Long Beach Unified School District

POLY HIGH SCHOOL
FIELD IMPROVEMENTS PROJECT

January 2026 | Addendum to the
Initial Study/Mitigated Negative Declaration for the
Polytechnic High School Transformation Project

SCH #: 2025020912



January 2026 | Addendum to the
Initial Study/Mitigated Negative Declaration for the
Polytechnic High School Transformation Project
SCH #: 2025020912

POLY HIGH SCHOOL FIELD IMPROVEMENTS PROJECT

for Long Beach Unified School District

Prepared for:

Long Beach Unified School District
Contact: Dana Grudem, Senior Program Manager
2425 Webster Avenue
Long Beach, California 90810
562.997.8000

Prepared by:

PlaceWorks
700 South Flower Street, Suite 600
Los Angeles, California 90017
213.623.1443
www.placeworks.com

TABLE OF CONTENTS

Environmental Checklist **1**
Project Information 1
Environmental Factors Potentially Affected 2
Determination 3

1. Introduction **1-1**
1.1 Background, Purpose, and Scope 1-1
1.2 Environmental Procedures 1-2
1.3 Prior Environmental Documentation 1-4

2. Project Description **2-1**
2.1 Project Location and Site Characteristics 2-1
2.2 Project Goals and Objectives 2-9
2.3 Description of the Proposed Project 2-9
2.4 Project Construction Characteristics 2-21
2.5 Project Operational Characteristics 2-21
2.6 Project Approvals 2-23

3. Environmental Analysis **3-1**
3.1 Aesthetics 3-1
3.2 Agriculture and Forestry Resources 3-11
3.3 Air Quality 3-16
3.4 Biological Resources 3-26
3.5 Cultural Resources 3-33
3.6 Energy 3-39
3.7 Geology and Soils 3-45
3.8 Greenhouse Gas Emissions 3-54
3.9 Hazards and Hazardous Materials 3-74
3.10 Hydrology and Water Quality 3-84
3.11 Land Use and Planning 3-93
3.12 Mineral Resources 3-96
3.13 Noise 3-99
3.14 Population and Housing 3-111
3.15 Public Services 3-114
3.16 Recreation 3-118
3.17 Transportation 3-121
3.18 Tribal Cultural Resources 3-127

3.19 Utilities and Service Systems 3-133
3.20 Wildfire 3-141

4. Findings 4-1
4.1 Discussion 4-1
4.2 Conclusion 4-4

5. List of Preparers 5-1

6. References 6-1

APPENDICES

Appendix A Air Quality and Greenhouse Gas Modeling Appendix
Appendix B Noise Modeling Appendix

List of Figures

Figure 1 Project Location and Vicinity 2-3
Figure 2 Project Site and Poly HS Campus 2-5
Figure 3 Project Site and Surrounding Area Photographs 2-7
Figure 4 Proposed Site Plan 2-11
Figure 5 Project Site Rendering: View from 16th Street 2-13
Figure 6 Project Site Rendering: View from Long Beach Boulevard 2-15
Figure 7 Proposed Lighting Equipment Layout 2-19
Figure 8 Horizontal and Vertical Light Spills 3-9

List of Tables

Table 1 Summary of Lighting Equipment 2-17
Table 2 General Light Levels Benchmark 3-6
Table 3 Maximum Daily Regional Construction Emissions 3-21
Table 4 Localized Construction Emissions 3-23
Table 5 Electricity Consumption 3-43
Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist 3-58
Table 7 Consistency Analysis with the City of Long Beach CAAP Actions 3-66
Table 8 Project-Related Operation GHG Emissions 3-72
Table 9 City of Long Beach Exterior and Interior Noise Limits: District 2 3-103
Table 10 Project-Related Construction Noise Levels 3-106
Table 11 Proposed Project's Vibration Levels 3-109

ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

Project Title: Poly High School Field Improvements Project

Lead Agency Name and Address:
Long Beach Unified School District
2425 Webster Avenue
Long Beach, CA 90810

Contact Person and Phone Number:
Dana Grudem, Senior Program Manager
562.997.8000

Project Location:
The project site encompasses the Poly Academy of Achievers and Leaders (PAAL) campus at 1545 Long Beach Boulevard (Assessor's Parcel Number [APN] 7269-017-902) in the City of Long Beach, Los Angeles County. The PAAL campus is an annex site to Poly High School, which is at 1600 Atlantic Avenue, Long Beach, Los Angeles County.

Project Sponsor's Name and Address:
Long Beach Unified School District
2425 Webster Avenue
Long Beach, CA 90810

General Plan Designation: Transit-Oriented Development Moderate Density (TOD-M).

Zoning: Specific Plan–Midtown Specific Plan District (SP-1).

Description of Project:
The Poly High School Field Improvements Project (proposed project) would demolish all existing structures, landscaping, and pavement at the project site associated with the PAAL campus and would redevelop the PAAL campus with a replacement multipurpose softball field to serve Long Beach Poly High School (Poly HS), which is undergoing improvements pursuant to the Polytechnic High School Transformation Project (approved project) Initial Study/Mitigated Negative Declaration (IS/MND) (Approved MND) and corresponding Mitigation Monitoring Reporting Program (MMRP) (State Clearinghouse No. 2025020912). The existing PAAL program

would be relocated to Poly HS. The proposed project would develop a new replacement multipurpose softball field with two 60-foot combination batting cages/bullpens; one designated team area; two 3-row bleachers (100-spectator capacity); two dugouts; and a new scoreboard at the project site. Five new lighting poles with Musco lighting would be installed around the proposed field; each new lighting pole would also have two speakers. Field lighting would be used as needed during night games and evening practices. One modular building would be installed and used for concession, storage, and restroom facilities.

The proposed project would include asphalt striping improvements to both parking lots immediately west of the project site to include parking spaces compliant with the Americans with Disabilities Act (ADA).

Surrounding Land Uses and Setting:
Existing uses surrounding the project site include multi-family residential uses to the west and commercial retail uses to the north, east, and south.

Other Public Agencies Whose Approval Is Required (e.g., Permits, Financing Approval, or Participating Agreement):
City of Long Beach Utility Department (LBUD)
State Water Resources Control Board (SWRCB)
City of Long Beach Public Works
Division of the State Architect (DSA)

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.?
Under PRC Section 21080.3.1(b), the proposed project does not constitute a new project requiring circulation of a new Notice of Intent under CEQA; therefore, Assembly Bill (AB) 52 consultation is not required. The District previously completed AB 52 consultation for the Polytechnic High School Transformation Project in accordance with PRC Sections 21080.3.1 to 21080.3.2. The mitigation measures identified in the Approved MND would also be implemented for the proposed project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Chapter 3 of this document summarizes the environmental impact conclusions of the Adopted MND and concludes that the proposed project meets the conditions described in State CEQA Guidelines Section 15164 for preparation of an Addendum.

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.

Dana Grudem — 1/21/26

Signature — Date

Dana Grudem, Senior Program Manager

This page is intentionally left blank.

1. INTRODUCTION

1.1 BACKGROUND, PURPOSE, AND SCOPE

This document is an addendum to the Polytechnic High School Transformation Project Initial Study/Mitigated Negative Declaration (IS/MND) and corresponding Mitigation Monitoring Reporting Program (MMRP) (State Clearinghouse No. 2025020912) adopted in May 2025 (Adopted MND). This addendum has been prepared in accordance with the California Environmental Quality Act (CEQA)—Public Resources Code (PRC) Division 13—and Sections 15162 and 15164 of the State CEQA Guidelines. The Long Beach Unified School District (District) is currently making improvements at the Long Beach Poly High School (Poly HS) campus in accordance with the Polytechnic High School Transformation Project (approved project). The improvements include the construction of a new three-story classroom building over the existing softball field at Poly HS, which was used for sports periods, practices, and games. As a result of these planned improvements to Poly HS, which were the subject of the Adopted MND, the athletic softball field facility must be relocated.

The District has identified the Poly Academy of Achievers and Leaders (PAAL) campus, which is an annex site to Poly HS, as severely underutilized. Therefore, the PAAL campus has been identified as the replacement site for the multipurpose softball field that will be removed as part of the approved project. The Poly High School Field Improvements Project (proposed project) is intended to serve the same purpose as the existing Poly HS campus multipurpose softball field removed from the Poly HS campus and would serve the existing student population and is necessary to implement the approved project. The District will consider approval of the proposed redevelopment of the PAAL campus at 1545 Long Beach Boulevard with a multipurpose softball field to serve Poly HS. The District is the lead agency for this addendum to the Adopted MND for the proposed redevelopment of the PAAL campus.

Improvements under the approved project included development of new classroom buildings on top of the existing athletic fields and new or renovated athletic facilities. A specific location for the new or renovated athletic facilities was not identified in the Adopted MND.[1] The proposed project involves the replacement of the existing softball field facility at an off-site location that is not within the physical boundaries evaluated in the Adopted MND. State CEQA Guidelines Section 15164 allows for lead agencies to prepare an addendum for project modifications, provided the changes do not result in new significant environmental impacts or

[1] Refer to page 6 of the Final Initial Study/Mitigated Negative Declaration for Polytechnic High School Transformation Project for a description of the reconstructed athletic field.

substantially more severe impacts than those previously disclosed. Pursuant to CEQA Guidelines Sections 15162 and 15164 and Public Resources Code PRC Section 21166, an addendum is appropriate when the project changes remain consistent with the scope and intent of the approved project and do not trigger the conditions requiring a subsequent or supplemental environmental document. As demonstrated in this Addendum, the reconstruction of the Poly HS softball and multipurpose field on the PAAL campus would not introduce new or more severe environmental effects, would continue to serve the same student population, and would serve as a multipurpose softball field as intended under the approved project; therefore, CEQA supports use of an addendum for this off-site modification to the approved project.

1.2 ENVIRONMENTAL PROCEDURES

Pursuant to CEQA (Public Resources Code Sections 21000 et seq.) and the State CEQA Guidelines, this addendum focuses on whether implementation of the proposed project would require major revisions to the Adopted MND due to the potential for new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Pursuant to Sections 15162 and 15164 of the State CEQA Guidelines, when an EIR has been certified or a negative declaration adopted for a project, no subsequent or supplemental EIR need be prepared for the project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    - The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

- Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;
- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. (State CEQA Guidelines Section 15162[a]).

A supplement to an EIR (supplemental EIR), which is narrower in scope than a subsequent EIR, may be prepared if any of the above criteria apply but "only minor changes or additions would be necessary to make the previous EIR adequately apply to the project in the changed situation" (State CEQA Guidelines Section 15163(a)). In the absence of the need to prepare either a subsequent or supplemental EIR, an addendum to a previously Certified EIR or adopted negative declaration may be prepared. Section 15164 states:

1. The lead agency or a responsible agency shall prepare an addendum to a previously Certified EIR or adopted negative declaration if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.
2. An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
3. An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
4. The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
5. A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence (State CEQA Guidelines Section 15164).

This addendum demonstrates that the proposed project would not result in any of the conditions in State CEQA Guidelines Sections 15162(a)(1) to (3). The proposed changes would

not require major revisions to the Adopted MND or result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects that would require major revisions to the Adopted MND. Thus, the impacts of the proposed project are within the scope of environmental impacts disclosed in the Adopted MND.

Also, no information that was not known and could not have been known at the time the Adopted MND was prepared has come to light that shows new or substantially greater significant impacts would result (see State CEQA Guidelines Section 15162[a][3]). The proposed project would not introduce new or different mitigation measures that would substantially reduce one or more significant impacts of the approved project but that are not adopted. The proposed project does not identify or require adoption of any further mitigation measures beyond those in the Adopted MND.

This Addendum provides the substantial evidence required by State CEQA Guidelines Section 15164(e) to support the finding that a subsequent or supplemental EIR is not required and that an addendum to the Adopted MND is the appropriate environmental document to address changes associated with the proposed project. Since this Addendum does not identify new or substantially greater significant impacts, circulation for public review and comment is not required (State CEQA Guidelines Section15164[c]). The District will consider this Addendum, including a Mitigation Monitoring and Reporting Program that reflects the applicable previously adopted mitigation measures from the Adopted MND, at the District Board of Education hearing, together with the previously Adopted MND, prior to the adoption of the proposed project (State CEQA Guidelines Section 15164[d]).

1.3 PRIOR ENVIRONMENTAL DOCUMENTATION

The Polytechnic High School Transformation Project was approved by the Long Beach Unified School District on May 19, 2025 (approved project), and the Notice of Determination for the Adopted MND was filed with the County of Los Angeles Clerk-Recorder on May 20, 2025. The objectives of the approved project are for the District to conduct upgrades pertaining to repairs, technology, air conditioning, and safety at Poly HS to improve classroom conditions, provide up to date equipment for student use, and create a safe educational environment. The project site analyzed for the approved project is at Poly HS, at 1600 Atlantic Avenue in the City of Long Beach, California. The approved project site encompasses the southern portion of Poly HS, bounded by Jackrabbit Lane and the baseball field to the north, Atlantic Lane to the west, Martin Luther King Jr. Avenue to the east, and E 15th Street to the south. The approved project site is approximately 0.3 mile east of the project site analyzed in this MND Addendum. Specific improvements associated with the approved project included the following.

- **Repairs.** Due to several District campuses being built 60 to 80 years ago, the outdated buildings require repairs to meet American with Disabilities Act (ADA) accessibility requirements; meet fire and life safety standards; and improve on-site building conditions

and utilities such as leaking roofs, damaged ceilings, restroom replacement, electrical and plumbing upgrades, lighting improvements, and security upgrades.

- **Technology**. Improvements will include audiovisual integration upgrades for classrooms, libraries, auditoriums, and multipurpose rooms.
- **Air Conditioning**. Air-conditioning equipment will be upgraded with modern, energy-efficient systems to improve classroom conditions and prevent class cancellations due to overheated classrooms.
- **Safety**. Improvements to indoor and outdoor areas include upgrades to the fire alarm system and improvements to recreational areas such as the multipurpose softball field and gym to provide students with access to safe, supervised activities apart from the daily classroom schedule.

The approved project includes demolition of eight existing buildings: buildings 150, 550, 700, 750, 800, 850, 950, and the gymnasium. The approved project includes the construction of a new three-story classroom building as well as heating, ventilation, and air conditioning (HVAC) and technology modernization in seven existing buildings. The approved project's safety objective, above, states that, "improvements to indoor and outdoor areas include upgrades to the fire alarm system and improvements to recreational areas such as the sports field and gym to provide students with access to safe, supervised activities apart from the daily classroom schedule." The existing multipurpose softball field adjacent to E 15th Street was approved for demolition and replacement with a new three-story classroom building, as described on pages 5 and 8 of the Final MND for the approved project. As a result, Poly HS would no longer have a multipurpose softball field on campus. Additionally, the approved project includes the construction a new drama/band building (building 150), a three-story classroom building (building 1000), a two-story gymnasium building (building 800), an aquatic center with a pool and support facilities (building 850), a two-story administration/classroom/wellness building (building 700), a reconstructed baseball field/multipurpose field and student pick-up and drop-off along Jackrabbit Lane. The approved project is intended to repair and upgrade school facilities for the existing student population and included the redevelopment of the multipurpose softball field.

The Adopted MND determined that the approved project would result in less-than-significant impacts with no mitigation with regard to Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire.

The Adopted MND determined that the approved project would require the implementation of mitigation measures to reduce potentially significant impacts to less-than-significant levels for Cultural Resources, Geology and Soils, Noise, and Tribal Cultural Resources. The adopted MMRP establishes the procedures and responsibilities for implementing and verifying compliance with these mitigation measures. The Adopted MND determined that the approved project would not result in any significant and unavoidable impacts.

2. PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SITE CHARACTERISTICS

The PAAL campus is at 1545 Long Beach Boulevard (APN 7269-017-902) in the City of Long Beach (City), Los Angeles County (see Figure 1*, Project Location and Vicinity*). It is a 1.9-acre property that is developed with the PAAL facility and two noncontiguous surface parking lots west of the PAAL campus (project site). The PAAL campus and surface parking lots are owned by the District and are an annex site to the Poly HS campus, which is approximately 0.3 mile, or two blocks, to the east (see Figure 2, *Project Site and Poly HS Campus*). Regional access to the project site is provided by Interstate 710 (I-710), approximately 1 mile to the west, and State Route 1 (SR-1), 0.18 mile to the north.

At the local level, the project site is in the southwestern portion of the city. Specifically, the project site is at the southwest corner of the intersection of East 16th Street and Long Beach Boulevard and is within the boundaries of the City of Long Beach Midtown Specific Plan area. As shown in Figure 1, the local roadways that surround the project site include East 16th Street to the north, East 15th Street to the south, Long Beach Boulevard to the east, and North Palmer Court (alley) to the west.

