway that consists of four travel lanes, with two lanes in each direction and a continuous center two-way left-turn lane. The roadway serves as a major local corridor connecting residential neighborhoods with commercial areas and other north–south arterials throughout the city. Sidewalks are provided along both sides of the roadway, supporting pedestrian access. Bicycle facilities include a striping Class II bike lane east of Palm Street and a striped Class II bike lane on the south side of the street west of Palm Street. The posted speed limit is 40 miles per hour. On-street parking is allowed in select segments west of Palm Street. Adjacent land uses include a mix of residential development, commercial uses, and institutional uses near the school.

Lambert Road

Lambert Road is an east–west arterial roadway that consists of four travel lanes, with two lanes in each direction and a center two-way left-turn lane, serving local and regional traffic. The roadway provides an important east–west connection between residential neighborhoods and larger regional corridors. Pedestrian facilities include sidewalks along both sides of the street. Bicycle facilities are limited, and bicyclists typically share the roadway with vehicular traffic. The posted speed limit is 40 miles per hour. On-street parking is generally permitted where signage allows adjacent to both commercial and industrial land uses. Adjacent land uses consist primarily of commercial and industrial development.

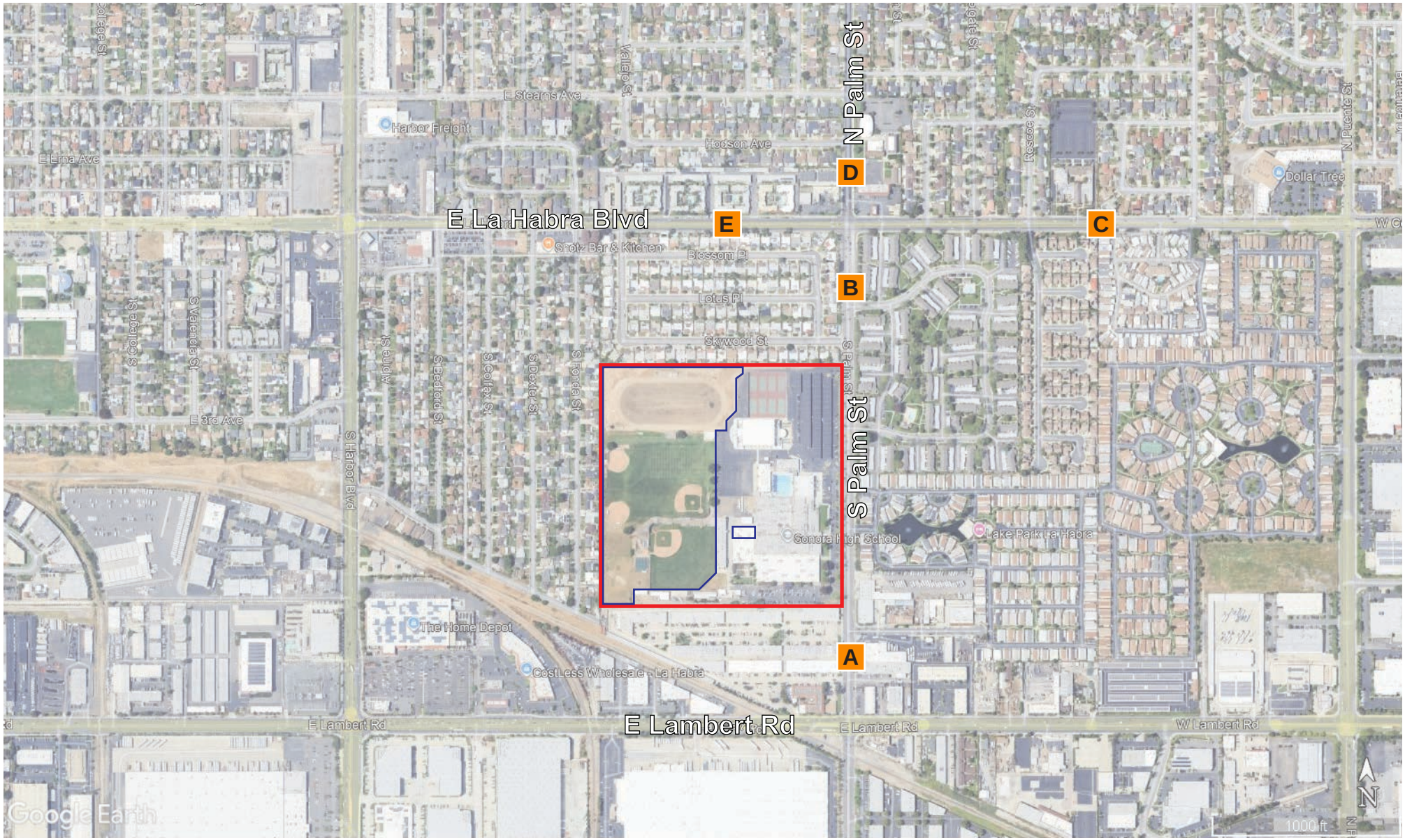
2.2 Trip Generation

The forecast change in trip generation for SHS under with project conditions is estimated using rates published in the ITE Trip Generation Manual 12th Edition. The trips are based on rates for a high school (ITE Code 525). As previously mentioned, the proposed project is anticipated to reduce the student capacity at SHS by 54 students, resulting in a new capacity of 2,619 students.

Table 1 presents the trip generation reduction forecast for the project weekday daily period and the AM and PM peak hours. The trip generation reduction was used in this study to allocate the reduction in project-generated traffic volumes for the daily period to the adjacent street network.

Table 1 Trip Generation for Sonora High School

Land Use and Time Period	Students	Trip Generation Rate	Distribution		Trips		Total
			Inbound	Outbound	Inbound	Outbound	
Existing Condition							
High School – Daily	2,673	.14 trips / student	50%	50%	2,593	2,593	5,186
High School – AM Peak Hour	2,673	.14 trips / student	68%	32%	945	445	1,390
High School – PM Peak Hour	2,673	.14 trips / student	48%	52%	192	209	401
With Project Condition							
High School – Daily	2,619	.14 trips / student	50%	50%	2,540	2,541	5,081
High School – AM Peak Hour	2,619	.14 trips / student	68%	32%	926	436	1,362
High School – PM Peak Hour	2,619	.14 trips / student	48%	52%	189	204	393
Net Change							
High School – Daily	-54	-	-	-	-53	-52	-105
High School – AM Peak Hour	-54	-	-	-	-19	-9	-28
High School – PM Peak Hour	-54	-	-	-	-3	-5	-8



LEGEND

A) S Palm St n/o E Lambert Rd
B) S Palm St s/o E La Habra Blvd
C) E La Habra Blvd e/o N Palm St
D) N Palm St n/o E La Habra Blvd
E) E La Habra Blvd w/o N Palm St

Roadway Segment Locations
Sonora High School Boundary
Project Boundary

Figure 2: Roadway Segment Locations

3. Traffic Analysis: Without Project

This section of the memo summarizes the traffic analysis results for scenarios in the no project condition:

- Existing Conditions (2026) without Project
- Opening Year (2027) without Project

3.1 Average Daily Traffic Volumes

The average daily traffic (ADT) volumes for the study area roadway segments under Existing Conditions and in the Opening Year (2027) No Project scenario are summarized in Table 2. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A. Year 2027 No Project traffic volumes were estimated by applying an assumed 1% annual growth rate to Existing Year (2026) counts.