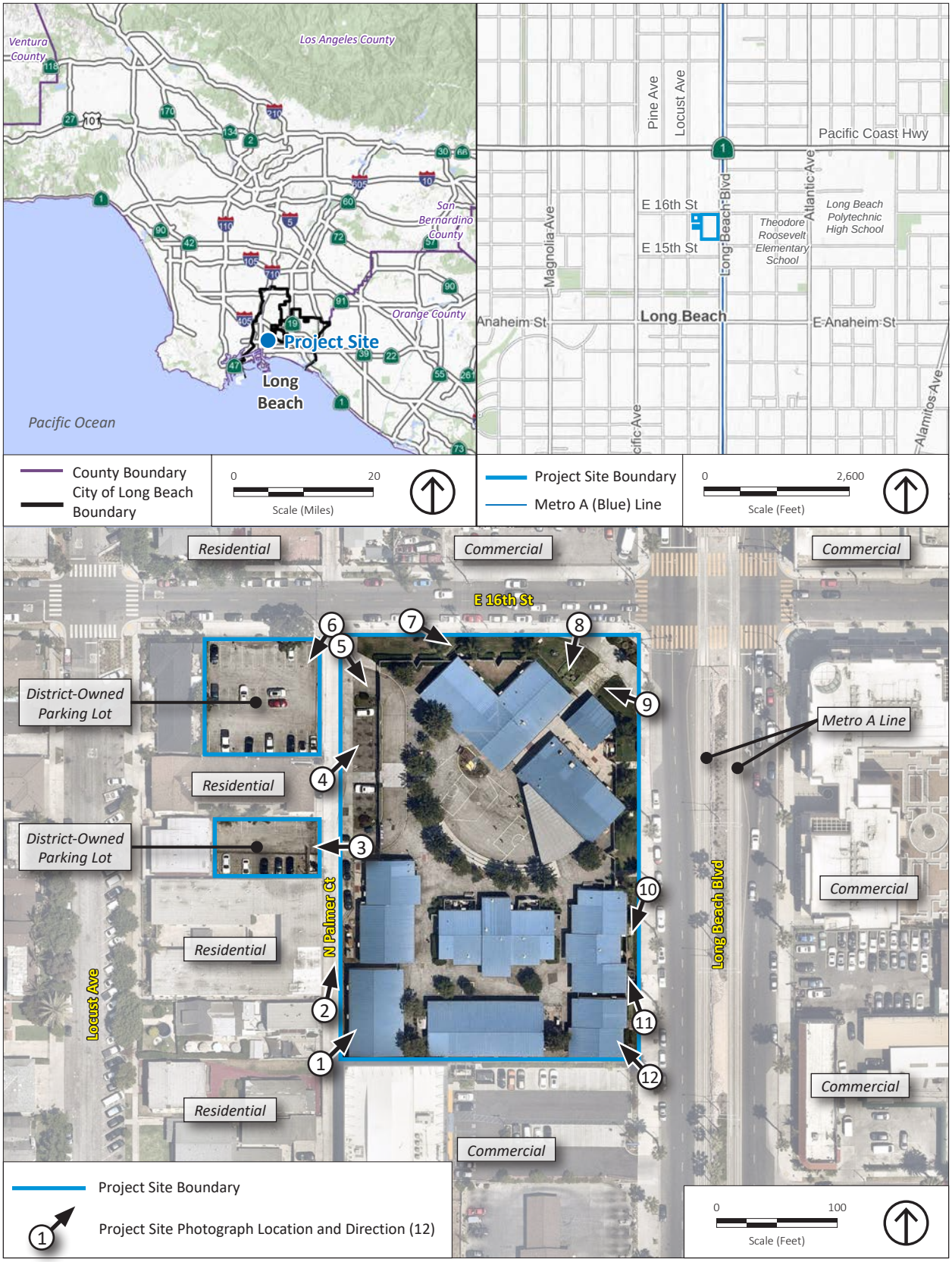
2.1.1 Project Background

PAAL campus functions as a continuation high school for 11th- and 12th-grade students who choose an alternative to remaining at Poly HS; the program supports approximately 130 students earning a Poly HS diploma. The District proposes to close the PAAL facility at the project site and relocate its operations, including students and staff, to existing facilities at the nearby Poly HS campus. The project site would then be redeveloped with a new multipurpose softball field, replacing the facilities removed on the Poly HS campus pursuant to the approved project. At the time this MND Addendum was prepared, the approved project was under construction at the Poly HS campus. The new classrooms proposed under the approved project have been constructed at the location of the existing baseball field, and the multipurpose softball field at Poly HS has been graded, which triggers the need for new athletic facilities to serve Poly HS. Current uses at the PAAL campus would be relocated to existing facilities at the Poly HS campus.

2.1.2 Existing and Surrounding Land Uses

The project site is fully developed with facilities that house the PAAL program—nine modular buildings (30,000 square feet [sf] total), shade structures, landscaping, and pavement (totaling 56,000 sf) (see Figure 3, *Project Site and Surrounding Area Photographs*). A total of 48 parking stalls are dedicated to the PAAL facility. Nine parking stalls along the northwestern boundary of the campus are reserved for staff, and two surface parking lots to the west of the project site support the PAAL facility. One parking lot is at the frontage of East 16th Street, near the northernmost existing project site driveway, and the other parking lot is between two apartment buildings near the southernmost existing project site driveway. The northern parking lot consists of 28 parking stalls, and the southern parking lot consists of 11 parking stalls. The northern parking lot has five light poles, the southern parking lot has two light poles, and these existing light poles down-shielded. According to the City of Long Beach General Plan, the project site is designated Transit-Oriented Development Moderate Density (TOD-M) with a Specific Plan and/or Downtown Plan Boundaries overlay. Additionally, the project site is zoned Specific Plan-Midtown Specific Plan District (SP-1). It should be noted that the existing facility is currently connected to existing wet utility infrastructure and electrical infrastructure. The Long Beach Utilities Department provides utility services to the existing facility.

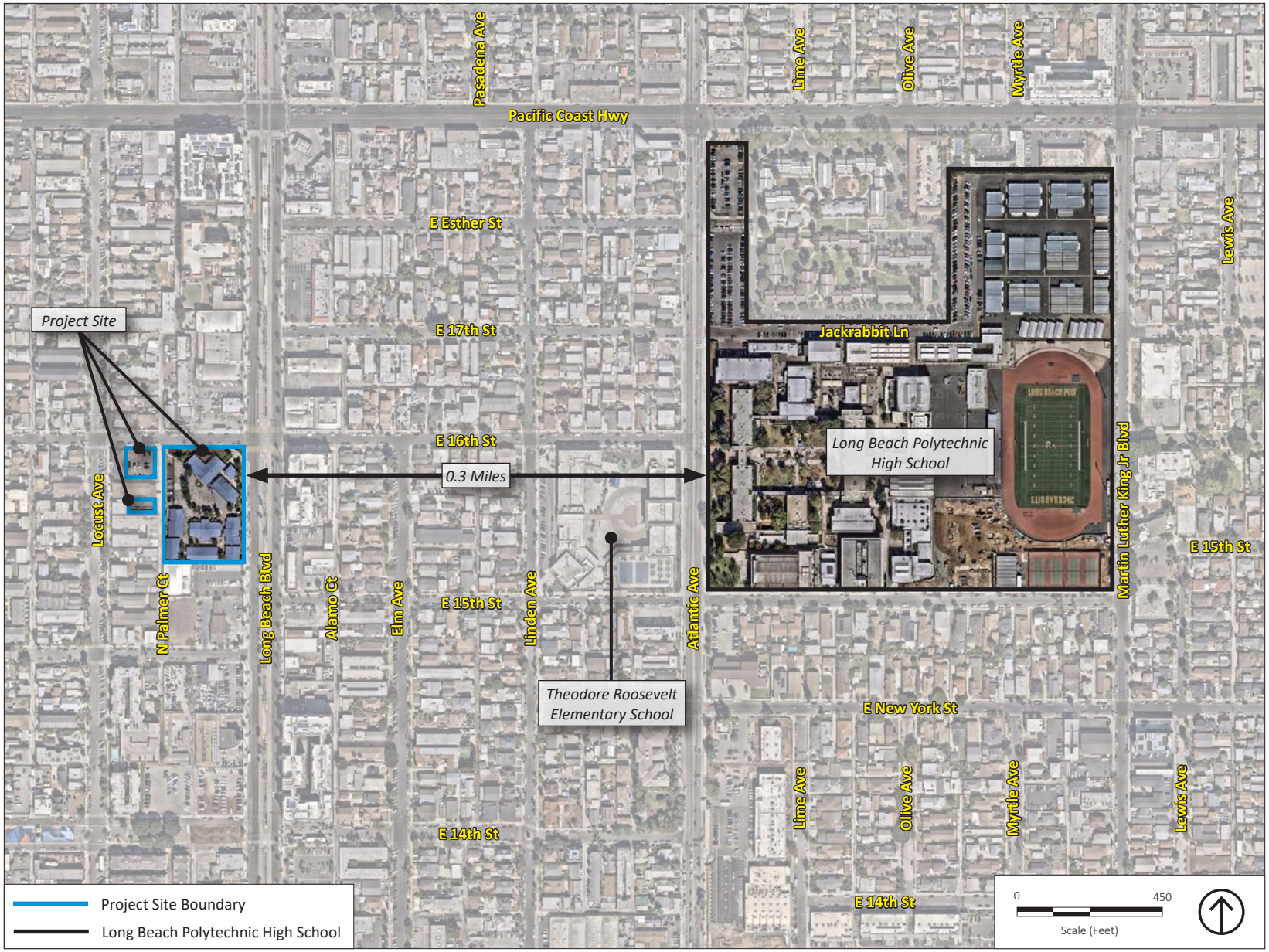
Existing uses surrounding the project site include residential uses to the west and commercial retail uses to the north, east, and south within the boundaries of the Long Beach Midtown Specific Plan area. The properties to the north across East 16th Street are fully developed with commercial retail uses (auto repair shop and restaurant), asphalt-paved parking lot, hardscape, and ornamental landscaping. The properties to the south, adjacent to the project site, are developed with commercial uses (car wash and medical center), asphalt-paved parking lot, and ornamental landscaping. The properties to the east across Long Beach Boulevard are developed with commercial uses (auto repair shop, offices, and commercial), asphalt-paved parking lots, and ornamental landscaping. The property to the west, on the opposite side of North Palmer Court, is developed with multifamily residential uses. Window placements for the adjacent multifamily residential buildings are no higher than 20 feet from the ground.



Source: Generated using ArcMap 2025.

Figure 1
Project Location and Vicinity

This page left intentionally blank.



Source: Nearmap 2025.

Figure 2
Project Site and Poly HS Campus

This page left intentionally blank.



Photo 1 – From North Palmer Court at the southwest corner of the project site, looking northeast at the southwestern most structure on the project site.



Photo 2 – From North Palmer Court along the western boundary of the project site, looking northeast towards existing on-site structures.



Photo 3 – From North Palmer Court along the western boundary of the project site, looking west towards the existing southwestern parking lot.



Photo 4 – From North Palmer Court along the western boundary of the project site, looking northeast towards fencing and structures on the project site.



Photo 5 – From North Palmer Court at the northwest corner of the project site, looking southeast towards the northwest entry gate.



Photo 6 – From North Palmer Court at the northwest corner of the project site, looking southwest towards the existing northwestern parking lot.



Photo 7 – From 16th Street along the northern boundary of the project site, looking southeast along the existing on-site structures and landscaping.



Photo 8 – From 16th Street at the northeast corner of the project site, looking south towards the northeastern entry gate.



Photo 9 – From Long Beach Boulevard at the northeast corner of the project site, looking northwest towards the northeastern entry gate.



Photo 10 – From Long Beach Boulevard along the eastern boundary of the project site, looking southwest towards existing on-site structures.



Photo 11 - From Long Beach Boulevard along the eastern boundary of the project site, looking northwest towards existing on-site structures.



Photo 12 – From Long Beach Boulevard at the southeast corner of the project site, looking northwest towards existing fencing and structures along the southern boundary of the project site.

Source: PlaceWorks 2025.

Figure 3
Project Site and Surrounding Area Photographs

This page left intentionally blank.

2.2 PROJECT GOALS AND OBJECTIVES

The objective of the proposed project is to provide a replacement athletic facility for the facility that has been removed as part of the approved project to continue to support the softball and soccer programs at Poly HS, and relocate the students and staff from the PAAL campus to the Poly HS campus. The proposed project's components are detailed in the following section.

2.3 DESCRIPTION OF THE PROPOSED PROJECT

2.3.1 Project Components

The proposed project would include the demolition of all existing structures, landscaping, and pavement at the project site associated with the PAAL facility and would redevelop the project site with a multipurpose softball field to serve Poly HS and replace the existing Poly HS field removed as part of the approved project. Figure 4, *Proposed Site Plan*; Figure 5, *Project Site Rendering: View from East 16th Street*; and Figure 6, *Project Site Rendering: View from Long Beach Boulevard*, provide visual illustrations of the proposed relocated multipurpose softball field. The existing PAAL program would be relocated to existing facilities at Poly HS, and no changes to Poly HS beyond those previously approved would occur.

PAAL OPERATIONS

PAAL serves as an independent study site, and classroom periods are not traditionally structured. Typical school hours when the facility is open are from 8:45 am to 3:45 pm with four periods, but student attendance may vary. Prior to construction activities at the PAAL campus, approximately 130 students and 18 staff at the project site would be relocated to the Poly HS campus in the summer after the 2025–26 school year. Students would also have the option to attend other schools in the District, consistent with current conditions. PAAL students relocated to the Poly HS campus would continue the same schedules and curriculum. No physical changes would occur at Poly HS that have not already evaluated in the Adopted MND.

RECONSTRUCTED MULTIPURPOSE SOFTBALL FIELD

Because the construction of the proposed new classrooms under the approved project have begun at the location of the existing multipurpose softball field at Poly HS, the project site would be developed with one new multipurpose softball field for softball and soccer use and serve a similar function to the field removed at the Poly HS campus. The proposed replacement multipurpose softball field would be constructed to meet California Interscholastic Federation (CIF) field regulations for softball and would include associated field fencing and gates.

The proposed project would include two 60-foot combination batting cages/bullpens on the southern edge of the field; one designated team area would be along the western side of the field; two 3-row bleachers would be installed, one west of the field behind the teams area, and one south of the field (100-spectator capacity); two dugouts would be on either side of the home plate; and a new scoreboard would be at the eastern edge of the field.

The softball field would also be utilized as a multipurpose soccer field. Associated field goals would be striped over the proposed softball field at the northern and southern ends of the project site. The soccer field would not be CIF regulated and would be used for practice only.

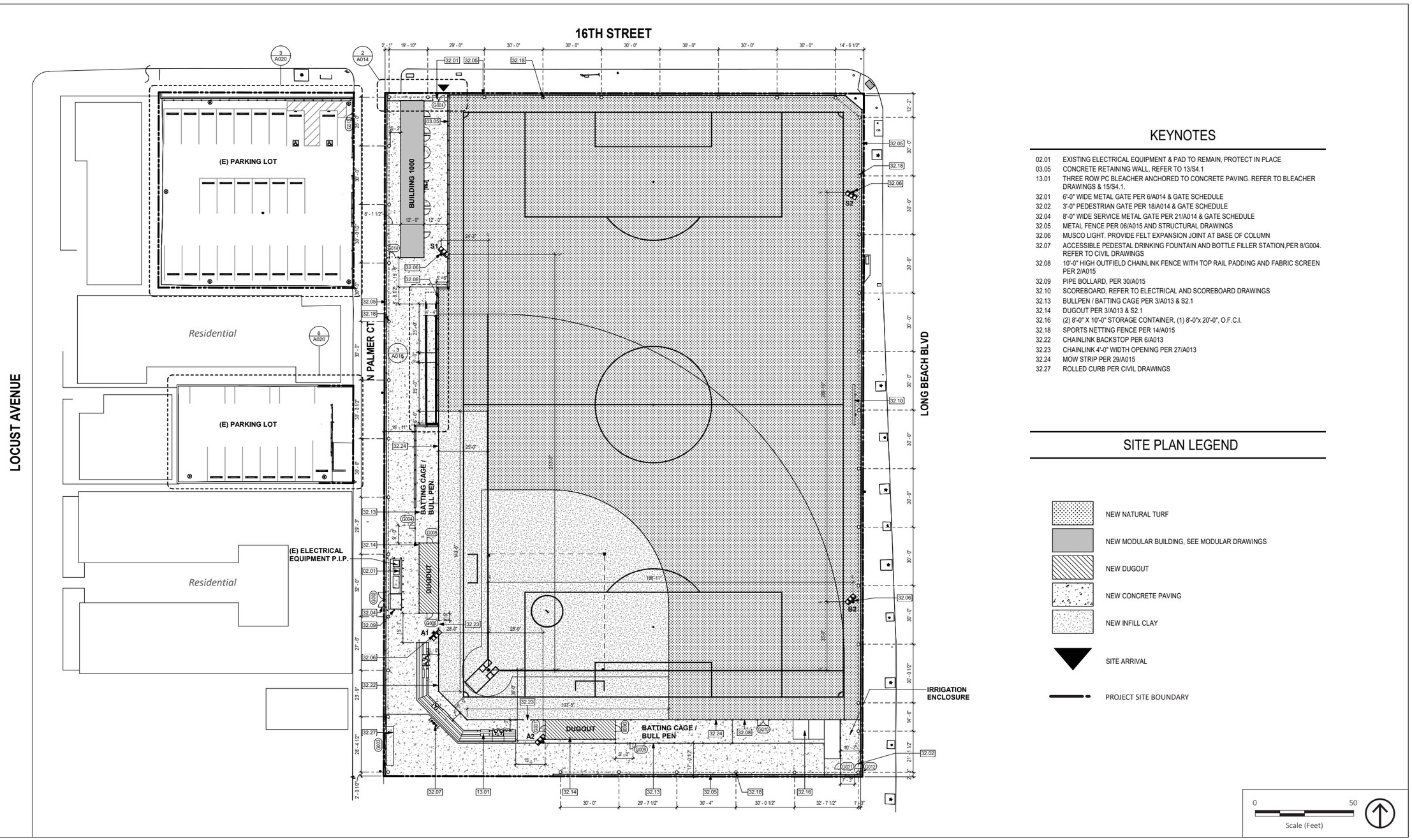
The softball and multipurpose field would consist of natural turf with a track of red clay material in the softball infield.

NEW STRUCTURES

One modular building would be installed on the northwest part of the project site and used for concession, storage, and restroom facilities. The concessions building would include a staff restroom, custodian closet, electrical room, storage, concessions area, and intermediate distribution frame (IDF) room for network equipment. The restrooms would consist of a boys' restroom with two water closets, two urinals, and two lavatories; a girls' restroom with four water closets and two lavatories; and a single, gender-neutral staff restroom.

The proposed project also includes the construction of concrete pavement areas for three outdoor storage containers; one would hold batting and team equipment, the second would hold emergency supplies, and the third would hold grounds equipment.

The proposed project would restripe the asphalt of both parking lots immediately west of the PAAL campus. The northern parking lot would be restriped to include two ADA compliance parking stalls and a striped crosswalk across North Palmer Court. The restriping would modify the configuration of the parking lot and reduce the number of spaces from 28 to 25. The southern parking lot would be restriped to include one ADA compliance parking stall. The restriping would modify the configuration of the parking lot and reduce the number of spaces from 11 to 10. A total of 35 parking spaces would be provided in these two parking lots.



KEYNOTES

02.01	EXISTING ELECTRICAL EQUIPMENT & PAD TO REMAIN, PROTECT IN PLACE
03.05	CONCRETE RETAINING WALL, REFER TO 13/S4.1
13.01	THREE ROW PC BLEACHER ANCHORED TO CONCRETE PAVING. REFER TO BLEACHER DRAWINGS & 15/S4.1.
32.01	6'-0" WIDE METAL GATE PER 6/A014 & GATE SCHEDULE
32.02	3'-0" PEDESTRIAN GATE PER 18/A014 & GATE SCHEDULE
32.04	8'-0" WIDE SERVICE METAL GATE PER 21/A014 & GATE SCHEDULE
32.05	METAL FENCE PER 06/A015 AND STRUCTURAL DRAWINGS
32.06	MUSCO LIGHT. PROVIDE FELT EXPANSION JOINT AT BASE OF COLUMN
32.07	ACCESSIBLE PEDESTAL DRINKING FOUNTAIN AND BOTTLE FILLER STATION,PER 8/G004. REFER TO CIVIL DRAWINGS
32.08	10'-0" HIGH OUTFIELD CHAINLINK FENCE WITH TOP RAIL PADDING AND FABRIC SCREEN PER 2/A015
32.09	PIPE BOLLARD, PER 30/A015
32.10	SCOREBOARD, REFER TO ELECTRICAL AND SCOREBOARD DRAWINGS
32.13	BULLPEN / BATTING CAGE PER 3/A013 & S2.1
32.14	DUGOUT PER 3/A013 & S2.1
32.16	(2) 8'-0" X 10'-0" STORAGE CONTAINER, (1) 8'-0"x 20'-0", O.F.C.I.
32.18	SPORTS NETTING FENCE PER 14/A015
32.22	CHAINLINK BACKSTOP PER 6/A013
32.23	CHAINLINK 4'-0" WIDTH OPENING PER 27/A013
32.24	MOW STRIP PER 29/A015
32.27	ROLLED CURB PER CIVIL DRAWINGS

SITE PLAN LEGEND

- NEW NATURAL TURF
- NEW MODULAR BUILDING, SEE MODULAR DRAWINGS
- NEW DUGOUT
- NEW CONCRETE PAVING
- NEW INFILL CLAY
- SITE ARRIVAL
- PROJECT SITE BOUNDARY

0 50
Scale (Feet)

Source: PBK 2025.

Figure 4
Proposed Site Plan

This page left intentionally blank.



Source: Long Beach Unified School District 2025.

Figure 5
Project Site Rendering – View from East 16th Street

This page intentionally left blank.



Source: Long Beach Unified School District 2025.

Figure 6
Project Site Rendering – View from Long Beach Boulevard

This page intentionally left blank.

FENCES

The proposed field and improvements would be enclosed by solid fencing around the perimeter with 20-foot tall sports netting. Along the western boundary (349-foot-long segment), the 20-foot tall sports netting would have an 80 percent opacity. Wrought-iron fencing and gates with 20-foot tall netting would be provided around the remaining perimeter. The pedestrian gateway entry would be on the northwestern corner of the project site. These gates would be ADA accessible. One pair of double gates would be provided along the western side of the project site that would provide access for maintenance services.

LIGHTING

Five new lighting poles, between 60 and 80 feet in height, with Musco lighting fixtures would be installed around the proposed field (see Figure 7, *Proposed Lighting Equipment Layout*). Table 1, *Summary of Lighting Equipment*, lists the proposed lighting equipment to be installed around the proposed softball and multipurpose field.

Table 1 Summary of Lighting Equipment

Quantity	Structure Identification	Height (feet)
1	A1	60
1	A2	60
1	B2	70
1	S1	80
1	S2	70

Source: Musco 2025.

Two of the five light poles would be installed along the western boundary, one along the southern boundary, and two along the eastern boundary. Along the western boundary, one light pole would be east of proposed concessions and restroom building (S1), and one would be south of the electrical equipment control box (A1). Along the southern boundary, one light pole would be south of the proposed southern dugout (A2). Along the eastern boundary, one light pole would be near the southeast corner of the field (B2), and one near the northeast corner of the field (S2). The lighting poles would use light-emitting-diode (LED) luminaries and existing electrical connections on-site. All light would be shielded and directed to the softball field to reduce off-site light spill.

Some of the design elements for light control and reduced spill lighting include mounting height and steep aiming angles, various lighting modes, visors and shielding, reflective housing around the luminaires, and fixed number of luminaires. The proposed light poles would incorporate all these elements, and each element can be arranged individually to control and minimize any

potential spill lighting impacts. Additionally, the lighting proposed for the softball would use 50 foot-candles on the infield and 30 foot-candles on the outfield for the safety of the players. The lighting proposed for soccer use would be 30 foot-candles, which is consistent with recreational soccer fields in City parks.

During home softball games and other events (from dusk to 8:00 pm), the lighting engineer would control the lighting system and ensure that the lights are properly adjusted and maintained so that lighting and glare would not impact the surrounding community.

The proposed lighting poles would have Musco's Control-Link lighting controls, which is the same control system currently used at the Poly HS Track Field. The lights would have the ability to be dimmed to 50 percent light output or 25 percent output through the lighting control system. Additionally, two speakers would be fixed to each light pole to be utilized for home games and limited public announcements only.

INFRASTRUCTURE

The project site currently contains all necessary infrastructure to support the existing PAAL campus. Utilities would be relocated within the project site as described below. All infrastructure work would be interior to the project site.

Domestic and Fire Water

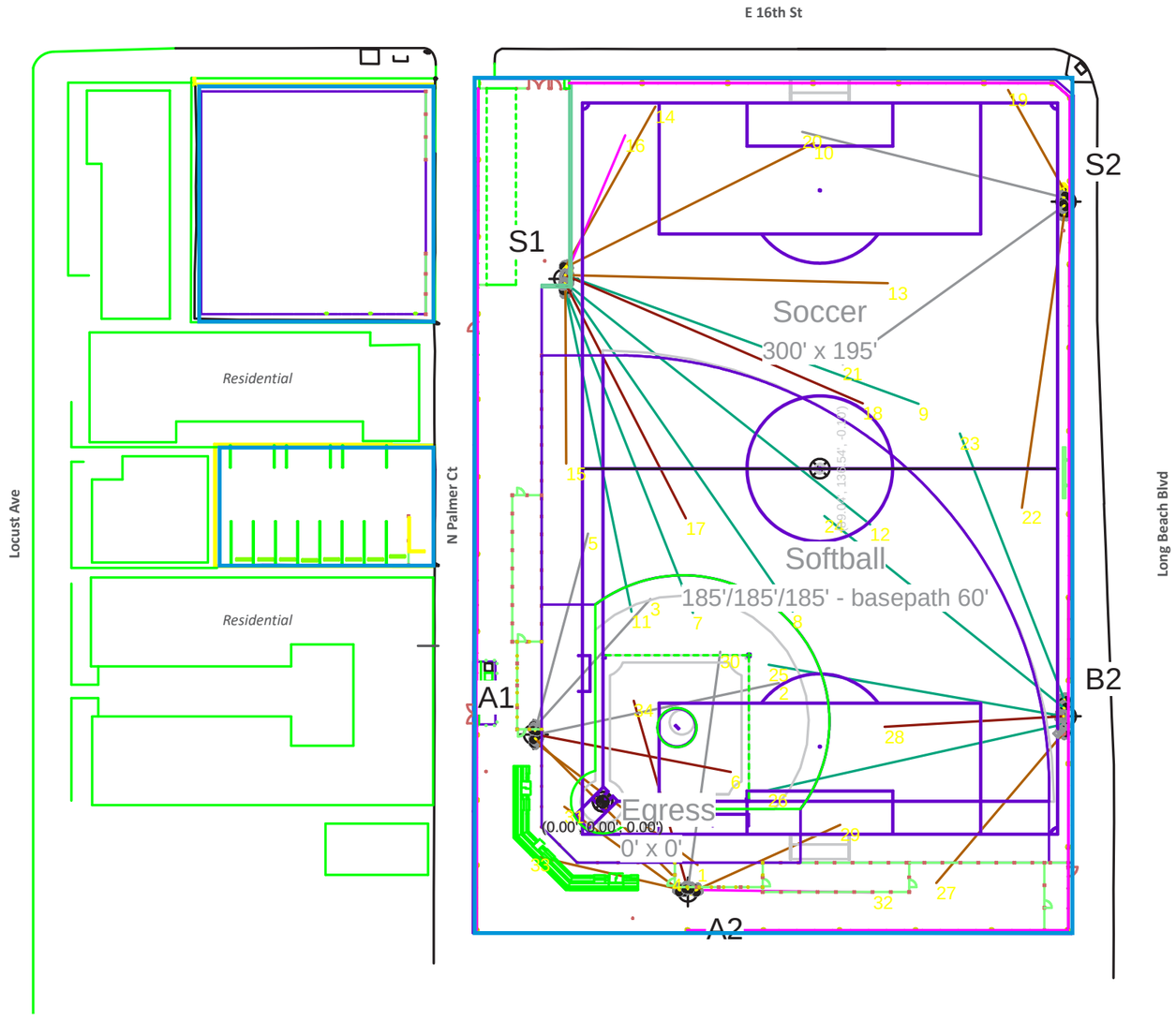
The proposed project includes the relocation of existing wet utility infrastructure that currently serves the PAAL campus to serve the proposed uses. The project proposes capping an existing potable water line within the campus and installing a new backflow prevention device, fire department connection, and water meter. The proposed project would use the existing potable water irrigation system to irrigate the proposed natural turf. Design of the potable and fire water lines would be in compliance with Long Beach Utilities Department standards and guidelines.

Sanitary Sewer

The proposed project includes the relocation of existing sewer lines that currently serve the PAAL campus, and would slope, drain, and tie into an existing vitrified clay pipe on-site. Sanitary sewer lines would be designed in compliance with Long Beach Utilities Department standards and guidelines.

Stormwater

Stormwater would continue to be captured by existing area drains that outlet into existing curb and gutters in East 16th Street and Long Beach Boulevard. Implementation and approval of a Storm Water Pollution Prevention Plan would be required prior to construction for the proposed project.



Long Beach Poly Softball and Soccer

Long Beach, CA

Equipment Layout

INCLUDES:
· Egress
· Soccer
· Softball

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.

Equipment List For Areas Shown

Structure				Fixtures		
QTY	STRUCTURE ID	SIZE	GLOBAL ELEVATION	ABOVE GLOBAL LEVEL	FIXTURE TYPE	QTY/POLE
1	A1	60'	-	60'	TLC-LED-900	3
				50'	TLC-LED-900	2
				30'	TLC-BT-575	1
1	A2	60'	-	60'	TLC-LED-900	3
				50'	TLC-LED-550	1
				50'	TLC-LED-900	1
				30'	TLC-BT-575	1
1	B2	70'	-	70'	TLC-LED-1200	4
				70'	TLC-LED-1500	1
				25'	TLC-BT-575	1
1	S1	80'	-	80'	TLC-LED-1200	3
				80'	TLC-LED-900	5
				35'	TLC-LED-550	1
				35'	TLC-LED-900	1
				25'	TLC-BT-575	2
1	S2	70'	-	70'	TLC-LED-1200	2
				70'	TLC-LED-550	1
				70'	TLC-LED-900	1
5	Totals					34

Above Global Level is height of fixtures above design (0,0,0)

Source: MUSCO 2025.

Figure 7
Proposed Lighting Equipment Layout

This page intentionally left blank.

Electrical

The PAAL campus has existing electrical infrastructure. New electrical distribution connections to the existing electrical infrastructure for lighting, HVAC equipment, charging receptacles, and new project components would be provided. Proposed project electricity usage would not exceed available capacity, and no upgrades to the electrical service are anticipated.

Telecommunications

The proposed project includes the installation of a structural cabling system designed under the direction of a Registered Communication Distribution Designer (RCDD). This includes telecommunication equipment rooms with equipment racks, termination hardware, cable management, backbone cabling systems with fiber and copper connections between telecom rooms, and a horizontal cabling system linking telecom rooms to user outlets.

2.4 PROJECT CONSTRUCTION CHARACTERISTICS

2.4.1 Construction Schedule

Construction is anticipated to commence in the Fall of 2026 and conclude in the Fall of 2027 (12 months). Construction staging would be on-site. There may be a temporary driveway during construction.

2.4.2 Demolition and Site Grading

Construction would include demolition of all nine modular buildings, all shade structures, pavement, and any associated site work on the project site. The proposed construction activities would result in approximately 848 cubic yards of soil export. Grading would occur across the entire 1.9-acre PAAL campus. No grading or demolition would occur at the existing surface parking lots; however, both surface parking lots would be restriped. A discussion of the restriping is provided in Section 2.4.1, *Project Components*, above.

2.5 PROJECT OPERATIONAL CHARACTERISTICS

2.5.1 Events Scheduling

The proposed multipurpose softball field would be used for sporting events, practices, and sports periods, consistent with these already-occurring activities at Poly HS. Additionally, the proposed softball and multipurpose field would be subject to joint-use with the City of Long Beach, consistent with the District's facilities in the city.

The Poly HS sports period, including softball and soccer practice, is typically seventh period, from 2:09 pm to 3:35 pm. Softball games and practices would consist of varsity and junior varsity softball. Soccer practices would consist of varsity and junior varsity soccer. Soccer games would not be held at the proposed multipurpose field but would continue to be held at the Poly HS campus football stadium. Softball games on the proposed multipurpose field would occur after school hours. The proposed schedule for softball events utilizing the proposed multipurpose field would be similar to the current sports schedule at Poly HS. The softball season runs from February through June and typically consists of 13 home games. Home games are typically played on Tuesdays, Thursdays, and Fridays and start between 3:15 and 4:00 pm and end at 6:00 pm. The new field may be used for other, non-sport events throughout the year. Field lighting would be used as needed during night games and evening practices. In general, all sports activities (and any lighting) on the project site are scheduled to end before 8:00 pm Monday through Friday.

2.5.2 Circulation

VEHICLE CIRCULATION

The existing drop-off lane and parking stalls along the northwestern side of the project site would be demolished to make way for the new field improvements. However, access to the project site would continue to be provided via East 16th Street and North Palmer Court. Buses for visiting teams would arrive at the new multipurpose softball field. Buses for students for CIF games may also arrive at the new multipurpose softball field or utilize the Poly HS parking lot. The District may provide transportation for Poly HS students from Poly HS to the project site for practices if requested by Poly HS. The buses would arrive to drop off students for games and events, then relocate to Poly HS to park during the event. After the event concludes, the buses would return to pick up the students.

PARKING

As previously identified, the PAAL campus has nine reserved parking stalls on-site; these stalls would be removed as part of the proposed project. The project site includes the two existing parking lots across North Palmer Court. These parking lots will remain but both parking lots would be restriped to accommodate ADA-accessible parking stalls. The restriping of the northern parking lot would remove two stalls from the lot, and the restriping of the southern parking lot would remove one stall from the lot, leaving a total of 35 parking stalls to support the project site. As with existing conditions, additional parking for visitors and users of the proposed softball and multipurpose field would be provided at the Poly HS campus, which is two blocks away (estimated six-minute walk). Moreover, public on-street parking is available on the surrounding roadways, including but not limited to East 16th Street and Long Beach Boulevard.

PEDESTRIAN CIRCULATION

Coaches, spectators, visiting teams, and students may walk from Poly HS along existing sidewalks within the rights-of-way of East 16th Street and Long Beach Boulevard to attend softball practices and games and soccer practices.

PUBLIC TRANSIT

Because the project site is in a transit-oriented area, the project site and surrounding area is well served by public transportation. The nearest bus stop is the Long Beach Boulevard / East 16th Street northeast stop for the Long Beach Transit 51 Bus Route on Long Beach Boulevard, adjacent to the project site. The project site is between two light rail stations on the Metro A Blue Line: the Pacific Coast Highway Station, approximately 0.17 mile north, and the Anaheim Street Station, approximately 0.3 mile south.

2.6 PROJECT APPROVALS

The District is the lead agency as set forth in CEQA Statute Section 21067 and is responsible for reviewing and approving the proposed project. The proposed project would require approval and/or coordination from the following responsible agencies.

Lead Agency	Action
Long Beach Unified School District	■ Approve the proposed project
Responsible Agencies	**Action**
Long Beach Utility Department (LBUD)	■ Approval of wet utility designs
California Department of Education (CDE)	■ Approval of plans
State Water Resources Control Board (SWRCB)	■ Approval of Storm Water Pollution Prevention Plan (SWPPP)
City of Long Beach Public Works	■ Construction Traffic Control Plan
Division of the State Architect	■ Approval of plans

This page is intentionally left blank.

3. ENVIRONMENTAL ANALYSIS

This section provides evidence to substantiate the conclusions in the environmental checklist included in Appendix G of the State CEQA Guidelines. The section summarizes the conclusions of the Adopted MND, discusses the impacts due to the proposed project as compared to the approved project, then discusses the conditions described in State CEQA Guidelines Section 15162. This Addendum documents that the proposed project would not result in any new significant environmental impacts, an increase in the severity of significant impacts previously identified in the Adopted MND, or any new or considerably different mitigation measures or alternatives that the District declines to adopt. Accordingly, this Addendum is the appropriate form of environmental review for the proposed project. This Addendum has been prepared to satisfy the requirements of State CEQA Guidelines Section 15164.

The previously adopted mitigation measures from the Adopted MND continue to be valid, feasible, and applicable to the approved project. The mitigation measures that are applicable to the scope of activities included in the proposed project are identified throughout this Addendum.

3.1 Aesthetics

3.1.1 Summary of Impacts Identified in the Approved Project

The Adopted MND identified potential scenic vistas in the vicinity of the approved project site: views of the Pacific Ocean to the southeast, south, and southwest and mountain views of the San Gabriel Mountains to the north and the Saddleback Mountains to the east. However, the surrounding area is developed and such views are limited. Thus, the approved project would not result in a significant adverse effect on a scenic vista, and impacts would be less than significant.

The approved project site at the Poly HS campus is approximately 0.4 mile south of California State Highway 1, some portions of which are classified as eligible for state scenic highway designation. However, the approved project site is not visible from the nearest section that is designated as a scenic highway. Therefore, no impacts to scenic resources within a scenic highway would occur with implementation of the approved project.

The Adopted MND determined that the approved project site is in an urbanized, residential, commercial, and institutional area. Implementation of the approved project would not alter surrounding views because the surroundings are already developed. Additionally, the approved project would not alter the approved project site's zoning designation. Therefore, impacts to scenic quality would be less than significant.

The approved project would include new indoor and outdoor lighting that would be installed to minimize glare and spillover light. The approved project would apply the District's design standards, which avoid impacts to daytime and nighttime views. Additionally, temporary construction lighting would not result in significant and permanent impacts. Therefore, implementation of the approved project would result in less than significant impacts associated with new sources of light or glare.

3.1.2 Impacts Associated with the Proposed Project

Except as provided in Public Resources Code Section 21099, would the project:	**Level of Impact in Adopted MND**	**Conditions Requiring Subsequent Review**			**Proposed Project Meets the Conditions for an Addendum** *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Have a substantial adverse effect on a scenic vista?	NI	No	No	No	**Yes**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	NI	No	No	No	**Yes**

Except as provided in Public Resources Code Section 21099, would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	LTS	No	No	No	**Yes**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area. Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area. Aesthetic resources include scenic resources, which include water forms, trees, rock outcroppings, historic buildings, and scenic highways. Impacts to aesthetic resources include

obstruction and destruction of views to or from scenic resources and/or the degradation of the visual character of the area.

The project site is an existing 1.9-acre school site with two noncontiguous surface parking lots and is approximately 0.3 mile (2 blocks) west of the approved project site. As discussed in Section 2.2.2, *Existing and Surrounding Land Uses*, the project site is fully developed with modular structures and buildings associated with the PAAL program and is in an urban area of the city. The project site is surrounded by residential and commercial uses.