Table 2 Estimated Roadway ADT Opening Year with No Project.

Roadway	Existing 2026 ADT	2027 No Project
S Palm Street n/o E Lambert Road	10,261	10,364
S Palm Street s/o E La Habra Boulevard	10,486	10,591
E La Habra Boulevard e/o N Palm Street	23,587	23,823
N Palm Street n/o E La Habra Boulevard	8,642	8,728
E La Habra Boulevard w/o N Palm Street	25,609	25,865

4. Traffic Analysis: With Project

This section includes a summary of traffic volumes for the with project scenarios:

- Existing Conditions (2026) with Project
- Opening Year (2027) with Project

4.1 Existing Year (2026) With Project

4.1.1 Average Daily Traffic

The ADT volumes for the study area roadway segments in the Existing Year (2026) With Project scenario are summarized in Table 3.

Table 3 Estimated Roadway ADT Existing Year (2026) With Project.

Roadway	Existing 2026 ADT	2026 With Project
S Palm St n/o E Lambert Rd	10,261	10,209
S Palm St s/o E La Habra Blvd	10,486	10,433
E La Habra Blvd e/o N Palm St	23,587	23,570
N Palm St n/o E La Habra Blvd	8,642	8,624
E La Habra Blvd w/o N Palm St	25,609	25,591

4.2 Opening Year (2027) With Project

4.2.1 Average Daily Traffic

Table 4 below shows the estimated ADT volumes for each roadway segment, by scenario, including the Opening Year (2027) With Project scenario. The Opening Year (2027) With Project ADT volumes were estimated using a 1% annual growth rate from the 2026 With Project scenario ADT volumes.

Table 4 Estimated Roadway ADT, by roadway and scenario.

Roadway	Existing 2026 ADT	2027 No Project	2026 With Project	2027 With Project
S Palm St n/o E Lambert Rd	10,261	10,364	10,209	10,312
S Palm St s/o E La Habra Blvd	10,486	10,591	10,433	10,538
E La Habra Blvd e/o N Palm St	23,587	23,823	23,570	23,806
N Palm St n/o E La Habra Blvd	8,642	8,728	8,624	8,710
E La Habra Blvd w/o N Palm St	25,609	25,865	25,591	25,847

5. Additional Analyses

5.1 VMT Screening

The proposed project would not generate new vehicle trips since the project decreases student capacity at SHS, nor would the field improvements result in new or additional activities occurring at the campus that would result in an increase in vehicle trips. Because there is no increase in trips forecast to be generated by the project, the project is eligible to be screened out from the need for full project level VMT analysis. No VMT impact is anticipated.

5.2 Pedestrian and Site Circulation

5.2.1 Existing conditions

The campus includes two parking lots: one located in the northeastern area of the site and another in the southeastern and eastern portion of the campus. Vehicular access to the northeastern parking lot is provided by two combined ingress–egress driveways along Palm Street and includes a designated student pick-up and drop-off zone serving the athletic facilities. The southeastern parking lot is accessed via a single combined ingress–egress driveway, also located along Palm Street. The internal circulation connection between the two parking lots functions as an additional designated pick-up and drop-off zone for the main school building and includes additional parking spaces.

Pedestrian access to the campus is provided by sidewalks within the public rights-of-way adjacent to the site. Alternative modes of transportation to the campus include bicycling and public bus service. La Habra Boulevard, located north of the campus, is a designated corridor featuring Class II bicycle lanes. Public transit service is provided by the Orange County Transportation Authority (OCTA). A bus stop serving Route 129 is located north of the campus along La Habra Boulevard. Although the Central–Palm stop is the closest Route 129 stop to the campus, pedestrians must walk approximately seven minutes south to reach the site.

5.2.2 Analysis

This subsection examines site access, circulation, and potential traffic safety issues related to SHS's proposed project driveways and parking areas. This review is completed at a high level based on the project description provided by FJUHSD.

Intersection Sight Distance

Existing project driveways provide sufficient sight distance. No significant horizontal curves are proposed along the roadways in the vicinity of the project driveway locations. As such, no modifications to driveway sight distances are recommended as part of this analysis. This impact is anticipated to be less than significant.

Driveway Length

The existing site access driveways are designed to serve the school's typical peak AM and PM hour traffic volumes and turning movements. Since the proposed project would generate a reduction in AM and PM peak hour trips, driveway congestion and queues would not be significantly impacted. No modifications to existing driveway lengths are recommended as part of this analysis. This impact is anticipated to be less than significant.

Driveway Proximity and Corner Clearance

Per City of La Habra standards, the existing project driveways are sufficiently distanced from adjacent intersections and from each other.

Right-Turn Lanes at Driveways

The existing site access driveways are designed to serve the school's typical peak AM and PM hour traffic volumes and turning movements. Since the proposed project would not generate an increase in AM and PM peak hour trips, there is no need to change the configuration of right turn lanes at the study driveways.

Pedestrian and Bicycle Access

The proposed project is not anticipated to increase pedestrian and bicycle circulation. No pedestrian or bicycle infrastructure improvements are recommended.

6. Conclusion

This memo has analyzed the forecast change in traffic conditions with the implementation of the proposed SHS Building Modernization and Field Improvements Project.

The proposed project would result in a decrease in daily vehicle trips. Changes to AM and PM peak hour traffic volumes are anticipated to result in a reduction in vehicle trips due to the reduction in student capacity. No analysis is required.

Because the project is proposing development for a local-serving K-12 public school and would not result in a decrease in student capacity and no additional vehicle trips, the project is exempt from a full VMT analysis.

Since the proposed project would generate a reduction in AM and PM peak hour trips, site circulation will not be significantly impacted, and no improvements to the existing site access driveways are recommended based on this analysis.