IMPACT ANALYSIS

a) Have a substantial adverse effect on a scenic vista?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The City of Long Beach has several scenic vistas in the form of landforms (San Gabriel Mountains to the north and Saddleback Mountains to the east), open space, and Pacific Ocean views. The project site consists of the existing PAAL campus and associated parking lots in a heavily developed and urbanized area of the city and is approximately 0.3 mile west of the Poly HS campus. Similar to the approved project site, the surrounding area is developed with residential and commercial uses. Therefore, scenic vistas to these scenic resources are not provided. The approved project is intended to repair and upgrade school facilities for the existing student population and includes the construction of new or renovated athletic facilities. The proposed project includes restriping of the existing parking lots to include ADA compliant parking stalls and the reconstruction of the Poly HS athletic softball and multipurpose field facility at the PAAL campus and relocation of PAAL students to the Poly HS campus facilities. The proposed project would remove all existing development and provide a new replacement Poly HS multipurpose softball field. It would not affect any scenic vistas. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is in an urbanized area of the city and is not on an eligible or officially designated state scenic highway on the California Scenic Highway Mapping System of the California Department of Transportation (Caltrans). Similar to the approved project, the nearest eligible state scenic highway is SR-1 from post mile (PM) R0.143 to PM 3.56, which is 2.75 miles

east of the project site. The nearest officially designated state scenic highway is SR-91 between PM R9.187 and PM R13.415, which is 20 miles northeast of the project site (Caltrans 2025). Like the approved project, due to the distance, topography, and intervening development, the proposed project would not impact scenic resources within a state scenic highway. Therefore, no impact to scenic resources within a state scenic highway would occur due to implementation of the proposed project.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is within an urbanized area and is fully developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus. The proposed project would redevelop the PAAL campus with one softball and multipurpose field and would restripe the existing surface parking lots. The proposed project would continue to serve the PAAL and Poly HS students and is necessary in order to implement the approved project. According to the City of Long Beach General Plan, the project site is designated Transit-Oriented Development Moderate Density (TOD-M) with a Specific Plan and/or Downtown Plan Boundaries overlay. Additionally, the project site is zoned Specific Plan–Midtown Specific Plan District (SP-1). The proposed project does not include a general plan amendment or zone change and would not conflict with existing zoning on-site. Like the approved project, the project site is in an urbanized, residential, commercial, and institutional area, and the proposed project would be consistent with the existing zoning and General Plan land use designations on-site. It would be on a smaller scale than and compatible with the surrounding residential and commercial character. Therefore, implementation of the proposed project would not conflict with applicable zoning or other regulations governing scenic quality, and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The two major causes of light pollution on the existing campus and surrounding area are associated with urbanized development and include spill light and glare from sources of light. Spill light is caused by misdirected light that illuminates areas outside the area intended to be lit. Glare occurs when a bright object is against (or reflects off) a dark background or shiny surface. The project site currently contains sources of artificial light for security purposes and indoor lighting associated with the PAAL structures, and the surroundings are characterized by a mix of residential and commercial uses that experience existing nighttime illumination.

Generation of Light Spill

Sources of light as a result of the proposed project on the project site include lighting poles with Musco lighting fixtures around the proposed field and light emanating from building interiors. Two lighting poles would be along the eastern boundary of the proposed multipurpose softball field, one along the southern boundary, and two along the western boundary. The lighting poles would range from 60 to 80 feet in height and use LED lights. The light poles would be in operation during sports practices and games, as described in Section 2, *Project Description*. Existing off-site lighting sources would remain, including street lighting, vehicle lights, and exterior lighting on residential uses. The nearest light-sensitive receptors are the multi-family residences west of the project site on the opposite side of North Palmer Court.

Horizontal and vertical light levels are shown in foot-candles (fc). Foot-candles are used as the metric for evaluating light spill because many existing light meters are calibrated in foot-candles. As a point of reference, moonlight produces 0.01 fc, and sunlight can produce up to 10,000 fc. The general benchmarks for light levels are shown in Table 2, *General Light Levels Benchmark*. The area currently contains typical urban-setting lighting that likely ranges from 1.0 to 5.0 fc, as shown in the table.

Table 2 General Light Levels Benchmark

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

Table 2 General Light Levels Benchmark

Outdoor Light	Foot-Candles
Quarter Moon	0.001
Moonless Night	0.0001
Overcast Night	0.00001
Gas station canopies	25–30
Typical neighborhood streetlight and parking garage	1.0–5.0

According to the Musco lighting plans, the proposed multipurpose softball field lighting system would create a maximum horizontal light spill[2] of 0.10 fc at 20 feet (see Figure 8, *Horizontal and Vertical Light Spills*) and a maximum vertical light spill[3] of 0.18 fc near the residential receptors west of the project site. To evaluate potential light spill impacts on adjacent land uses, particularly sensitive receptors such as multifamily residential structures west of the project site, the analysis focuses on vertical illuminance levels.

The Long Beach Municipal Code does not identify a numerical threshold for light spill, but the proposed project would adhere to applicable lighting standards in the municipal code, including Section 21.44.855, Light and Glare Intrusion Prevention, which requires lighting to be adequately shielded, and properly oriented, and aimed so as to prevent the intrusion of light and glare on residential land uses. Some of the design elements for light control and reduced spill lighting include mounting height and steep aiming angles, various lighting modes, visors and shielding, reflective housing around the luminaires, number of luminaires, and appropriate light levels. The proposed light poles incorporate all these elements, and each element can be arranged individually to control and minimize any potential spill lighting impacts. According to the Illuminating Engineering Society Model Lighting Ordinance, the threshold for light spill for city/urban environments is 0.8 fc (IDA 2011). The vertical light spill at 20 feet is 0.62 fc, less than the identified threshold from the Illuminating Engineering Society Model Lighting Ordinance. The proposed project would not be inconsistent with the surrounding existing conditions during the daytime. Additionally, lighting would be limited to field use hours and would not remain illuminated overnight. As such, adjacent residents would not be exposed to prolonged or daily high-intensity illumination during the evening.

Therefore, while the proposed project would introduce new field lighting and result in localized areas of light spill, it would not create a substantial new source of light that would adversely

[2] Horizontal light spill is the amount of light received on a horizontal surface such as a roadway or parking lot pavement.

[3] Vertical light spill is the amount of light received on a vertical surface such as a billboard or building façade.

affect nighttime views. With shielding, operational limits, and consistent land use context, the impact would be less than significant.

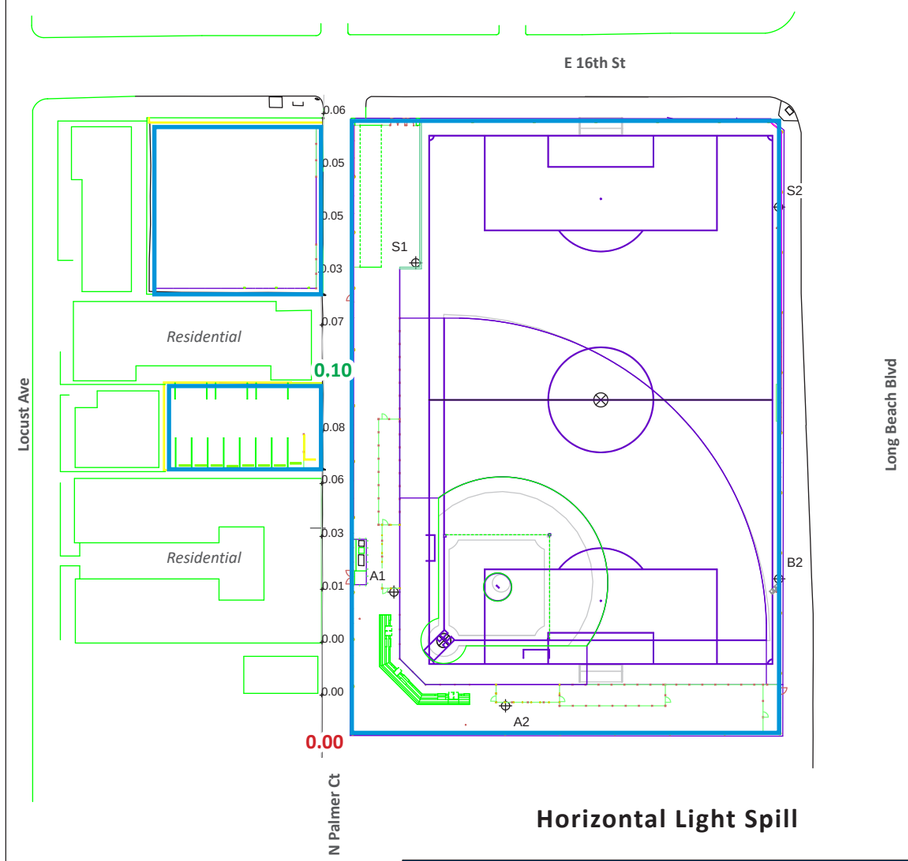
Generation of Glare

As with the approved project, the proposed project would incorporate lighting fixtures that would be shielded and directed downward to minimize glare and prevent direct line-of-sight exposure to bright point sources. The design elements for glare control include mounting height, visors and shielding, aim, and reflective housing around the lamp. As part of the proposed project, the lighting engineer would ensure that the lights are properly adjusted and maintained so that glare would not impact the surrounding community. In general, all activities on the project site are scheduled to end by 8:00 pm. Moreover, as previously discussed, the anticipated light spill would not exceed the 0.8 fc threshold. Therefore, the proposed project is not anticipated to generate discomfort glare or disability glare. The project would not result in a substantial new source of glare that would affect nighttime views in the area, and this impact is less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

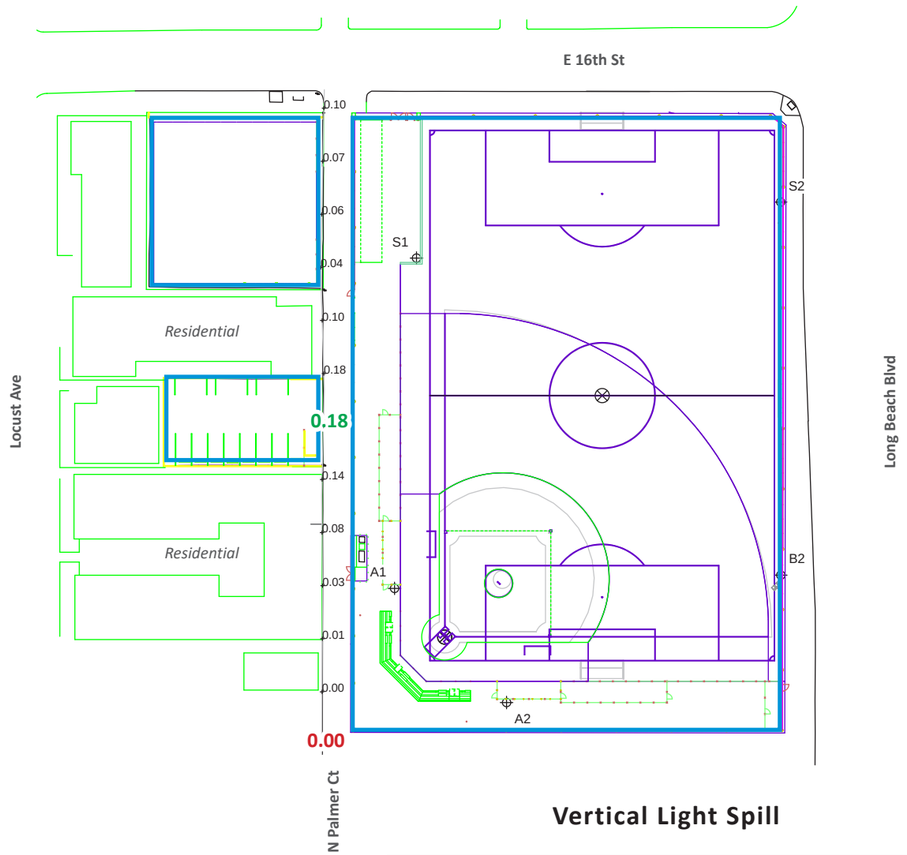
3.1.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to aesthetics were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.



Horizontal Light Spill

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	**0.04**
Maximum:	0
Minimum:	0
Avg/Min:	24.91
Max/Min:	**60.65**
UG (adjacent pts):	0.00
No. of Points:	13
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E
No. of Fixtures:	**34**
Total Load:	29.97 kW



Vertical Light Spill

Illumination Summary	
	MAINTAINED MAX VERTICAL FOOTCANDLES
	Entire Grid
Scan Average:	**0.07**
Maximum:	0
Minimum:	0
Avg/Min:	399.88
Max/Min:	**950.37**
UG (adjacent pts):	0.00
CU:	0.00
No. of Points:	13
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E
No. of Fixtures:	**34**
Total Load:	29.97 kW

Project Site Boundary

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

0 100
Scale (Feet)

Source: MUSCO 2025.

Figure 8
Horizontal and Vertical Light Spills

This page left intentionally blank.

3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that the approved project site is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Additionally, the approved project site is zoned Institutional, and the approved project would not change the site's zoning or land use designation. Therefore, the approved project would not result in any impacts associated with the conversion of farmland to non-agricultural use.

No land zoned for agricultural use are on or near the approved project site. Additionally, the City of Long Beach does not include any properties subject to the Williamson Act. Thus, the approved project would not result in any impacts associated with Williamson Act lands or agricultural zoning.

No lands in the City of Long Beach are zoned for forest land or timberland. Additionally, the approved project would not disturb any ornamental trees on-site. Therefore, the approved project would have no impact to forest land or timberland, and would not result in the loss or conversion of forest land and uses.

The approved project site does not contain any farmland or forest land. Implementation of the approved project would not result in any impacts related to the conversion of farmland or forest land.

3.2.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	NI	No	No	No	**Yes**
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))?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
d) Result in the loss of forest land or conversion of forest land to non-forest use?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Agricultural resources include prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and commercial grazing land, as defined in the Guidelines for the Farmland Mapping and Monitoring Program pursuant to Section 65570 of the Government Code, as well as land in a Williamson Act contract.

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor and without intolerable soil erosion (7 U.S. Code 4201(c)(1)(A)).

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops such as, citrus, tree nuts, olives, cranberries, fruits, and vegetables (7 U.S. Code 4201(c)(1)(B)).

Additional farmland of statewide or local importance is land identified by state or local agencies for agricultural use but not of national significance (7 U.S. Code 4201(c)(1)(C)).

The California Legislature passed the Williamson Act in 1965 to preserve agricultural and open-space lands by discouraging premature and unnecessary conversion to urban uses. The Williamson Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses.

The Williamson Act is a means to restrict the use of agricultural and open-space lands to farming and ranching uses during the length of the contract period. The Williamson Act Program was also envisioned as a way for local governments to integrate the protection of open space and agricultural resources into their overall strategies for planning urban growth patterns.

IMPACT ANALYSIS

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program produces maps and statistical data for analyzing impacts on California's agricultural resources. 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 (DOC 2025a). According to the Farmland Mapping and Monitoring Program, the project site and surrounding area are mapped as "Urban and Built-up Land" (DOC 2020). The project site is developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus. The project site is surrounded by residential and commercial uses. The closest farmland is "Unique Farmland" 2.75 miles northwest of the project site. Therefore, like the approved project, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a nonagricultural use, and no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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. According to the California Williamson Act Enrollment Finder, there is no Williamson Act contract in effect in the City of Long Beach or on the project site (DOC 2025b). Therefore, like the approved project, the proposed project would not conflict with an existing Williamson Act contract, and no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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))?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The City of Long Beach Zoning Map designates the project site as Specific Plan-Midtown Specific Plan District (SP-1) (Long Beach 2024). Like the approved project, the proposed project would not change the zoning designation of the existing campus and would not impact any lands zoned for forestland and timberland uses. The project site is developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus, and no forested land or timberland exists on-site. Therefore, redevelopment of the project site would not conflict with existing zoning for forest land, timberland, or land zoned timberland production, and no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus. Like the approved project, no forest land uses are present on-site nor in the immediate vicinity. The redevelopment of the project site with the proposed project would not require any changes to the existing environment that could result in the conversion of forest land into non-forest use. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. No significant forest land uses are present on-site or in the immediate vicinity. The closest classified farmland is 2.75 miles northwest of the project site and is classified as "Unique Farmland." The proposed project would be constructed within the boundaries of the project site and would not disturb any type of farmland. Vehicles associated with the proposed project would travel on existing public rights-of-way and would not affect the operation of this farmland. Like the approved project, construction and operation of the proposed project would not result in any changes to the existing environment that could result in the conversion of farmland into non-agricultural uses or forest land to non-forest use. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.2.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to agricultural resources were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.3 AIR QUALITY

3.3.1 Summary of Impacts Identified in the Approved Project

Implementation of the approved project was determined to be consistent with the emissions budgeted for the project site in the AQMP because the approved project is an allowed use in the current land use designation and zoning, and ongoing operation of the approved project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on South Coast Air Quality Management District (AQMD) thresholds of significance. Therefore, the approved project is not anticipated to exceed the air quality management plan assumptions for the approved project site and impacts were determined to be less than significant.

Construction-phase air quality impacts would include emissions from construction exhaust and travel, demolition and earth-moving activities, architectural coatings, and asphalt paving.

Operational air quality impacts would include emissions from project-generated vehicle traffic and from on-site sources. The California Emissions Estimator Model (CalEEMod) was utilized to calculate the regional emissions from the approved project and determined that the approved project would not result in a cumulatively considerable net increase of any criteria pollutant. Impacts were determined to be less than significant.

The Adopted MND determined that the approved project would not expose sensitive receptors to substantial pollutant concentrations and would not create objectionable odors affecting a substantial number of people. Therefore, impacts to air quality were less than significant.

3.3.2 Impacts Associated with the Proposed Project

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:**	**Level of Impact in Adopted MND**	**Conditions Requiring Subsequent Review**			**Proposed Project Meets the Conditions for an Addendum** *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Conflict with or obstruct implementation of the applicable air quality plan?	LTS	No	No	No	**Yes**
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?	LTS	No	No	No	**Yes**
c) Expose sensitive receptors to substantial pollutant concentrations?	LTS	No	No	No	**Yes**

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:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	New Information Showing New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(3)(A–B)*	New Mitigation or Alternative to Reduce Significant Effect Is Declined *CEQA Guidelines Section 15162(a)(3)(C–D)*	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

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 project site is in the city of Long Beach in southwestern Los Angeles County. The project site is in the South Coast Air Basin (SoCAB), and air quality regulation is administered by the South Coast AQMD. The South Coast AQMD implements the programs and regulations required by the federal and State Clean Air Acts.

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 (PM_{10}), 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 SoCAB 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 2025).

Furthermore, 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.

IMPACT ANALYSIS

a) Conflict with or obstruct implementation of the applicable air quality plan?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The South Coast AQMD adopted the 2022 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 in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. A 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. The approved project is intended to repair and upgrade school facilities for the existing student population at Poly HS and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of the PAAL program to existing facilities at Poly HS. The proposed project would provide a new, relocated space for facilities and events that already occur on the Poly HS campus. These uses would continue to serve the existing student population and school uses in the area. The proposed project would not result in an increase in student or staff capacity at Poly HS or PAAL. Based on its scope and nature, the proposed project would not substantially affect housing, employment, or population projections within the region.

Additionally, as described in Impact b), the regional emissions that would be generated by the operational phase 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.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need

for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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

Less Than Significant Impact. 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. Such construction activities are assumed under the approved project.

Construction activities for the proposed project would disturb approximately 2 acres on the project site. The proposed project would involve building and asphalt demolition, site preparation, grading, utility trenching, building construction and field installation, paving, and architectural coating. This is similar to the type of construction activities occurring under the approved project at the Poly HS campus. For the purposes of this analysis, overall construction is anticipated to start in Fall 2026 and finish in Fall 2027. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod, Version 2022.1, and are based on the preliminary construction duration provided by the District.

Table 3, *Maximum Daily Regional Construction Emissions*, shows that 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. Therefore, air quality impacts from project-related construction activities would be less than significant.

Table 3 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (lbs./day)[1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2026						
Building and Asphalt Demolition	1	15	16	<1	3	1
Site Preparation	1	11	12	<1	2	1
Grading and Utility Trenching	2	17	19	<1	5	2
Building Construction and Field Installation	1	10	13	<1	1	<1
Year 2027						
Building Construction and Field Installation	1	10	13	<1	1	<1
Building Construction and Field Installation, Paving, and Architectural Coating	3	16	23	<1	1	1
Impact Analysis						
Maximum Daily Construction Emissions	**3**	**17**	**23**	**<1**	**5**	**2**
South Coast AQMD Regional Significance Threshold	75	100	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod Version 2022.1; South Coast AQMD 2023.

Note: Highest winter or summer emissions are reported. (See Appendix A)

[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

Less Than Significant 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 demolish the PAAL campus, relocating PAAL uses to existing facilities at Poly HS, and redevelop the project site with a softball and multipurpose field and other field improvements to serve the Poly HS campus. Since the proposed multipurpose softball field would support Poly

HS and would not increase student enrollment or staffing, trips associated with the proposed multipurpose softball field already exist within the District boundaries, and operation of the proposed project would not generate new vehicle trips. Lastly, the new modular buildings for concession and restroom facilities would be designed and built to meet, at minimum, the latest Building Energy Efficiency Standards and California Green Building Standards Code (CALGreen).

Compared to existing operations as a full-time school campus, operation of the proposed project would generate nominal operational emissions and would not exceed the South Coast AQMD's regional operation-phase significance thresholds. Impacts to the regional air quality associated with operation of the proposed project would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

c) Expose sensitive receptors to substantial pollutant concentrations?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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.

Construction LSTs

Less Than Significant Impact. Localized significance thresholds (LSTs) are based on the California AAQS, which are 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 off-site sensitive receptors are the residences to the north along East 16th Street and west along North Palmer Court.

Air pollutant emissions generated by construction activities would cause temporary increases in air pollutant concentrations. Table 4, *Localized Construction Emissions*, 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 the minimum reference distance of 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$ in SRA 4: South Los Angeles County Coastal. As shown in Table 4, construction of the proposed project would not generate construction-related on-site emissions that would exceed the screening-level LSTs.

Thus, project-related construction activities would not have the potential to expose sensitive receptors to substantial pollutant concentrations. Localized air quality impacts from construction activities would be less than significant.

Table 4 Localized Construction Emissions

	Pollutants(lbs/day)[1]			
	NO_X	CO	PM_{10}[2]	$PM_{2.5}$[2]
South Coast AQMD ≤1.00-acre LST	**57**	**585**	**4.00**	**3.00**
Building Construction and Field Installation 2026	10	12	0.36	0.33
Building Construction and Field Installation 2027	10	12	0.32	0.30
Building Construction and Field Installation, Paving, and Architectural Coating	16	21	0.57	0.53
Exceeds LST?	No	No	No	No
South Coast AQMD 1.94-Acre LST	**80**	**826**	**6.81**	**4.87**
Site Preparation	10	11	1.63	0.52
Exceeds LST?	No	No	No	No
South Coast AQMD 2.00 Acre LST	**82**	**842**	**7.00**	**5.00**
Building and Asphalt Demolition	13	15	2.37	0.72
Grading and Utility Trenching	15	17	4.14	2.01
Exceeds LST?	**No**	**No**	**No**	**No**

Source: CalEEMod Version 2022.1; South Coast AQMD 2008a, 2011, and 2023.

Notes: In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment are included in the analysis. Screening level LSTs are based on receptors within 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$ in SRA 4.

[1] Where specific information for project-related construction activities or processes was not available; modeling was based on CalEEMod defaults. These defaults 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.

Construction Health Risk

Less Than Significant Impact. Emissions from construction equipment primarily consist of diesel particulate matter (DPM). In 2015, the Office of Environmental Health Hazards Assessment (OEHHA) adopted guidance for preparation of health risk assessments, which included the development of a cancer risk factor and non-cancer chronic reference exposure level for DPM

over a 30-year time frame (OEHHA 2015). Currently, South Coast AQMD does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. The proposed project is anticipated to be completed in approximately 12 months, which would limit the exposure of on- and off-site receptors. Thus, construction emissions would not pose a health risk to on- and off-site receptors, and project-related construction health impacts would be less than significant.

Operation LSTs

Less Than Significant Impact. Operation of the proposed project would not generate substantial emissions from on-site 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 does not fall within these categories of uses. While operation of the new modular buildings would use standard on-site mechanical equipment such as heating, ventilation, and air conditioning, air pollutant emissions would be nominal. Localized air quality impacts related to operation-related emissions would be less than significant.

Carbon Monoxide Hotspots

Less Than Significant Impact. Vehicle congestion has the potential to create pockets of carbon monoxide (CO) called hotspots. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles are backed-up and idle for longer periods and are subject to reduced speeds. These pockets could exceed the State one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9.0 parts per million (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 typically demonstrated through an analysis of localized CO concentrations.

The SoCAB has been designated attainment under both the national and California AAQS for CO. However, South Coast AQMD does not have an adopted screening criteria to determine whether a project may have the potential to generate a CO hotspot. According to Bay Area Air District, 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 mixing is substantially limited—in order to generate a significant CO impact (Bay Area Air District 2023). Trips associated with the proposed multipurpose softball field and PAAL facility are already existing within the District boundaries and the immediate vicinity and therefore, operation of the proposed project would not generate new vehicle trips.

According to the City of Long Beach's citywide traffic flow data, the street segments near the intersection of East 16th Street and Long Beach Boulevard experience approximately 18,100

average daily vehicle trips (ADT) (Long Beach 2014). Based on a standard transportation industry assumption that peak hour trips account for approximately 10 percent of average daily counts, this equates to an estimated 1,810 average peak hour vehicle trips at the intersection. Since the proposed project would not generate additional peak hour trips, the proposed project would not increase peak hour traffic volumes at affected intersections to exceed the Bay Area Air District's recommended hourly screening criteria. Thus, like the approved project, the proposed project would not introduce new vehicle trips which may result in a CO hotspot when combined with existing traffic volumes and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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 proposed project involves redeveloping the project site with a multipurpose softball field and other field improvements to serve the Poly HS campus, restriping the existing surface parking lots to include ADA-compliant parking spaces, and relocation of PAAL students to existing Poly HS facilities. As a result, the proposed project would not fall within the land uses associated with objectionable odors. Emissions from construction equipment, such as diesel exhaust and volatile organic compounds from architectural coatings and paving activities, may

generate odors. However, these odors would be low in concentration, temporary, and would not affect a substantial number of people. Odor impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.3.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to air quality were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.4 BIOLOGICAL RESOURCES

3.4.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that the approved project site is located within an urbanized and developed area, and does not contain any native vegetation. Thus, special-status species are not expected to occur on-site. However, nesting birds that are protected under the Migratory Bird Treaty Act (MBTA) may have the potential to occur within the approved project site. Construction of the approved project would comply with the MBTA. Compliance with the MBTA would ensure no impact on protected species.

The Adopted MND determined that the approved project site is not located within an area designated by the County of Los Angeles as being a Significant Ecological Area, and does not contain any riparian habitat, wetlands, or other natural community. Therefore, no impacts to sensitive habitats or wetlands would occur.

Implementation of the approved project would not interfere with the movement of any native resident or migratory fish or wildlife species, or native wildlife nurseries as the approved project site is currently urbanized and developed. Compliance with the MBTA would reduce impacts regarding wildlife corridors or nursery sites.

The approved project may result in the removal of some existing on-site trees. None of the plant species on-site are protected by local policies or ordinances protecting biological resources. The approved project would be landscaped in accordance with the tree planting specifications of the City. As such, no impact on local policies protecting biological resources would occur.

The approved project site is not within the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the approved project would not conflict with any approved plans. No impact would occur.

3.4.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Biological resources include habitat and vegetative communities, migratory corridors, plants, wildlife, fisheries, special status species (regulated by a law, regulation, or policy, such as threatened and endangered species), and waters of the United States. The project site is completely developed with school facilities and is located in an urbanized area of the city. The project site does not contain any watercourse, greenbelt, or open space for wildlife movement, and no native vegetation is present; therefore, candidate and special status species are not expected to occur. Additionally, no riparian habitat or other sensitive natural community or wetlands exist on the project site (USFW 2025a).

IMPACT ANALYSIS

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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 (CDFW); and plant species listed as rare by the California Native Plant Society (CNPS).

The project site is approximately 0.3 mile or 2 blocks west of the approved project site. The Long Beach Conservation Element identifies a variety of biological resources throughout the city, both animal species and native plants, which include endangered or threatened species (Long Beach 1973). However, according to the U.S. Fish and Wildlife Service (USFWS) mapper for critical habitat for threatened and endangered species, the approved project site, project site, and surrounding area are outside of any federally designated critical habitat (USFWS 2025a). Additionally, like the approved project, the project site is not in a habitat conservation plan/national community conservation plan area (HCP/NCCP) (CDFW 2025a). The project site has been previously disturbed due to the construction of the PAAL campus and surface parking lots, as has the entire surrounding area that is developed and urbanized. Therefore, the proposed project would not directly or indirectly impact any candidate, sensitive, or special status species, and no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. The project site is entirely developed and disturbed within a developed area. No federally designated critical habitat exists on-site or in the vicinity of the project site (USFWS 2025a). The National Wetlands Mapper maintained by the USFWS did not identify any riparian habitats on the project site. The nearest wetland is an Estuarine and Marine Deepwater habitat (Los Angeles River) approximately 0.8 mile west of the project site that traverses the city (USFWS 2025b). All project development would occur within the boundaries of the project site. Thus, the project site does not contain any riparian habitat or other sensitive natural community, and the project would not impact the riverine habitat or other sensitive natural community. Therefore, no impacts to riparian habitat or other sensitive natural communities would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need

for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is currently developed with the existing PAAL campus and associated surface parking lots. As discussed in Section 3.4(b), the National Wetlands Mapper identified an Estuarine and Marine Deepwater habitat approximately 0.8 miles west of the project site that traverses the city (USFWS 2025b). No wetlands or riverine habitats exist within the project site. Construction-related activities would be confined within the project site. Therefore, given the distance between the project site and the off-site wetland/riparian habitat, compliance with regulatory compliance measures such as preparation of a SWPPP, and incorporation of best management practices, the proposed project would not affect the off-site wetland/riverine habitat. Thus, no impacts to protected wetlands would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is in an urbanized area of the City of Long Beach. The project site is fully developed with the PAAL campus and surface parking lots. No federally designated critical habitat exists on-site or in the vicinity (USFWS 2025a). Furthermore, based on the California Department of Fish Wildlife's BIOS 6 viewer Terrestrial Connectivity layer, the project site has a score of one out of five, indicating the project site has a "limited connectivity opportunity" (CDFW 2025b). Areas with "limited connectivity opportunity" are areas where land use may limit options for providing connectivity, or no connectivity importance has been identified (CDFW 2025c). Due to the disturbed and developed nature of the project site and surrounding urban development, the project site would not be an essential wildlife corridor. Additionally, the proposed project would be confined within the boundaries of the previously disturbed PAAL campus and would not result in any new impacts to wildlife corridors.

The proposed project would include the removal of ornamental trees on the PAAL campus. These trees have the potential to provide habitat for nesting birds, which are protected by the Migratory Bird Treaty Act (MBTA). The MBTA governs the taking, killing, possession,

transportation, and importation of migratory birds, their eggs, parts, and nests (16 US Code Sections 703–712). The MBTA prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities except under a valid permit or as permitted in the implementing regulations. As with the approved project, construction of the proposed project would comply with the MBTA, which requires that nesting bird surveys be conducted prior to the start of vegetation clearance activities should they occur during nesting season: February through August (CDFW 2025d). In compliance with the MBTA requirements, should vegetation clearance occur during the nesting bird season, a qualified biologist would conduct a nest survey within one week of the start of these activities to ensure no active nests were lost. If an active nest is located, then the nest should be flagged and construction within an appropriate distance of the nest should be postponed until the biologist has confirmed that the nest is no longer active. Compliance with the MBTA would result in no impacts regarding wildlife corridors or nursery sites.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As with the approved project, the proposed project would result in the removal of existing ornamental trees on-site. The proposed project does not include the removal of trees along the public rights-of-way surrounding the project site or from City-owned properties. The PAAL campus would be redeveloped with a multipurpose softball field that would feature natural turf and natural red clay track and would restripe the surface parking lots. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, including a tree preservation policy or ordinance, and no impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is fully developed with the PAAL campus and surface parking lots. As with the approved project, the proposed project is not within an identified HCP/NCCP (CDFW 2025a).

The proposed project would not impact any HCP/NCCP or other approved local, regional, or state conservation plan. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.4.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to biological resources were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.5 CULTURAL RESOURCES

3.5.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that Poly HS was eligible for listing in the National Register of Historic Places and the California Register of Historic Resources under Criterion 3. A Phase II assessment conducted for the approved project found that implementation of the approved project would not result in the modification or destruction of the character-defining features of Poly HS. Thus, the approved project would not result in a substantial adverse change that would impair the historic significance of Poly HS. Therefore, impacts were less than significant.

Based on the limited ground surface visibility, the historic nature of Poly HS, and the existence of previously recorded prehistoric and historic resources within the half-mile study area around the approved project site, the Adopted MND determined that archaeological resources could still be discovered in or near the approved project site. Due to the demonstrated sensitivity of the area, mitigation measures (MM) CUL-1, MM CUL-2, MM CUL-3, MM CUL-4, and MM CUL-5 were imposed to reduce impacts to archaeological resources. Implementation of MM CUL-1 through MM CUL-5 would reduce impacts to archeological resources to less than significant levels.

It was determined that implementation of the approved project would not disturb any human remains, as no known cemeteries or other areas of known human remains were in the approved project area..

3.5.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	LTS	No	No	No	**Yes**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	LTS/M	No	No	No	**Yes**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

In 2017, the District prepared the District-Wide Cultural Resources Assessment in two parts: Part I, Historical Resources Assessment, and Part II, Archeological and Paleontological Resources Assessment (LBUSD 2017a, LBUSD 2017b). The goal of the assessment was to comply with the cultural resources requirements of CEQA when applicable and to implement practical approaches to preserving culturally significant resources whenever possible across all District facilities and properties.

Impacts to cultural resources include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

IMPACT ANALYSIS

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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:

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

ii) Is associated with the lives of persons important in our past;

iii) 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;

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

The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS. This relocation of the PAAL program would require no physical changes at the Poly HS campus beyond those evaluated in the Adopted MND. While Poly HS is eligible for listing under the NRHP and CRHR, the proposed project would be implemented within the existing PAAL campus, which is not an eligible or listed historical resource. The PAAL campus consists of eight modular structures built in 1996, so it is not historically significant and does not contain historic structures. PAAL is not listed as a historical resource in the District's Part I: Historical Resources Assessment, or on the National Register, California Historical Landmarks, or California Register (NPS 2025a, 2025b; OHP 2025a, 2025b). Additionally, a records search with a radius of a half mile was conducted on September 12, 2023, for the Adopted MND (see specifically Appendix C of the Initial Study/MND). The half-mile radius included the project site; the results of the records search did not identify the project site as a previously recorded historical resource (LBUSD 2023).

The nearest historical resource to the project site is the Poly HS campus, approximately 0.3 mile or 2 blocks east, and the Long Beach Professional Building, approximately 0.65 mile south. No changes are necessary at the Poly HS campus to accommodate the relocated PAAL program uses beyond those evaluated in the Adopted MND. Given the nature of the proposed project, the

distance, and intervening development, the proposed project would not impact these historical resources or any others. The proposed transfer of PAAL students and staff to the Poly HS campus would not result in development beyond what is evaluated in the Adopted MND for the approved project. Therefore, there are no resources on the project site that would be considered "historically significant," and no impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The entire project site is fully developed and there are no areas of exposed soils where archaeological resources could be observed. The Adopted MND identified 43 previously recorded cultural resources within a half-mile radius of the Poly HS campus, which included the project site. It should be noted that none of the previously recorded cultural resources were mapped within the project site (LBUSD 2023).

Earthwork associated with the proposed project would include removal of all modular structures and grading of the entire 1.9-acre PAAL campus. Given the nature of the type of development (multipurpose softball field and associated improvements), the proposed project is not anticipated to require extensive excavation or disturb native subsurface soil, where archaeological resources could be discovered. The proposed project would occur within the boundaries of an existing PAAL campus that has already been developed; therefore, the potential discovery of archaeological resources would be minimal.