References

California Department of Transportation. (July 2, 2018). *Highway Design Manual, Chapter 200: Geometric Design and Structure Standards*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp0200-032020.pdf

Appendix A – Roadway Segment Counts

Wednesday, January 07, 2026 CITY: La Habra PROJECT: SC5828

ADT1 N Palm Street north of E Lambert Rd.

Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	NB		SB			PM Period	NB		SB		
0:00	6		5			12:00	58		55		
0:15	9		3			12:15	45		59		
0:30	11		4			12:30	55		59		
0:45	1	27	5	17	44	12:45	56	214	59	232	446
1:00	2		2			13:00	80		56		
1:15	3		3			13:15	90		103		
1:30	5		1			13:30	86		66		
1:45	1	11	3	9	20	13:45	71	327	92	317	644
2:00	1		0			14:00	94		69		
2:15	5		2			14:15	75		68		
2:30	0		2			14:30	84		71		
2:45	1	7	4	8	15	14:45	80	333	112	320	653
3:00	2		4			15:00	91		64		
3:15	0		4			15:15	107		82		
3:30	6		12			15:30	147		235		
3:45	1	9	6	26	35	15:45	181	526	135	516	1042
4:00	5		11			16:00	144		99		
4:15	4		12			16:15	125		91		
4:30	7		25			16:30	130		87		
4:45	7	23	37	85	108	16:45	130	529	80	357	886
5:00	9		30			17:00	149		93		
5:15	2		28			17:15	110		57		
5:30	8		38			17:30	163		59		
5:45	5	24	52	148	172	17:45	119	541	70	279	820
6:00	16		53			18:00	107		40		
6:15	18		52			18:15	111		83		
6:30	14		62			18:30	83		60		
6:45	14	62	92	259	321	18:45	76	377	53	236	613
7:00	25		84			19:00	65		42		
7:15	25		93			19:15	57		49		
7:30	44		101			19:30	60		34		
7:45	34	128	113	391	519	19:45	48	230	41	166	396
8:00	80		127			20:00	43		30		
8:15	74		117			20:15	48		27		
8:30	62		96			20:30	39		68		
8:45	64	280	122	462	742	20:45	50	180	32	157	337
9:00	144		204			21:00	46		36		
9:15	155		256			21:15	51		26		
9:30	101		193			21:30	30		16		
9:45	39	439	78	731	1170	21:45	15	142	13	91	233
10:00	37		53			22:00	19		12		
10:15	62		69			22:15	27		19		
10:30	49		55			22:30	19		4		
10:45	36	184	56	233	417	22:45	18	83	12	47	130
11:00	34		51			23:00	23		12		
11:15	31		57			23:15	22		12		
11:30	47		59			23:30	14		12		
11:45	52	164	65	232	396	23:45	5	64	2	38	102
Total Vol.	1358		2601		**3959**		3546		2756		**6302**

Daily Totals

NB	SB	Combined
4904	5357	**10261**

	AM			PM		
Split %	34.3%	65.7%	**38.6%**	56.3%	43.7%	**61.4%**
Peak Hour	8:45	8:45	**8:45**	15:30	15:30	**15:30**
Volume	464	775	**1239**	597	560	**1157**
P.H.F.	0.75	0.76	**0.75**	0.85	0.60	**0.76**

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Wednesday, January 07, 2026 CITY: La Habra PROJECT: SC5828

ADT2 N Palm St south fo E La Habra Blvd. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	NB		SB			PM Period	NB		SB		
0:00	7		5			12:00	57		48		
0:15	6		4			12:15	38		52		
0:30	8		8			12:30	60		46		
0:45	2	23	3	20	43	12:45	67	222	70	216	438
1:00	1		2			13:00	79		57		
1:15	3		3			13:15	115		70		
1:30	7		0			13:30	78		83		
1:45	2	13	2	7	20	13:45	81	353	99	309	662
2:00	1		0			14:00	88		80		
2:15	5		3			14:15	59		68		
2:30	1		1			14:30	109		92		
2:45	3	10	4	8	18	14:45	102	358	98	338	696
3:00	3		5			15:00	73		111		
3:15	0		3			15:15	94		146		
3:30	9		9			15:30	195		136		
3:45	4	16	9	26	42	15:45	182	544	110	503	1047
4:00	5		15			16:00	141		84		
4:15	7		12			16:15	121		93		
4:30	10		20			16:30	156		78		
4:45	8	30	47	94	124	16:45	141	559	88	343	902
5:00	8		28			17:00	161		98		
5:15	12		27			17:15	113		66		
5:30	16		39			17:30	152		66		
5:45	3	39	60	154	193	17:45	141	567	59	289	856
6:00	13		44			18:00	98		56		
6:15	24		47			18:15	87		57		
6:30	25		58			18:30	79		66		
6:45	18	80	102	251	331	18:45	69	333	56	235	568
7:00	27		85			19:00	92		41		
7:15	27		74			19:15	63		33		
7:30	38		86			19:30	62		44		
7:45	48	140	102	347	487	19:45	43	260	42	160	420
8:00	78		143			20:00	45		26		
8:15	78		159			20:15	46		24		
8:30	76		99			20:30	52		34		
8:45	56	288	134	535	823	20:45	64	207	33	117	324
9:00	86		270			21:00	68		22		
9:15	121		357			21:15	41		25		
9:30	112		138			21:30	24		14		
9:45	40	359	59	824	1183	21:45	10	143	18	79	222
10:00	40		53			22:00	11		18		
10:15	76		67			22:15	26		16		
10:30	50		62			22:30	16		8		
10:45	42	208	50	232	440	22:45	17	70	12	54	124
11:00	36		53			23:00	25		12		
11:15	45		66			23:15	23		7		
11:30	47		63			23:30	19		12		
11:45	57	185	52	234	419	23:45	2	69	4	35	104
Total Vol.	1391		2732		**4123**		3685		2678		**6363**

Daily Totals

NB	SB	Combined
5076	5410	**10486**

	AM			PM		
Split %	33.7%	66.3%	**39.3%**	57.9%	42.1%	**60.7%**
Peak Hour	8:45	8:45	**8:45**	15:30	15:00	**15:15**
Volume	375	899	**1274**	639	503	**1088**
P.H.F.	0.77	0.63	**0.67**	0.84	0.86	**0.82**

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Wednesday, January 07, 2026 CITY: La Habra PROJECT: SC5828

ADT3 E La Habra Blvd east of N Palm St.

Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	EB		WB			PM Period	EB		WB		
0:00	12		21			12:00	128		205		
0:15	20		17			12:15	146		172		
0:30	11		22			12:30	154		166		
0:45	9	52	18	78	130	12:45	154	582	157	700	1282
1:00	6		16			13:00	133		171		
1:15	10		7			13:15	174		199		
1:30	15		13			13:30	156		223		
1:45	8	39	11	47	86	13:45	195	658	183	776	1434
2:00	5		13			14:00	163		189		
2:15	11		4			14:15	148		192		
2:30	13		10			14:30	163		241		
2:45	19	48	10	37	85	14:45	152	626	220	842	1468
3:00	4		12			15:00	158		228		
3:15	17		8			15:15	180		251		
3:30	35		17			15:30	98		240		
3:45	33	89	14	51	140	15:45	159	595	275	994	1589
4:00	38		19			16:00	167		302		
4:15	51		16			16:15	198		248		
4:30	92		40			16:30	163		281		
4:45	98	279	52	127	406	16:45	184	712	307	1138	1850
5:00	58		42			17:00	166		296		
5:15	95		55			17:15	173		283		
5:30	147		64			17:30	183		272		
5:45	146	446	91	252	698	17:45	178	700	256	1107	1807
6:00	104		106			18:00	188		257		
6:15	112		102			18:15	168		259		
6:30	148		144			18:30	160		185		
6:45	196	560	175	527	1087	18:45	147	663	211	912	1575
7:00	140		184			19:00	122		182		
7:15	183		195			19:15	122		131		
7:30	190		235			19:30	116		150		
7:45	181	694	230	844	1538	19:45	83	443	137	600	1043
8:00	174		212			20:00	105		118		
8:15	165		230			20:15	69		127		
8:30	164		193			20:30	85		110		
8:45	143	646	234	869	1515	20:45	96	355	125	480	835
9:00	158		182			21:00	106		111		
9:15	165		179			21:15	81		101		
9:30	145		183			21:30	66		73		
9:45	145	613	162	706	1319	21:45	41	294	80	365	659
10:00	140		147			22:00	47		79		
10:15	144		174			22:15	34		61		
10:30	141		141			22:30	47		64		
10:45	145	570	155	617	1187	22:45	35	163	54	258	421
11:00	139		147			23:00	31		32		
11:15	126		167			23:15	21		41		
11:30	131		185			23:30	14		42		
11:45	166	562	165	664	1226	23:45	8	74	18	133	207
Total Vol.	4598		4819		**9417**		5865		8305		**14170**

Daily Totals

EB	WB	Combined
10463	13124	**23587**

	AM			PM		
Split %	48.8%	51.2%	**39.9%**	41.4%	58.6%	**60.1%**
Peak Hour	7:15	7:30	**7:30**	17:15	16:30	**16:45**
Volume	728	907	**1617**	722	1167	**1864**
P.H.F.	0.96	0.96	**0.95**	0.97	0.95	**0.95**

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Wednesday, January 07, 2026 CITY: La Habra PROJECT: SC5828

ADT4 N Palm St north of E La Habra Blvd. Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	NB		SB			PM Period	NB		SB		
0:00	4		4			12:00	56		45		
0:15	10		2			12:15	43		49		
0:30	6		4			12:30	50		45		
0:45	6	26	2	12	38	12:45	47	196	56	195	391
1:00	2		1			13:00	64		62		
1:15	3		4			13:15	92		50		
1:30	6		1			13:30	95		107		
1:45	0	11	3	9	20	13:45	64	315	115	334	649
2:00	4		2			14:00	65		77		
2:15	0		2			14:15	59		72		
2:30	0		2			14:30	70		63		
2:45	2	6	4	10	16	14:45	83	277	61	273	550
3:00	3		4			15:00	75		71		
3:15	1		7			15:15	96		86		
3:30	4		4			15:30	149		52		
3:45	1	9	11	26	35	15:45	135	455	69	278	733
4:00	3		7			16:00	132		54		
4:15	1		18			16:15	127		67		
4:30	5		23			16:30	130		70		
4:45	1	10	26	74	84	16:45	116	505	74	265	770
5:00	2		19			17:00	159		63		
5:15	4		35			17:15	136		83		
5:30	16		38			17:30	164		50		
5:45	10	32	50	142	174	17:45	167	626	55	251	877
6:00	8		37			18:00	103		57		
6:15	21		59			18:15	93		51		
6:30	18		51			18:30	73		45		
6:45	19	66	73	220	286	18:45	81	350	39	192	542
7:00	31		62			19:00	67		34		
7:15	17		80			19:15	49		23		
7:30	47		108			19:30	54		24		
7:45	63	158	121	371	529	19:45	49	219	33	114	333
8:00	89		123			20:00	37		25		
8:15	65		114			20:15	42		27		
8:30	40		107			20:30	42		21		
8:45	48	242	82	426	668	20:45	46	167	37	110	277
9:00	44		137			21:00	44		25		
9:15	65		159			21:15	29		20		
9:30	55		95			21:30	26		12		
9:45	37	201	45	436	637	21:45	23	122	9	66	188
10:00	32		46			22:00	17		11		
10:15	30		49			22:15	16		9		
10:30	33		48			22:30	16		11		
10:45	32	127	51	194	321	22:45	18	67	13	44	111
11:00	26		39			23:00	14		8		
11:15	37		40			23:15	12		11		
11:30	35		46			23:30	12		7		
11:45	56	154	64	189	343	23:45	5	43	1	27	70
Total Vol.	1042		2109		**3151**		3342		2149		**5491**

	Daily Totals		
	NB	SB	**Combined**
	4384	4258	**8642**

	AM			**PM**		
Split %	33.1%	66.9%	**36.5%**	60.9%	39.1%	**63.5%**
Peak Hour	7:30	8:30	**7:30**	17:00	13:30	**17:00**
Volume	264	485	**730**	626	371	**877**
P.H.F.	0.74	0.76	**0.86**	0.95	0.81	**0.99**

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Wednesday, January 07, 2026 CITY: La Habra PROJECT: SC5828

ADT5 E La Habra west of N Palm St.

Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	EB		WB			PM Period	EB		WB		
0:00	9		21			12:00	162		204		
0:15	23		18			12:15	160		172		
0:30	11		17			12:30	167		171		
0:45	10	53	18	74	127	12:45	157	646	169	716	1362
1:00	10		19			13:00	159		206		
1:15	9		6			13:15	190		202		
1:30	13		14			13:30	192		234		
1:45	7	39	13	52	91	13:45	222	763	233	875	1638
2:00	6		12			14:00	186		214		
2:15	9		7			14:15	171		205		
2:30	13		10			14:30	183		260		
2:45	19	47	13	42	89	14:45	174	714	224	903	1617
3:00	6		11			15:00	187		231		
3:15	14		8			15:15	238		253		
3:30	35		19			15:30	257		279		
3:45	33	88	15	53	141	15:45	232	914	317	1080	1994
4:00	34		18			16:00	196		311		
4:15	46		17			16:15	226		251		
4:30	89		39			16:30	204		275		
4:45	107	276	55	129	405	16:45	214	840	304	1141	1981
5:00	63		39			17:00	208		293		
5:15	95		62			17:15	188		280		
5:30	138		65			17:30	180		296		
5:45	150	446	91	257	703	17:45	177	753	271	1140	1893
6:00	112		103			18:00	196		245		
6:15	96		111			18:15	210		263		
6:30	136		133			18:30	200		182		
6:45	211	555	168	515	1070	18:45	174	780	204	894	1674
7:00	169		195			19:00	148		189		
7:15	203		224			19:15	132		142		
7:30	201		247			19:30	130		145		
7:45	242	815	236	902	1717	19:45	96	506	125	601	1107
8:00	205		231			20:00	91		112		
8:15	222		224			20:15	78		128		
8:30	176		232			20:30	101		111		
8:45	178	781	220	907	1688	20:45	92	362	136	487	849
9:00	227		191			21:00	102		121		
9:15	298		191			21:15	76		115		
9:30	184		217			21:30	69		74		
9:45	150	859	144	743	1602	21:45	50	297	71	381	678
10:00	139		145			22:00	53		73		
10:15	157		200			22:15	37		69		
10:30	146		145			22:30	43		61		
10:45	164	606	154	644	1250	22:45	35	168	50	253	421
11:00	159		154			23:00	31		40		
11:15	143		171			23:15	20		46		
11:30	152		175			23:30	16		47		
11:45	170	624	164	664	1288	23:45	10	77	14	147	224
Total Vol.	5189		4982		**10171**		6820		8618		**15438**

Daily Totals

EB	WB	Combined
12009	13600	**25609**

	AM			PM		
Split %	51.0%	49.0%	**39.7%**	44.2%	55.8%	**60.3%**
Peak Hour	8:45	7:15	**7:30**	15:15	16:45	**15:15**
Volume	887	938	**1808**	923	1173	**2083**
P.H.F.	0.74	0.95	**0.95**	0.93	0.96	**0.95**

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Appendix B – ITE Trip Generation Reports

High School
(525)

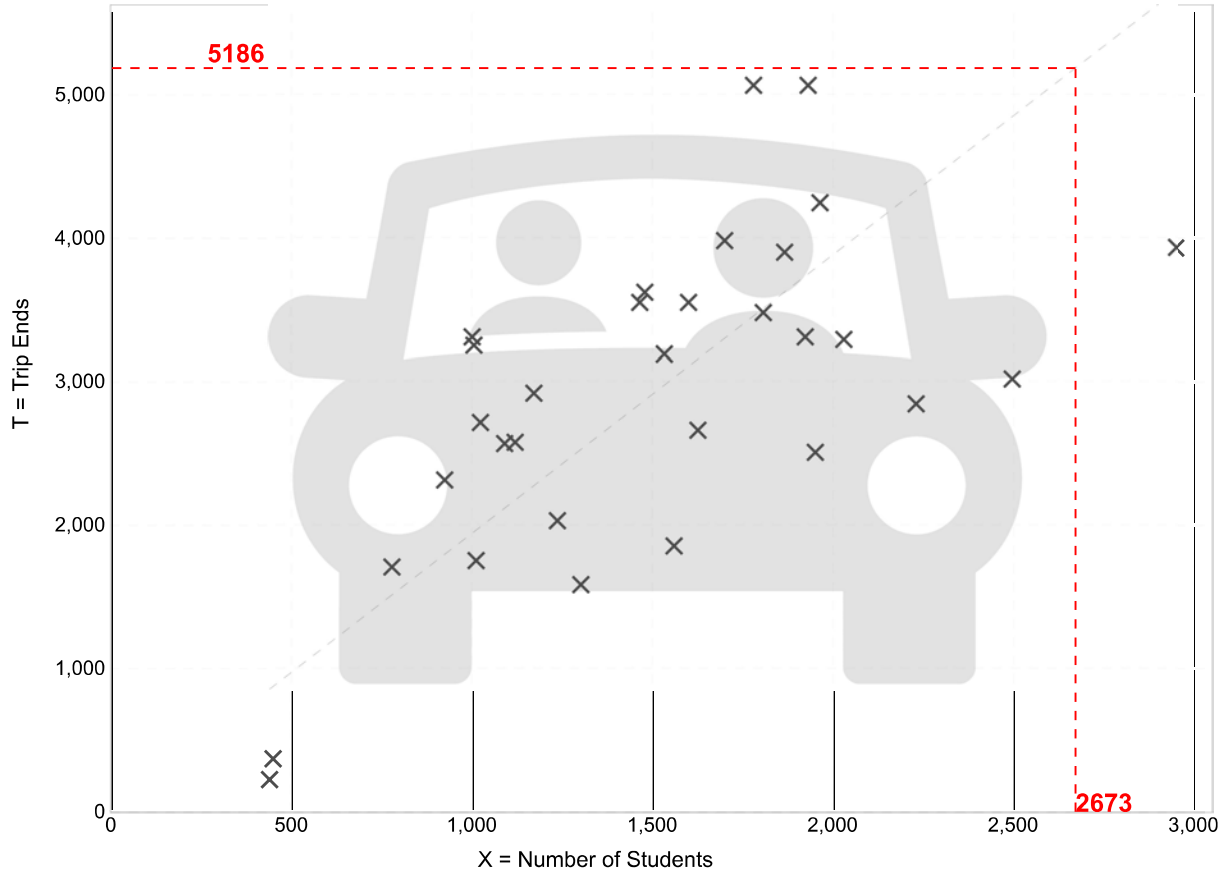
Vehicle Trip Ends vs: **Students**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Students: 1498
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
1.94	0.51 - 3.30	0.61