While unlikely, ground-disturbing activities from the proposed project, should they exceed into previously undisturbed native soils that have greater sensitivity, may have the potential to uncover unknown archaeological resources and therefore could result in a potentially significant impact. Part I, "Archaeological Resources Assessment," of the *District-Wide Cultural Resources Assessment* (2017) identifies management guidelines where native soils would be disturbed and mitigation measures for excavation activities (regardless of whether native soils are present or absent) to reduce impacts to previously unknown archaeological resources and human remains (LBUSD 2017b). Implementation of Mitigation Measures CUL-1 through CUL-5 from the Adopted MND would ensure that in the event archaeological resources are discovered during ground-disturbing activities, archaeological resources would be recovered in accordance with State and federal requirements. If archaeological resources are discovered during ground-disturbing activities, all ground-disturbing activities shall halt and a qualified archeologist would be retained to assess such findings. Implementation of Mitigation Measures CUL-1 through CUL-5 would reduce impacts to archaeological resources to less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is in an urbanized area, previously disturbed by past activities. As with the approved project, there are no cemeteries or known human burials at the project site, which has been developed with the existing PAAL campus (LBUSD 2023). Though unlikely, ground-disturbing activities from the proposed project have the potential to uncover previously unknown human remains if they penetrate previously undisturbed native soils. **I**n the event that human remains are discovered during ground-disturbing activities, the approved project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Los Angeles County Medical Examiner-Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the human remains are determined to be prehistoric, the Medical Examiner-Coroner shall notify the Native American Heritage Commission (NAHC), which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with existing laws would reduce the impact to less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.5.3 Adopted Mitigation Measures Applicable to the Proposed Project

Mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, MM CUL-4, and MM CUL-5 from the Adopted MND apply.

> **MM CUL-1:** LBUSD shall retain the services of a qualified cultural resources consultant and require that all initial ground disturbing work be monitored by a cultural resources monitor. This includes all initial construction activities that will potentially expose or encounter intact subsurface sediments underlying the Project site. The cultural

resources consultant shall provide a Qualified Archaeologist, meeting the Secretary of the Interior Standards (U.S. Department of the Interior, 2008), and require that all initial ground-disturbing work be monitored by cultural resources monitor (monitor) proficient in artifact and feature identification in monitoring contexts. The Consultant (Qualified Archaeologist and/or monitor) shall be present at the project construction phase kickoff meeting.

MM CUL-2: Prior to commencing construction activities and thus prior to any ground disturbance in the Proposed Project site, the Consultant shall conduct initial Worker Environmental Awareness Program (WEAP) training to all construction personnel, including supervisors, present at the outset of the Project construction work phase, for which the lead contractor and all subcontractors shall make their personnel available. This WEAP training will educate construction personnel on how to work with monitors to identify and minimize impacts to cultural resources and maintain environmental compliance and be performed periodically for new personnel coming on to the Project as needed.

MM-CUL-3: The contractor shall provide the Consultant with a schedule of initial potential ground disturbing activities. A minimum of 48-hours' notice will be provided to the archaeological consultant of commencement of any initial ground disturbing activities that have potential to expose or encounter intact subsurface sediments underlying the Project site. These activities may include grading, trenching, and mass excavation.

As detailed in the schedule provided, a monitor shall be present on-site at the commencement of ground-disturbing activities related to the Project. The Consultant shall observe initial ground disturbing activities and, as they proceed, adjust the monitoring approach as needed to provide adequate observation and oversight. All monitors will have stop-work authority to allow for recordation and evaluation of finds during construction. The monitor will maintain a daily record of observations as an ongoing reference resource and provide a resource for final reporting upon completion of the Project.

The Consultant, the lead contractor, and subcontractors shall maintain a line of communication regarding schedule and activity such that the Consultant is aware of all ground-disturbing activities in advance, in order to provide appropriate oversight.

MM CUL-4: If cultural resources are discovered, construction shall be halted within 50 feet of any cultural artifacts or features and within 100 feet of any potential human

remains and shall not resume until the Qualified Archaeologist can determine the significance of the find and/or the find has been fully investigated, appropriately documented, and cleared.

MM CUL-5: At the completion of all ground disturbing activities, the Consultant shall prepare a Cultural Resources Monitoring Report summarizing all monitoring efforts and observations as performed, and any and all prehistoric or historic archaeological finds, as well as providing follow-up reports of any finds to the SCCIC, as required.

3.6 ENERGY

3.6.1 Summary of Impacts Identified in the Approved Project

During construction, the approved project would consume electricity from the demolition and reconstruction of structures and aquatic center on campus. The ongoing operation of the approved project would require energy resources for multiple purposes, including pool heating, heating, ventilation, and air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips. The approved project would comply with regulatory compliance measures outlined by the State and City related to air quality, energy, and GHGs. Additionally, the approved project will be constructed in accordance with all applicable City building and fire codes; therefore, the approved project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts were determined to be less than significant.

The approved project is required to meet the State's most current Title 24 Part 6 and Part 11 building energy efficiency standards. The City of Long Beach Climate Action Plan (CAP) provides citywide sustainability goals and energy conservation measures. The approved project will be designed to meet all applicable state building energy efficiency standards as well as the City's energy efficiency standards; therefore, the approved project was determined not to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts were less than significant.

3.6.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	LTS	No	No	No	**Yes**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally

occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

Petroleum-based fuels currently account for a majority of California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined.

IMPACT ANALYSIS

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at the Poly HS camps. The following discusses the potential energy demands from short-term construction and long-term operational energy consumption associated with the proposed multipurpose softball field improvements at the project site to serve Poly HS, restriping of the surface parking lots, and relocation of PAAL program uses to the Poly HS campus.

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, impacts would be less than significant with respect to natural gas usage.

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 use of off-road construction equipment. It is anticipated that the majority of off-road construction equipment, such as those used during demolition and grading, 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 proposed project site is centrally located in the greater Orange County area and is served by numerous regional freeway systems (e.g., State Route 1 and Interstate 710) 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 project would generate new demand for electricity, natural gas, and transportation energy on the project site. Operational use of energy would include heating, cooling, and ventilation of the proposed modular buildings; water heating; operation of electrical systems and field lighting, and use of on-site equipment and appliances. Since the existing uses at the PAAL campus would be relocated to existing facilities at the Poly HS campus, no change in energy consumption associated with this use is anticipated.

Electrical Energy

As shown in Table 5, *Electricity Consumption*, implementation of the proposed project would result in 6,010 kilowatt hours of electricity use per year. Estimated consumption accounts for

the increase in electricity consumption since proposed modular building would be an all-electric design.

Table 5 Electricity Consumption

Land Use	Electricity (kWh/year)[1]
Proposed Project Conditions	
Modular Building	6,010

Source: CalEEMod Version 2022.1. Appendix A

Note: kWh=kilowatt-hour

[1] The electricity use per year is based on the proposed square footage of the proposed modular buildings. Accounts for the increase in electricity consumption since proposed modular buildings would be all-electric.

Electrical service to the project site would be provided by Southern California Edison (SCE) through connections to existing on-site electrical lines as needed. While the proposed project would result in an increase in electricity demand, the increase would be negligible compared to SCE's capacity. The proposed project would use energy-efficient LED luminaires, which offer a longer lifespan and lower energy consumption compared to metal halide or high-pressure sodium lights. Any increase in electricity use associated with the field lighting would be limited to occasional evening and nighttime sporting events, minimizing overall energy consumption. The proposed project would also include an all-electric design for the new modular building, which would exceed the current Building Energy Efficiency Standards and CALGreen for energy efficiency.

In addition, SCE is required to meet the renewable energy production goals of the California Renewable Portfolio Strategy (RPS). The RPS is a phased requirement for load-serving entities, like SCE, to increase the proportion of in-state sales of electricity being procured from eligible renewable and carbon-free sources until 2045, when the goal is to achieve 100 percent of in-state sales be procured from carbon-free sources. The utility company's compliance with the State's RPS program would support the goals outlined in Appendix F of the State CEQA Guidelines of promoting the use of renewable energy and decreasing reliance on fossil fuels. Because the proposed project and SCE would comply with these regulations, it would not result in wasteful, inefficient, or unnecessary electricity demands. Therefore, operation of the proposed project would result in a less than significant impact related to electricity.

Natural Gas Energy

The proposed modular building would not use natural gas for food preparation. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary natural gas demands. Operation of the proposed project would result in less than significant impacts with respect to natural gas usage.

Transportation Energy

A typical new multipurpose softball field development would consume transportation energy during operations from the use of motor vehicles associated with students, staff, and visitors to the multipurpose softball field. The efficiency of these motor vehicles is unknown, such as the average miles per gallon. Estimates of transportation energy use are based on the overall vehicle miles traveled (VMT) and its associated transportation energy use.

Trips associated with the proposed multipurpose softball field and relocation of the PAAL program already take place within the District boundaries, so operation of the proposed project would not generate new vehicle trips. As described in Section 3.XVII, *Transportation*, of this document, and in accordance with the City's Traffic Impact Analysis (TIA) Guidelines, the project site is designated Transit-Oriented Development Moderate Density (TOD-M) and is presumed to have a less than significant VMT impact. As such, operation of the proposed project would not generate a net increase in trips, and transportation fuel usage would be nominal. Impacts would be less than significant with respect to operation-related fuel usage.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The State's electricity grid is transitioning to renewable energy under California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. The RPS goals have been updated since adoption of SB 1078 in 2002. In general, California has RPS requirements of 50 percent by 2026, 52 percent by 2027, 60 percent by 2030, 90 percent by 2035, 95 percent by 2040, and 100 percent by 2045.

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. The land uses accommodated by the proposed project would not change (school use), and the proposed project would use energy-efficient LED luminaires, which offer a longer lifespan and lower energy consumption compared to metal halide or high-pressure sodium lights. The proposed project would also include an all-electric design for the new modular buildings, which would exceed the current Building Energy Efficiency Standards and CALGreen for energy efficiency. Therefore, implementation of the proposed project would not conflict with or obstruct implementation of California's RPS Program, and this impact would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.6.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to energy were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.7 Geology and Soils

3.7.1 Summary of Impacts Identified in the Approved Project

The approved project site is not located within an Alquist-Priolo Earthquake Fault Zone and would not directly result in risk of loss, injury, or death involving the rupture of a known earthquake fault. Seismic ground shaking effects at the approved project site may occur during a strong earthquake along the fault. Construction activities would adhere to the latest version of the California Building Code, the Uniform Building Code, and all other applicable federal, State, and local codes relative to seismic criteria. The approved project would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking. A less than significant impact would occur.

The northeast corner of the approved project site is located in an area identified as a generalized liquefaction susceptibility zone on the State of California Seismic Hazard Zones Map, and the potential for liquefaction is considered moderate to high. The approved project would be designed and constructed in accordance with the recommendations from the final geotechnical investigation and the latest version of the California Building Code, the Uniform Building Code, and all other applicable federal, State, and local codes. Impacts would be less than significant.

The Poly HS campus is not identified as an area prone to seismically induced landslides, and the generally flat site does not facilitate landslide potential; therefore, impacts associated with landslides would be less than significant. The approved project would be required to implement best management practices (BMP) as part of an erosion control plan and a Stormwater Pollution Prevention Plan (SWPPP) for construction activities. Conformance with applicable erosion control regulations and the required construction BMPs during construction activities would reduce impacts related to the loss of topsoil to less than significant. The approved project site and surrounding areas are essentially flat with no dramatic sloping zone. Geotechnical measures

incorporated into the project design and compliance with the existing regulations would ensure that impacts from unstable soils would be less than significant.

Due to a lack of clay content in soils underlying the approved project site and previous grading and development on-site, it is unlikely that the site contains expansive soils. Therefore, implementation of the approved project would result in a less than significant impact associated with expansive soils.

The approved project would rely on existing sewer infrastructure to accommodate wastewater disposal requirements. No septic tanks were included in the approved project. The Adopted MND determined no impacts would occur related to soils incapable of supporting septic tanks or alternative wastewater disposal systems.

No fossil localities lie directly within the approved project site. However, paleontological sensitivity could be considered low to moderate in the overall area. Mitigation measures MM CUL-1 through MM CUL-5 would reduce impacts associated with unanticipated finds and resources recovery; therefore, with implementation of MM CUL-1 through MM CUL-5, impacts to paleontological resources were reduced to less than significant.

3.7.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed/ Modified Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed/ Modified Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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.	NI	No	No	No	**Yes**
ii) Strong seismic ground shaking?	LTS	No	No	No	**Yes**
iii) Seismic-related ground failure, including liquefaction?	LTS	No	No	No	**Yes**
iv) Landslides?	LTS	No	No	No	**Yes**
b) Result in substantial soil erosion or the loss of topsoil?	LTS	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed/ Modified Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	LTS	No	No	No	**Yes**
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?	LTS	No	No	No	**Yes**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	NI	No	No	No	**Yes**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	LTS/M	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Informed land-use decisions require information about California's geologic and seismic hazards, such as surface rupture, ground failure, landslides, liquefaction, soil erosion, and subsidence. The California Geological Survey (CGS) provides technical information and advice about landslides, erosion, sedimentation, and other geologic hazards to the public, local governments, agencies, and industries that make land-use decisions in California. Surface rupture is when the ground breaks along the surface trace of a fault in an earthquake. Liquefaction is a process by which water-saturated granular soils transform from a solid to a liquid state during strong ground-shaking. A seismically induced landslide is a general term for falling, sliding, or flowing mass of soil, rocks, water, and debris caused by an earthquake. Erosion is displacement of soil, usually by moving water and wind.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazard of surface fault rupture. The Seismic Hazards Mapping Act, passed in 1990, addresses other earthquake hazards, including liquefaction and seismically induced landslides.

IMPACT ANALYSIS

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.

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the last 11,000 years (DOC 2025c). The project site is located approximately 0.3 mile east of the Poly HS campus. Based on the California Department of Conservation fault activity map of California, the project site is not within an Alquist-Priolo Earthquake Fault Zone for fault rupture hazard (DOC 2025d). The closest Alquist-Priolo Earthquake Fault Zone, the Newport-Inglewood-Rose Canyon fault zone, is approximately 1.3 miles east of the project site. The project site does not lie on or near a fault rupture hazard zone. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

ii) Strong seismic ground shaking?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site, like most areas in California, is subject to ground movement associated with earthquakes along the active faults. According to the Long Beach General Plan Seismic Safety Element, the City is seismically active (Long Beach 1988). It has historically experienced major earthquakes—a significant example is the Long Beach Earthquake of 1933 (Long Beach 1988). 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 closest active fault is approximately 1.3 miles east of the project site (DOC 2025d). The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the Poly HS multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS.

As with the approved project, 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, evacuation, foundations, retaining walls, and site demolition. Additionally, the Division of State Architects (DSA) would be required to review and approve the project plans, which would ensure that the structures are sufficiently designed to withstand ground shaking. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

iii) Seismic-related ground failure, including liquefaction?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based on five main contributing factors: 1) Groundwater depth; 2) Soil type; 3) Relative density; 4) Initial confining pressure; and 5) Intensity and duration of ground shaking. While a portion of the approved project site (Poly HS campus) is located in a liquefaction

zone, the project site is not within an identified liquefaction zone nor in the vicinity of such a zone (CGS 2025). Additionally, the proposed project would be designed and constructed to withstand liquefaction potential consistent with the CBC and DSA review, which would ensure that impacts related to liquefaction would be reduced to less than significant. Therefore, no impact impacts related to liquefaction would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

iv) Landslides?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is flat and is within an area characterized as urban and flat. According to the United States Geological Survey (USGS) United States Landslide Inventory and Susceptibility map, the project site is not in an identified landslide susceptibility zone (USGS 2025a). Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Result in substantial soil erosion or the loss of topsoil?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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 flat terrain, which decreases the project's potential to accelerate erosion. The project site is developed with the existing PAAL campus and surface parking lot. Implementation of the proposed project would require limited earthwork, which includes grading of the entire PAAL campus, new structures and bleachers, drill holes for installation of proposed light poles, and utility trenching. The proposed project does not contain any subterranean levels and would not require extensive excavation, which could expose more soils to erosion. Additionally, no ground disturbing activities beyond those identified in the Approved MND are required to support the relocation of PAAL uses to the Poly HS campus. Because the proposed project 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 Construction Storm Water Pollution Prevention Plan (SWPPP), including a best management practice (BMP) program to address construction-related discharges. The SWPPP for the proposed project would describe construction best practices for erosion control at the site. Therefore, the proposed project would not result in substantial soil erosion or loss of topsoil, and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As discussed in Section 3.7a.iii and iv of this document, the project site is not in a liquefaction zone or a landslide zone. Lateral spreading is a type of liquefaction-induced ground failure. Liquefaction transforms the subsurface layer into a fluid mass that may move downslope toward a free face (such as a river channel or an embankment). Lateral spreading can cause large horizontal displacements, which typically damages pipelines, utilities, bridges, and structures. Due to the project site not being in an identified liquefaction zone, the potential for lateral spreading is considered low (Caltrans 2020).

According to the USGS Areas of Land Subsidence in California, the project site is in an area subject to subsidence due to oil extraction (USGS 2025b). The proposed project would be designed and constructed to withstand landslide, liquefaction, lateral spreading, subsidence, liquefaction, or collapse potential. With adherence to the CBC and with DSA's review, the proposed project would not result in or contribute to on- or off-site impacts. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Expansive soils contain certain types of clay minerals that shrink when they dry out and swell when they get wet, which can result in cracked building foundations and, in some cases, structural distress of the buildings themselves. According to Websoil survey, the project site is in Urban land-Windfetch-Typic Haploxerolls complex, 0 to 2 percent slopes. This soil is well drained, has a low runoff class, and has no frequency of flooding (USDA 2025). Additionally, the project site is currently developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need

for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Like the approved project, the proposed project would not require the installation or use of a septic tank or alternative wastewater disposal system. The proposed project would connect to existing wet utility connections. Therefore, no impacts would result from soil conditions in relation to septic tanks or other on-site water disposal systems.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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. According to the Paleontological Resource Assessment prepared for the Long Beach School District Facility Master Plan in 2017, no known fossil localities from the National History Museum Los Angeles County (NHMLAC) database had been identified within the boundaries of a school or administrative site of the District; however, multiple fossil localities have been identified in the vicinity of the District facilities at various depths (from 5 feet to 60 feet below the ground surface) in the fossiliferous, older Quaternary alluvium deposits that currently underlie all of the District facility locations (PCR Services Corporation 2017b). Additionally, as identified in the Approved MND, the paleontological sensitivity for the Poly HS campus and surrounding area, including the project site, is considered low to moderate, given the fossil localities recorded within the half-mile radius study area surrounding the Poly HS campus (District 2023).

Though paleontological resources are not expected, it is possible that unknown paleontological resources could be discovered during grading activities and utility trenching for the proposed project. Similar to the approved project, implementation of mitigation measures CUL-1 through CUL-5 would ensure that impacts to unknown paleontological resources are less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.7.3 Adopted Mitigation Measures Applicable to the Proposed Project

Mitigation measures MM CUL-1, MM CUL-2, MM CUL-3, MM CUL-4, and MM CUL-5 in the Adopted MND shall apply.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 Summary of Impacts Identified in the Approved Project

The approved project was anticipated to generate greenhouse gas (GHG) emissions from area sources, energy usage, waste disposal, water usage, pool heater boiler, and construction equipment. The approved project would not result in an increase in student enrollment or in new use on campus, the approved project was not anticipated to generate any new vehicle trips to the campus and no new mobile source emissions would be created. The approved project's GHG emissions were calculated with the CalEEMod model based on the construction and operational parameters. The approved project would create 1,167 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year and would implement the applicable measures in the City of Long Beach Climate Action Plan (CAP); therefore, impacts were less than significant.

The Adopted MND determined that the approved project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plan for the approved project is the Long Beach CAP. The approved project is consistent with the Priority Mitigation Actions in the Climate Action and Adaptation Plan (CAAP) and would be consistent with all applicable policies of the City of Long Beach CAP; therefore, implementation of the proposed project would not conflict with any applicable plan that reduces GHG emissions. This impact was less than significant.

3.8.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	LTS	No	No	No	**Yes**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHG), 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 (CH4), 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[4].

[4] 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.

Information on manufacturing of cement, steel, and other "life cycle" emissions that would occur as a result of the proposed project are not applicable and are not included in the analysis[5]. Black carbon emissions are not included in the GHG analysis because the California Air Resources Board (CARB) does not include this pollutant in the state's Senate Bill 32 (SB 32) inventory and treats this short-lived climate pollutant separately.[6] A background discussion on the GHG regulatory setting and GHG modeling can be found in Appendix A of this Addendum.

IMPACT ANALYSIS

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS.

Long Beach Climate Action and Adaptation Plan

State CEQA Guidelines Section 15183.5(b), Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, allows for lead agencies to analyze and mitigate the significant effects of GHG emissions. Pursuant to State CEQA Guidelines Section 15183.5(b), later project specific

[5] 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 Project 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).

[6] Particulate matter emissions, which include black carbon, are analyzed in Chapter 3.2, 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).

environmental documents may tier from and/or incorporate by reference the GHG reduction plan so long as it includes the following plan elements:

- Quantifies greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establishes a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable.
- Identifies and analyzes the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establishes a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.
- Is adopted in a public process following environmental review.

The City adopted its Climate Action and Adaptation Plan (CAAP) in August 2022 to aid in reducing GHG emissions and better adapt to climate change impacts (Long Beach 2022a). The CAAP also includes the City's community-wide GHG inventory and climate vulnerability assessment, which provided fundamental local data to develop the CAAP actions. This comprehensive planning document will help the City comply with various local, regional, state, and federal regulations to significantly reduce GHG emissions. The City's near-term target to reduce per-service-population emissions (i.e., residents plus employees) from 4.48 $MTCO_2e$ per service population in 2015 to 3.04 $MTCO_2e$ per service population in 2030 was selected based on CARB's 2017 Scoping Plan. The long-term 2045 emission target was set to achieve Citywide net carbon neutrality consistent with Executive Order (EO) B-55-18. The CAAP has been incorporated into the Long Beach General Plan Land Use Element update to meet the requirements of SB 379, which states that cities or counties must include climate adaptation and resiliency strategies in their general plans to ensure the safety and protection of their communities.

The CAAP identified that with implementation of the GHG reduction measures and State reduction efforts, the City's GHG emissions would be met and slightly exceed the 2030 target with an estimated 2.78 $MTCO_2e$ per service population. However, the City would not achieve its 2045 emissions target and would require additional action to achieve its ambitious carbon neutrality goal. The City's CAAP is a qualified GHG reduction plan for near-term projects under

SB 32. Although the City's CAAP was adopted prior to AB 1279 in September 2022, it provides a pathway to be on a trajectory to achieve these long-range targets.

For the purposes of this analysis, as with the approved project, the CAAP GHG Emission Consistency Review Checklist is used as the significance threshold for this project. Therefore, if the project is not determined to be consistent with the City's General Plan and CAAP GHG Emission Consistency Review Checklist, then GHG emissions would be considered potentially significant in the absence of reduction measures.

Demonstrate Consistency with CAAP GHG Emission Reduction Actions

All projects must demonstrate consistency with the City's General Plan, evaluate if the proposed project screens out of the CAAP Action Consistency checklist, and demonstrate consistency with CAAP GHG Emission Reduction Actions or document why the strategies or measures are not applicable/infeasible. Given that the proposed project would be consistent with the existing land use designation of the City's General Plan Land Use Element, quantification of GHG emissions would not be necessary. However, emissions are provided for informational purposes (see Table 8, *Project-Related Operation GHG Emissions*, below).

After comparing the project to the site's land use designation from the City's General Plan Land Use Element, the next step in determining consistency with the City's CAAP is to show compliance with CAAP GHG Reduction Actions Consistency Checklist. The City's CAAP Action Consistency Checklist is drawn from Appendix D of the CAAP Environmental Impact Report (EIR) (Long Beach 2022b) and is presented in Table 6, *City of Long Beach CAAP Reduction Actions Consistency* Checklist. Table 6 shows that, like the approved project, the proposed project is consistent with the City's CAAP Action Consistency checklist.

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
Step 1: General Plan and 2019 Land Use Element Consistency	
1. The Project is Consistent with the City's General Plan Land Use Element. The growth projections outlined in the 2019 General Plan Land Use Element were used in the City's CAAP to estimate Citywide GHG emissions over time. Therefore, new development projects must be consistent with the Land Use Element to be consistent with the CAAP. For City staff to determine a project's consistency with the Land Use Element, please answer the following question	Consistent. As further described in Section I, *Aesthetics*, according to the City of Long Beach General Plan, the project site is designated Transit-Oriented Development Moderate Density (TOD-M) with a Specific Plan and/or Downtown Plan Boundaries overlay. Additionally, the project site is zoned Specific Plan-Midtown Specific Plan District (SP-1). The proposed project does not include a general plan amendment or zone change and would not conflict with existing zoning on-site. Therefore, the proposed project would be consistent with the existing land use designation of the General Plan's

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
and provide explanation with supporting documentation. Is the proposed project consistent with the existing land use designation of the 2019 Land Use Element? If "Yes," proceed to the "CAAP Action Consistency" section below. If "No," proceed to Item 2.	Land Use Element and would be with the surrounding residential and commercial character. Because the proposed project is consistent with this criterion, this analysis proceeds to the "CAAP Action Consistency" portion of the CAAP Checklist, as instructed.
Step 3: CAAP Action Consistency	
1. TIER 1: Zero-Carbon Electricity For all projects except heavy industry (but including light industrial projects), the project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options: 1. Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project's estimated energy demand to the maximum extent feasible. 2. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time Southern California Edison provides 100% carbon-free electricity for all accounts by default. 3. A combination of #1 and #2 such that 100% of the project's electricity is zero-carbon. *Supports CAAP Measures: BE-1, BE-2, BE-3*	Consistent. The proposed project would adhere to all applicable Building Energy Efficiency Standards and CALGreen requirements, which established energy-efficiency, water conservation, material conservation, and overall sustainable design standards. The proposed project would use energy-efficient LED luminaires, which offer a longer lifespan and lower energy consumption compared to metal halide or high-pressure sodium lights. Additionally, the proposed project would include an all-electric design for the new modular building, which would exceed the current Building Energy Efficiency Standards and CALGreen for energy efficiency.
2. TIER 1: Municipal Projects Only Reduce Energy Use and Supply the Project with Renewable Electricity The project must incorporate the following design elements to the maximum extent feasible:	Not Applicable. The proposed project would provide a new space for facilities and events that already occur on the Poly HS campus and would continue to serve the existing student population in the area. Therefore, the proposed project is not a municipal project, and this checklist item does not apply to the proposed project.

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
1. Incorporate strategic energy management programs to reduce building energy demands. 2. Energy efficiency design features to reduce electricity and natural gas energy use beyond Title 24 Building Energy requirements. 3. Install on-site renewable energy systems, such as rooftop solar PV. 4. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time Southern California Edison provides 100% carbon-free electricity for all accounts by default. *Supports CAAP Measures:* BE-6	
3. TIER 1: Comply with all City building energy codes and ordinances The project must comply with all applicable City building energy codes and ordinances at the time of project approval. This includes, but is not limited to, any requirements for electrification, energy use intensity factors, zero-net-energy construction, CALGreen Tier 2 or other energy measures, or LEED requirements. *Supports CAAP Measures*: BE-7	Consistent. The proposed project would adhere to all applicable Building Energy Efficiency Standards and CALGreen requirements. The proposed project would use energy-efficient LED luminaires, which offer a longer lifespan and lower energy consumption compared to metal halide or high-pressure sodium lights. Any increase in electricity use associated with the field lighting would be limited to occasional evening and nighttime sporting events, minimizing overall energy consumption. The proposed project would also include an all-electric design for the new modular building, which would exceed the current Building Energy Efficiency Standards and CALGreen for energy efficiency. As a result, the proposed project would be consistent with this action.
4. TIER 2: Building Energy Efficiency This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column. Projects are encouraged to incorporate energy-efficiency measures into the design,	Not Applicable. The proposed project would involve demolition of the existing PAAL campus and redevelopment of the site with a replacement multipurpose softball field to serve Poly HS campus, and relocation of uses at the PAAL campus to existing facilities at the Poly HS campus. The proposed project would not be retrofitting an existing building. This action would not be applicable.

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
which can reduce carbon emissions while also reducing future operational costs through the following: 1. Incorporate strategic energy management programs to reduce building energy demands. 2. Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. 3. Achieve CalGreen Tier 2 or voluntary building energy measures as they apply to the retrofit. 4. Reduce or eliminate the use of natural gas in place of electricity use (i.e., replace existing natural gas appliances with electric alternatives) 5. Replace existing appliances with higher-efficiency models 6. Install high-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design 7. Participate in SoCalREN, SCE, or other energy efficiency programs 8. Conduct other energy efficiency retrofits 9. Achieve zero-net-energy *Supports CAAP Measures: BE-4, BE-5*	
Waste	
5. TIER 1: Recyclable Materials Recycling The project must comply with all State and local requirements for recycling, including, but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also:	Consistent. The proposed project would be required to comply with the Mandatory Construction & Demolition Recycling Program Requirements as stated in Long Beach's Municipal Code (LBMC) Chapter 18.67, which would divert at least 65 percent of all generated construction and demolition waste by salvage or transfer to an approved facility. The proposed project would be consistent with the action.

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
1. Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100. 2. Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 3. Ensure that all projects include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling. 4. Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling. 5. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested. 6. Work with waste hauler to provide educational material to tenants at least on an annual basis. 7. Provide compliance data to the City as required for any current auditing program. *Supports CAAP Measures*: W-1	

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
6. TIER 1: Organics Composting The project must comply with all State and local requirements for composting and organic waste collection, including, but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal Code. The project must also: 1. Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 2. Ensure that all projects include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics. 3. Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting. 4. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested.	Consistent. The proposed project would be required to comply with the state and local requirements as stated in LBMC Chapter 8.60, Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction. As stated in Section 8.60.370, Mandatory Organic Waste Disposal Reduction, the proposed project would automatically be enrolled to a collection service(s), participate in organic waste collection services, and supply adequate number of collection containers with sufficient labels. The proposed project would provide adequate disposal containers for trash, recycling, and compost on-site. The materials would be collected by the City garbage waste hauler. The proposed project would be consistent with this action.

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
5. Work with waste hauler to provide educational material to tenants at least on an annual basis. 6. Provide compliance data to the City as required for any current auditing program. *Supports CAAP Measures: W-2, W-3*	
7. TIER 2: Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with agencies to share organic processing information with interested parties. *Supports CAAP Measures: W-4*	Not Applicable. The proposed project would involve demolition of the existing PAAL campus and redevelopment of the site with a replacement multipurpose softball field to serve Poly HS campus, and relocation of PAAL uses to existing facilities at the Poly HS campus. As stated previously under "TIER 1: Organics Composting," the proposed project would be required to comply with the State and local requirements described in LBMC Chapter 8.60, Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction, to ensure proper organic waste processing. The proposed project would implement the required organics composting measures required under TIER 1. As discussed in Appendix D of the CAAP EIR (Long Beach 2022b), Tier 2 requirements are encouraged for all discretionary projects to the maximum extent feasible but are not required to demonstrate consistency with the CAAP.
Transportation	
Meets Transportation Screening Criteria Does the project meet one of the following transportation screening criteria? 1. Is the project located in a Transit Priority Area or High Quality Transit Area? 2. Does the project include local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet?	Consistent. Since the proposed project meets the transportation screening criteria of being in a Transit Priority Area and would result in less than 110 total daily vehicle trips at full buildout, this consistency analysis would not need to cover checklist items #9 to #14 (items #9 to #14 are not included in this table). As discussed in Appendix D of the CAAP EIR (Long Beach 2022b), Tier 2 requirements are encouraged

Table 6 City of Long Beach CAAP GHG Reduction Actions Consistency Checklist

Applicable Reduction Objectives and Actions	Consistency Analysis
3. Does the project include 100 percent affordable housing units (excluding the Manager's unit)? 4. Will the project result in less than 110 total daily vehicle trips at full buildout? If "Yes," skip checklist items #9 though #14 and proceed to checklist item #15 (Comply with the City's Transportation Impact Guidelines) below. If "No," proceed to checklist item #6 below. *Supports CAAP Measures*: T-1, T-2, T-3, T-5, T-6, T-7, T-8, T-9	for all discretionary projects to the maximum extent feasible but are not required to demonstrate consistency with the CAAP.
15. TIER 2: High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design Projects should maximize the following characteristics whenever feasible: 1. Located in a transit priority area or transit corridor 2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) 3. Includes 100 percent affordable housing units or an otherwise high level of affordable housing as defined by the City for the project site 4. Includes a mix of land uses 5. Includes shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount 6. Does not provide more parking than required *Supports CAAP Measures*: T-6, T-8	Consistent. As stated previously, the proposed project is within a half mile from a high-quality transit corridor or major transit stop. As described in Section XVII, *Transportation*, and in accordance with the City's Traffic Impact Analysis (TIA) Guidelines, the project site is designated as Transit-Oriented Development Moderate Density (TOD-M) and is presumed to have a less than significant VMT impact. As discussed in Appendix D of the CAAP EIR (Long Beach 2022b), Tier 2 requirements are encouraged for all discretionary projects to the maximum extent feasible but are not required to demonstrate consistency with the CAAP.
Source: Long Beach 2022b.	

Consistency with City's CAAP Adaptation Actions

All projects must demonstrate consistency with the CAAP Adaptation Actions or document why the strategies are not applicable/infeasible. A project could result in a potentially significant GHG emissions impact if found inconsistent with the applicable CAAP Adaptation Actions. Table 7, *Consistency Analysis with the City of Long Beach CAAP Actions*, shows how the proposed project is consistent with the applicable CAAP Adaptation Actions.

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
Extreme Heat (EH)	
1. Incorporate Cool Roofs, Cool Walls, Reflective Streets, Cool Surfaces, and Shade Canopies The project incorporates the following features into its design, but not less than the California Energy Code: 1. Cool roofs and/or walls in place of dark roofs and/or conventional walls 2. Cool pavements and reflective street materials 3. Shade canopy installations 4. Other heat island mitigation design features *Supports CAAP Measures*: EH-1, EH-2	Consistent. The proposed project would adhere to all applicable Building Energy Efficiency Standards and CALGreen requirements. Additionally, the proposed project does not include the removal of trees along the public rights-of-way surrounding the project site or from City-owned properties. Therefore, the proposed project would support this CAAP Adaptation Action.
2. Incorporate Tree Plantings and Expands Urban Forest Cover The project enhances and expands urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees & plants. *Supports CAAP Measures: EH-3*	Not Applicable. The City is the responsible party for this measure. The proposed project would include the removal of ornamental trees on the PAAL campus. However, the proposed project does not include the removal of trees along the public rights-of-way surrounding the project site or from City-owned properties. This CAAP Adaptation Action is not applicable to the proposed project.
3. Incorporate Bus Shelter Amenities For any project that includes the installation of a new bus shelter, the project must include	Not Applicable. The proposed project would involve demolition of the existing PAAL campus and redevelopment of the site with a replacement multipurpose softball field to serve Poly HS campus,

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
bus shelter amenities such as shade structures. *Supports CAAP Measures*: EH-7	and relocation of PAAL uses to existing facilities at the Poly HS campus. The proposed project would not install a new bus shelter, and therefore this CAAP Adaptation Action is not applicable to the proposed project.
Air Quality (AQ)	
4. Install Photocatalytic Tiles The project includes the installation of photocatalytic tiles on outdoor surfaces, particularly in areas of the City with the poorest air quality. *Supports CAAP Measures: AQ-1*	Consistent. While the proposed project does not specifically include photocatalytic tiles on outdoor surfaces, the proposed project would adhere to all applicable Building Energy Efficiency Standards, and CALGreen requirements. The proposed project's design would not preclude the future use of photocatalytic tiles, and the exterior materials would be required to meet specific insulation performance standards established in the California Building Energy Efficiency Standards. Additionally, the proposed project would use energy-efficient LED luminaires, which offer a longer lifespan and lower energy consumption compared to metal halide or high-pressure sodium lights. Any increase in electricity use associated with the field lighting would be limited to occasional evening and nighttime sporting events, minimizing overall energy consumption. The proposed project would not conflict with implementation of this CAAP Adaptation Action.
5. Include Urban Agriculture The project includes urban agriculture in the form of community or private gardens. *Supports CAAP Measures:* AQ-2	Not Applicable. The City is the responsible party for this measure. The proposed project would not convert farmland, forest land, or timberland to nonagricultural uses. This CAAP Adaptation Action is not applicable to the proposed project.
6. Use Electric Lawn and Garden Equipment, Outdoor Power Equipment, and Other Small Equipment The project prohibits the use of gasoline-powered small equipment, including lawn and garden equipment and outdoor power	Not Applicable. The City is the responsible party for this measure. The proposed project would redevelop the site with a new multipurpose softball field to serve Poly HS campus, and relocation of PAAL uses to existing facilities at the Poly HS campus. This CAAP Adaptation Action is not applicable to the proposed project.

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
equipment, for all tenants and owners. The project provides educational materials to tenants regarding the SCAQMD Electric Lawn and Garden Equipment Incentive and Exchange Program, Commercial Lawn & Garden Battery Buy-Down Rebate Program, and Residential Lawn Mower Rebate Program as well as the new requirements of AB1346. This requirement must be stipulated in the contract specifications for the project's future tenants and any landscaping contracts for the property or tenants. *Supports CAAP Measures: AQ-4*	
Drought (DRT)	
7. Implement Water Use Efficiency and Water Conservation The project incorporates water use efficiency and conservation measures, including: 1. CalGreen Tier 1 and Tier 2 voluntary water conservation measures 2. Low-flow or high-efficiency water fixtures 3. Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance (MWELO) 4. Drought-tolerant and native plant species only 5. Other applicable strategies to reduce water use *Supports CAAP Measures: DRT-1*	Consistent. The proposed project would be required to comply with the provisions of the most current CALGreen Code, which contains requirements for indoor water use reduction and site irrigation conservation. Therefore, the proposed project would be consistent with this CAAP Adaptation Action.
8. Incorporate Green Infrastructure and Green Streets The project shall incorporate green infrastructure such as permeable pavement,	Consistent. The proposed project would use nonpotable irrigation water lines to irrigate the proposed natural turf and does not include development of streets. Therefore, the proposed project would support this CAAP Adaptation Action.

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
bioretention areas, bioswales, or vegetated strips. *Supports CAAP Measures:* DRT-3	
9. Use Recycled Water and Greywater for Non-Potable Uses; includes Rainfall Capture The project uses recycled water and/or greywater for non-potable uses and incorporates water reuse strategies on-site, such as rainfall capture systems. The project would: 1. Require use of reclaimed / recycled water and/or grey water for outdoor uses 2. Install residential greywater systems that meet appropriate regulatory standards 3. Install rainfall capture systems 4. Install dual plumbing for the use of recycled water *Supports CAAP Measures: DRT-4, DRT-5*	Consistent. The proposed project would be required to comply with the applicable provisions of the most current CALGreen Code, which contains requirements for indoor water use reduction and site irrigation conservation. Therefore, the proposed project would implement this CAAP Adaptation Action.
Sea Level Rise and Flooding	
10. Comply with all City Floodplain and Sea Level Rise Regulations The project complies with all City and FEMA floodplain regulations as necessary to limit, elevate, or provide floodproofing standards in areas designated as vulnerable to flooding in order to minimize physical damage to development. This includes compliance with all applicable FEMA, California Building Code, City Building Code Chapter 18.40 and Floodplain Ordinance requirements.	Consistent. The proposed project would be required to comply with all applicable City and FEMA floodplain regulations, including sea level rise regulations and ordinances. As discussed in Section 3.10, *Hydrology and Water Quality*, of this document, the project site is located within Zone X, which is an area of minimal flood hazard. Therefore, the proposed project would support this CAAP Adaptation Action.

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
The project also complies with all applicable sea level rise regulations and ordinances, such as the Local Coastal Program. The project applicant must notify all residents, tenants, and occupants if the project is located on a FEMA floodplain map and a sea level rise inundation map and shall provide these maps to residents, tenants, and occupants. *Supports CAAP Measures*: FLD-1, FLD-2	
11. Comply with the City's Current Stormwater Management Plan The project must comply with the City's Current Stormwater Management Plan and all related ordinances related to stormwater management and sea level rise scenarios evaluated by the City. *Supports CAAP Measures:* FLD-5	Consistent. Implementation and approval of a Storm Water Pollution Prevention Plan (SWPPP) would be required prior to construction for the proposed project. Therefore, the proposed project would support this CAAP Adaptation Action.
12. Ensure that All Critical Infrastructure in the Sea Level Rise Vulnerability Zone Is Elevated, Relocated, or Floodproofed For any project related infrastructure or infrastructure improvements, the project must sufficiently elevate, relocate, or install sufficient floodproofing techniques for all critical infrastructure in the City's sea level rise vulnerability zone pursuant to all City requirements. The project uses floodproofing techniques as necessary. *Supports CAAP Measures:* FLD-10	Not Applicable. The site is located away from the coast and not within a sea level rise (SLR) vulnerability zone. This CAAP Adaptation Action is not applicable to the proposed project.
13. Adapt Street Hardscapes and Waterfront Streets and Paths	Not Applicable. The site is located away from the coast and not located within a SLR vulnerability

Table 7 Consistency Analysis with the City of Long Beach CAAP Actions

Applicable CAAP Adaptation Action Consistency Requirement	Consistency Analysis
For any project related street improvements within the SLR vulnerability zone, the project must consider elevating and extending street hardscapes such as curbs to eliminate gaps that could become flood pathways, including those identified in the CAAP. *Supports CAAP Measures:* FLD-14, FLD-15	zone. This CAAP Adaptation Action is not applicable to the proposed project.

Source: Long Beach 2022b.

As mentioned in the tables above, the proposed project includes development standards that promote energy efficiency and water efficiency. These features include energy-efficient LED luminaires and all-electric design for the new modular buildings, which would exceed the current Building Energy Efficiency Standards and CALGreen for energy efficiency. Therefore, the proposed project would be consistent with the City's CAAP and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The proposed project consistency analysis with the City's CAAP under State CEQA Guidelines Section 15183.5 presented above represents the basis for the significance determination contained in this Compliance Checklist. Nonetheless, GHG emissions generated during construction and operation of the proposed project is presented below for informational purposes only (i.e., not used to determine project impact significance).

Project GHG Emissions

Project-related construction and operation-phase GHG emissions are shown in Table 8, *Project-Related Operation GHG Emissions*. Vehicle trips associated with the relocated multipurpose softball field and PAAL campus already take place within the District boundaries and therefore, operation of the proposed project would not generate new vehicle trips and mobile source emissions. Use of the project site for events and sports activities would replace similar events currently held at the Poly HS campus, and such events would occur on an intermittent basis. Prior to demolition, users at PAAL would be relocated to existing facilities at the Poly HS campus, requiring no physical changes or improvements not already analyzed in the Adopted MND. Additionally, the proposed project would not substantially increase water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), or energy usage (i.e., natural gas and electricity) compared to existing operations as a full-time

school campus. Total annual average construction emissions were estimated to be 333 $MTCO_2e$ and were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of the proposed project.

Table 8 Project-Related Operation GHG Emissions

Source	GHG Emissions ($MTCO_2e$/Year)
Mobile	<1
Area	<1
Energy	1
Water	1
Solid Waste	<1
Refrigerants	<1
30-Year Construction Amortization[1]	11
Total	**14**

Source: CalEEMod, Version 2022.1.

Notes: MTons = metric tons; $MTCO_2e$ = metric ton of carbon dioxide equivalent

[1] Total construction emission are amortized over 30 years per South Coast AQMD Working Group methodology (South Coast AQMD 2008b).

As discussed previously, the proposed project would be consistent with the City's CAAP according to State CEQA Guidelines Section 15183.5 and would therefore not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Statewide strategies to reduce GHG emissions in the 2022 Climate Change Scoping Plan include: implementing SB 100, which expands the RPS to 60 percent by 2030; expanding the Low Carbon Fuel Standards (LCFS) to 18 percent by 2030; implementing the Mobile Source Strategy to deploy zero-electric vehicle buses and trucks; implementing the Sustainable Freight Action Plan; implementing the Short-Lived Climate Pollutant Reduction Strategy, which reduces methane and hydrofluorocarbons to 40 percent below 2013 levels by 2030 and black carbon emissions to 50 percent below 2013 levels by 2030; continuing to implement SB 375; creating a post-2020 Cap-and-Trade Program; and developing an Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

The proposed project's GHG emissions would be reduced through compliance with the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32, SB 32, and AB 1279. Additionally, the proposed project would include an all-electric design for the proposed modular buildings, which would further reduce its energy consumption and emissions, consistent with the GHG emissions reductions strategies of the 2022 Scoping Plan. 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 mentioned previously, the reconstructed Poly HS multipurpose softball field at the project site and relocation of the PAAL uses to existing facilities at the Poly HS campus would continue to serve the existing Poly HS student population and would not result in significant VMT impacts per the City's TIA Guidelines. Therefore, the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the Connect SoCal Plan, and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.8.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to greenhouse gas emissions were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9.1 Summary of Impacts Identified in the Approved Project

During construction and operation, the approved project would require the transport, use, and disposal of hazardous materials. However, transport, use, and disposal would occur in compliance with all applicable regulations governing such activities. Construction-related materials include petroleum and lubricants. Operation-related materials include maintenance items such as chlorine for the proposed pool. By following proper handling and health and safety practices, impacts would be less than significant.

Construction activities at the approved project site have the potential to involve interaction with asbestos-containing materials (ACMs) or lead-containing surfaces (LCS). However, construction activities would comply with federal and State laws, which include notification to the South Coast AQMD. Additionally, containment measures required in the Construction General Permit would reduce impacts. Therefore, impacts related to the release of hazardous materials would be less than significant.

The Adopted MND identified Theodore Roosevelt Elementary School within 0.25 mile of the approved project site. It was determined that adherence to all local, county, State, and federal policies regarding hazardous materials would reduce impacts to a less than significant level associated with hazardous materials within a quarter-mile of an existing school.

The Adopted MND determined that the approved project site is not on a list of hazardous materials compiled pursuant to Government Code Section 65962.5. Additionally, the approved project site is not within two miles of a public airport and is not within an area susceptible to wildland fires. No impact would occur.

3.9.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	LTS	No	No	No	**Yes**
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?	LTS	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	LTS	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	NI	No	No	No	**Yes**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The proposed project and project site were analyzed to determine the potential for hazards or hazardous materials to occur on-site. Background research included an evaluation of the GeoTracker and EnviroStor websites, operated by the State Water Resources Control Board (SWRCB) and the California Department of Toxic Substances Control (DTSC).

IMPACT ANALYSIS

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.

Construction

The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the Poly HS multipurpose softball field. The proposed project includes the reconstruction of the multipurpose softball field from the Poly HS campus to the PAAL campus, and relocation of PAAL uses to existing facilities at the Poly HS campus. The proposed project also includes the restriping of the existing surface parking lots at the project site. Like the approved project, 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. During the construction of the proposed project, the temporary storage and use of potentially hazardous petroleum hydrocarbon fuels and lubricants at the project site would occur. Other potentially hazardous materials (pesticides/fertilizers) may also be used. The delivery of hazardous materials to the project site would be made by carriers following 49 Code of Federal Regulations (CFR) Part 173. In addition, the transportation of hazardous materials would be subject to 49 CFR Part 172, which contains the hazardous materials communication requirements, including shipping papers, marking, labeling, and placarding, in addition to emergency response requirements, training, and security plan. By following proper handling, health and safety practices, hazards communication, and emergency response procedures, any impact that would create a significant hazard to the public or the environment through the routine transport or use of hazardous materials at the project site would be less than significant.

Operation

Operation of the proposed project would transport, use, store, and dispose of small amounts of hazardous materials typical of school facilities, such as cleaning and maintenance supplies (e.g., cleaners, gasoline, paint, pesticides). The proposed project would involve operation of a multipurpose softball field, sports lighting, bleachers, modular storage, concessions building, and other project components. No manufacturing, industrial, or other uses using large amounts of hazardous materials would occur within the project site. Compliance with applicable federal and state laws and regulations governing the use, storage, transport, 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. Therefore, the proposed project would not create substantial hazards to the public or the environment. Impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.

Construction

As discussed in Section 3.9(a) of this document, construction activities would require small amounts of hazardous materials, including vehicle fuels, lubricants, grease, and transmission fluids as well as paints and coatings, which are all materials consistent with the approved project. The use, transportation, and disposal of hazardous materials would be in accordance with regulatory standards and manufacturers' specifications. Hazardous materials would be used in small quantities and stored so they do not pose significant safety hazards. Additionally, as with the approved project, prior to demolition of structures, the District would test for potentially hazardous building materials, such as lead and asbestos, in order to ensure containment during the demolition.

Operation

Operation of the proposed project would transport, use, store, and dispose of small amounts of hazardous materials typical of school facilities such as cleaning and maintenance supplies (e.g., cleaners, gasoline, paint, pesticides). Operation of the proposed project 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. The proposed softball/multipurpose fields are not considered a use that would result in significant hazards to the public or the environment. Compliance with applicable federal and State laws and regulations governing the use, storage, transport, and disposal of hazardous materials would ensure impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is developed with structures that support the PAAL program and striped parking lots associated with the PAAL campus. The proposed project would consist of the demolition of all existing structures associated with the PAAL campus on-site, relocation of PAAL uses to existing facilities at the Poly HS campus, and the installation of a multipurpose softball field, sports lighting, bleachers, modular buildings, and other project components. The proposed project would retain the existing parking lots and restripe the lots to include ADA compliance parking stalls. As stated in Section 3.9(a) of this document, and similar to the approved project, construction activities would require small amounts of hazardous materials, including vehicle fuels, lubricants, grease, and transmission fluids as well as paints and coatings. Additionally, operation of the proposed project would transport, use, store, and dispose of small amounts of hazardous materials typical of school facilities such as cleaning and maintenance supplies (e.g., cleaners, gasoline, paint, pesticides), consistent with current operation. Operation of the proposed project would use cleaners and other chemicals in small quantities, which are not typically considered hazardous materials that could result in a significant hazard to the public or the environment. The proposed replacement multipurpose softball field would not be considered a use that would result in the release of hazardous emissions or hazardous materials. The proposed project would also comply with applicable federal and State laws and regulations governing the use, storage, transport, and disposal of hazardous materials.

The PAAL campus is an annex site to the Poly HS campus, which is located 0.3 mile or 2 blocks east of the project site. The Theodore Roosevelt Elementary School and George Washington Middle School are within a quarter-mile of the project site. The proposed project includes the operation of a replacement multipurpose softball field that would serve the existing Poly HS sports programming, which would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste on the project site. Therefore, impacts would be less than significant. Relocation of uses at PAAL to existing facilities at the Poly HS campus would also not emit hazardous materials and are consistent with the existing school use.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. California Government Code Section 65962.5 requires referencing a list of hazardous materials sites, hazardous waste discharges for which the SWRCB 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.

Six environmental lists were searched for hazardous materials on the project site.

- GeoTracker. State Water Resources Control Board (SWRCB 2025)
- EnviroStor. Department of Toxic Substances Control (DTSC 2025a)
- EnviroMapper. United States Environmental Protection Agency (USEPA 2025)
- Solid Waste Information System (SWIS). California Department of Resources Recovery and Recycling (CalRecycle 2025a)
- Cortese List. Department of Toxic Substances Control (DTSC 2025b)
- CalEPA. California EPA (CalEPA 2025)

The PAAL campus is listed as an active generator of hazardous waste in the EnviroMapper list. The project site was not identified on any other list of hazardous materials sites. Hazardous waste generated by the project site consists of oxygenated solvents, hydrocarbon solvents, ignitable, barium, and cadmium (USEPA 2025). Small amounts of these materials are typically present in school settings for maintenance, electronics, and chemistry labs. The project site generated 0.0485 tons of hazardous waste in 2022, which is below the Very Small Quantity Generator threshold of 1,200 kilograms per year under federal regulations established by the EPA pursuant to the Resource Conservation and Recovery Act (RCRA) and under California hazardous waste regulations administered by the California Department of Toxic Substance Control (DTSC). Any hazardous waste generation and disposal are subject to federal and state regulations. Therefore, impacts related to hazardous sites on the project site creating a significant hazard to the public or the environment would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Like the approved project, the nearest airport is Long Beach Airport, which is approximately 3

miles northeast of the project site. The project site is not located within two miles of a public or private airport. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The City of Long Beach's Emergency Operation Plan (EOP) utilizes the National Incident Management System (NIMS). The NIMS is a consistent nationwide template to enable federal, State, local and tribal governments, along with the private sector and non-governmental organizations, to work together effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity, including acts of catastrophic terrorism. Additionally, the City's EOP is based on the State of California's Standardized Emergency Management System (SEMS). The SEMS provides an organizational framework and guidance for operations at each level of the State's emergency management system (Long Beach 2015).

The Long Beach Fire and Police Departments (LBFD and LBPD) handle smaller incidents that occur on a day-to-day basis. However, for large incidents the City must activate its Emergency Operations Center (EOC) at 2990 Redondo Avenue, approximately 3.5 miles northeast of the project site.

The project site is not identified or used as an EOC. The proposed project would include the demolition of existing structures at the PAAL campus within the project site and relocation of those uses to Poly HS, and the addition of a replacement multipurpose softball field, bleachers, new lighting, modular building, and other project components to the PAAL campus. The proposed project would not identify the project site as an EOC. During the construction and operation phases, the proposed project would not interfere with any of the daily operations of the LBFD or the LBPD or EOC, which support emergency planning and response efforts in the City. All construction activities would be required to be performed per the City's standards and regulations. The proposed project would be required to provide the necessary on- and off-site access and circulation for emergency vehicles and services during the construction and operation phases.

The proposed project would also be required to go through DSA's development review and permitting process and would be required to incorporate all applicable design and safety standards and regulations in the CBC to ensure that proposed project development does not

interfere with the provision of local emergency services (provision of adequate access roads to accommodate emergency response vehicles, adequate numbers/locations of fire hydrants, etc.). The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. According to the California Department of Forestry and Fire Protection's (CAL FIRE) Fire Hazard Severity Zone Viewer, the project site is not in a Very High, High, or Moderate Fire Hazard Severity Zone in a State Responsibility Area (CAL FIRE 2025). The nearest Very High FHSZ is approximately 7.5 miles west of the project site (CAL FIRE 2024). Based on the U.S. Forest Service Wildland Urban Interface (WUI), the project site is not within the WUI (USFS 2020).

The project site is flat and developed in an area of the city that is highly developed with urban uses. The proposed project would be designed in accordance with the CBC and California Fire Code. Project design plans would be reviewed by the DSA. Fire suppression equipment specific to construction would be maintained on-site. Additionally, project construction would comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. The proposed project would not change the uses or boundaries of the facilities to place buildings and structures, students, or members of the public closer to wildland fires. Therefore, the proposed project would not expose people or structures to a significant risk due to wildfires. No impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.9.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to hazards and hazardous materials were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Summary of Impacts Identified in the Approved Project

The approved project includes the installation of a new aquatic facility and other upgrades to the Poly HS campus. The District would comply with all applicable requirements regulating drainage improvements, including the preparation of a SWPPP. Compliance with applicable regulations would ensure that impacts related to water quality are less than significant.

Water usage associated with the approved project would be provided by the City of Long Beach Water Department, which receives water from imports and groundwater. Increased use of water as a result of the approved project. However, water efficient fixtures for the proposed pool building, pool filtration system, and restroom features would be utilized. Increases in water use from implementation of the approved project would be a minor increase of the existing water use on-site. Impacts to groundwater supplies would be less than significant.

The Adopted MND identified the approved project site as located within an urbanized and developed location. Ground-disturbing activities would comply with the SWPPP and BMPs from the City's Municipal Separate Storm Sewer System (MS4) Permit, which would result in less than significant impacts related to erosion, surface runoff, and water quality plans. Surface runoff would be similar to existing conditions on the campus and would not exceed the capacity of the existing stormwater drainage systems. Additionally, the approved project site is not located within a 100-year flood hazard area or tsunami zone. Therefore, impacts to hydrology and water quality would be less than significant.

3.10.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	LTS	No	No	No	**Yes**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	LTS	No	No	No	**Yes**
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 substantial erosion or siltation on- or off-site;	LTS	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	NI	No	No	No	**Yes**
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	LTS	No	No	No	**Yes**
iv) impede or redirect flood flows?	NI	No	No