Data Plot and Equation



× **Study Site** **Average Rate**

Fitted Curve Equation: Not Given **R^2= ****

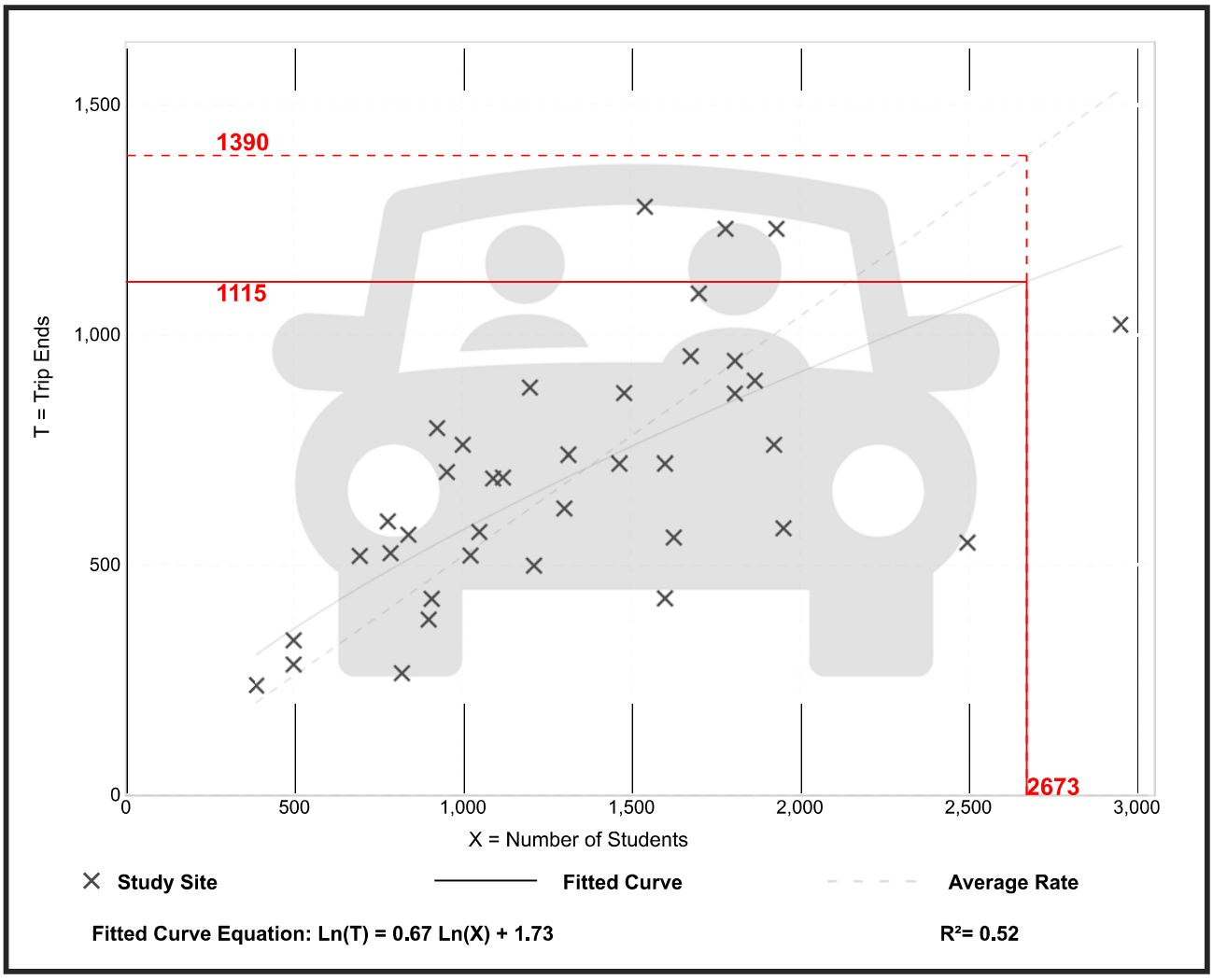
High School
(525)

Vehicle Trip Ends vs:	**Students**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	38
Avg. Num. of Students:	1329
Directional Distribution:	68% entering, 32% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.52	0.22 - 0.86	0.17

Data Plot and Equation



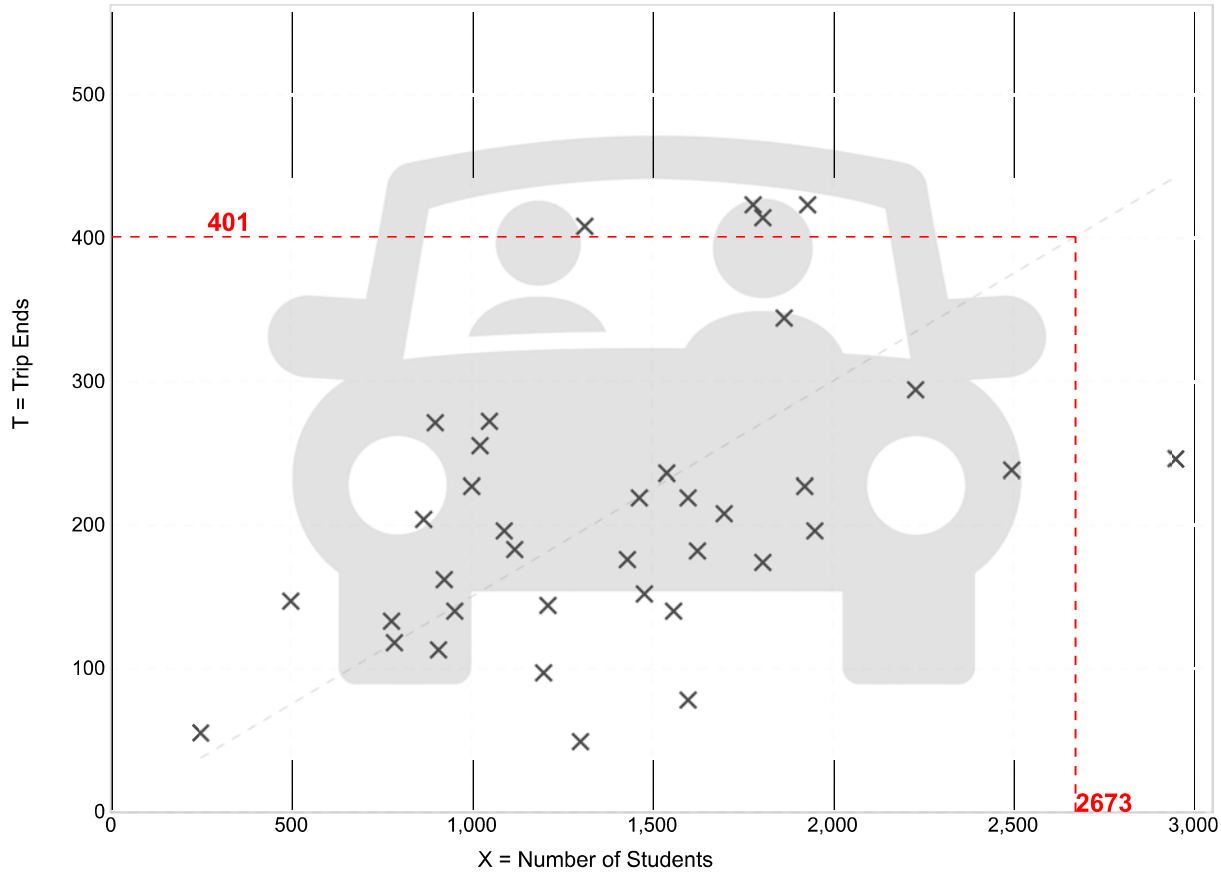
High School
(525)

Vehicle Trip Ends vs:	**Students**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. Num. of Students:	1404
Directional Distribution:	48% entering, 52% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.15	0.04 - 0.31	0.07

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

High School
(525)

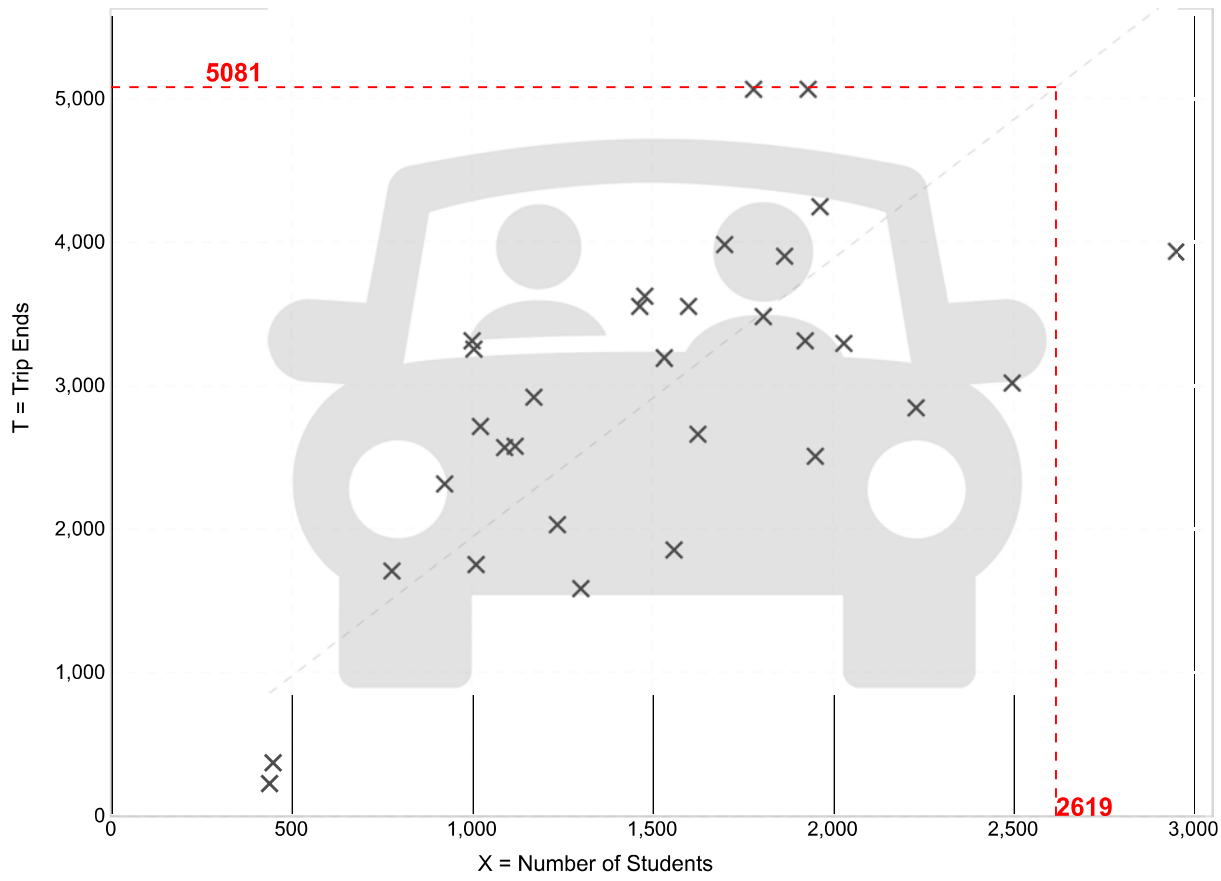
Vehicle Trip Ends vs: **Students**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Students: 1498
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
1.94	0.51 - 3.30	0.61

Data Plot and Equation



× **Study Site** **Average Rate**

Fitted Curve Equation: Not Given **R^2= ****

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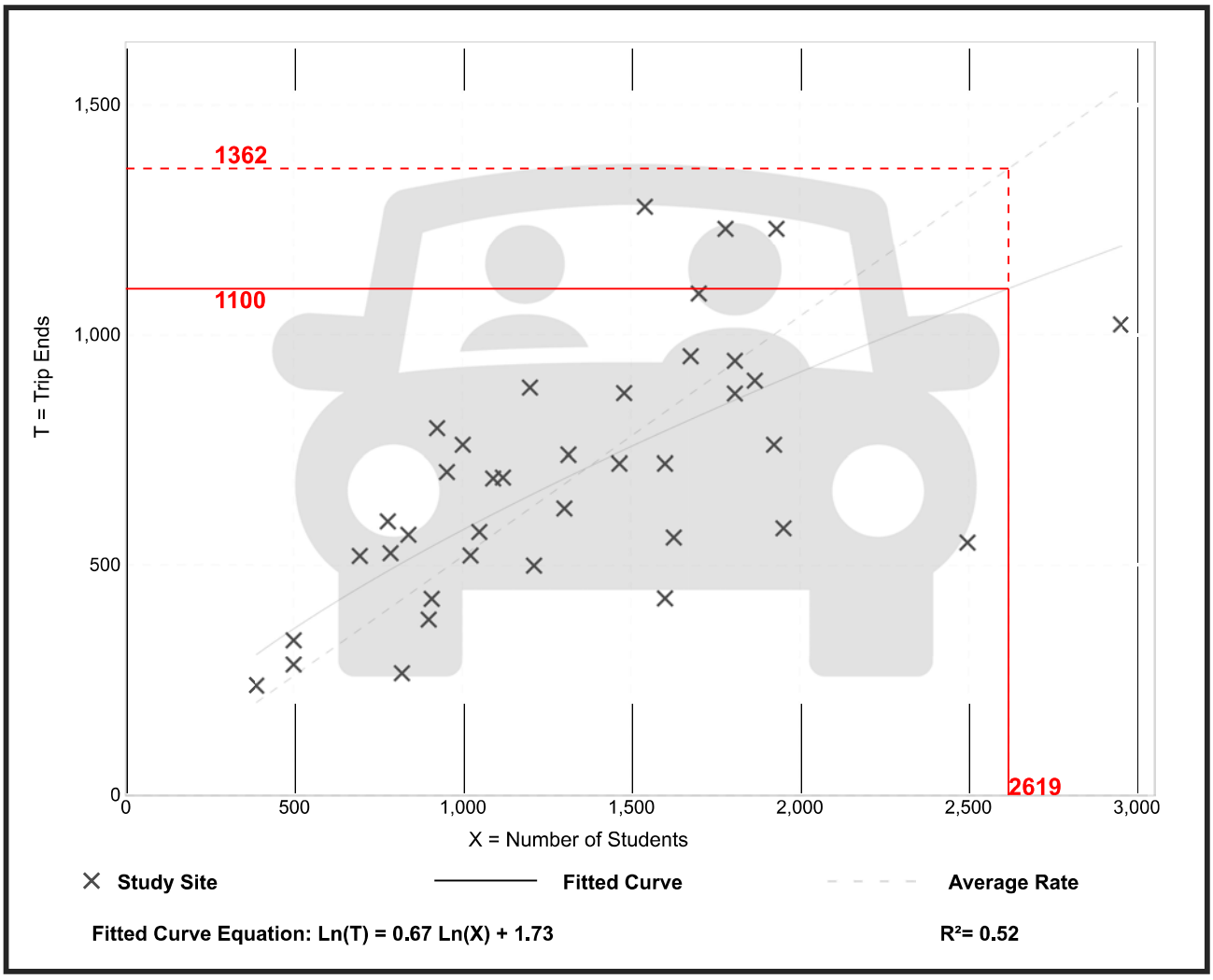
High School
(525)

Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 38
Avg. Num. of Students: 1329
Directional Distribution: 68% entering, 32% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.52	0.22 - 0.86	0.17

Data Plot and Equation



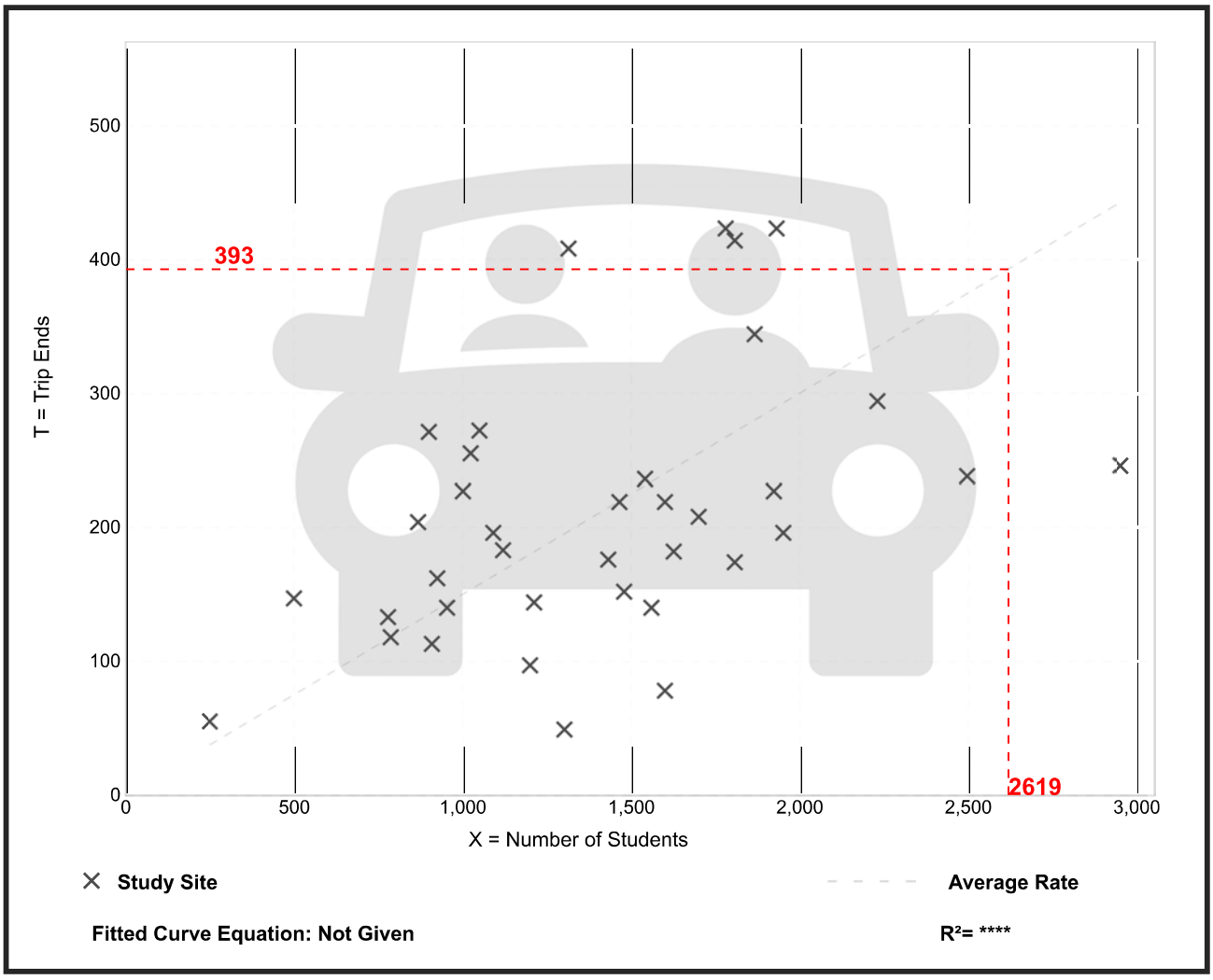
High School
(525)

Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 37
Avg. Num. of Students: 1404
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.15	0.04 - 0.31	0.07

Data Plot and Equation



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APPENDIX E SACRED LANDS FILE REQUEST

APPENDIX

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NATIVE AMERICAN HERITAGE COMMISSION

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Chumash

VICE-CHAIRPERSON
Buffy McQuillen
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Andrew Alejandre
Paskenta Band of Nomlaki Indians

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

January 28, 2026

Angel Castro
Placeworks, Inc.

Via Email to: acastro@placeworks.com

Re: Sonora High School Match & Science Classroom Building Modernization and Field Improvements Project, Orange County

To Whom It May Concern:

As requested, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were positive. Please contact the Juaneno Band of Mission Indians Acjachemen Nation – Belardes on the attached list for more information. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes that are traditionally and culturally affiliated with the project's geographic area. Please contact all of the listed tribes as they may have information about sacred sites within the project area that is not listed with the NAHC.

If within two weeks of notification, a response has not been received, the Commission requests that you follow up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please inform the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) information center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment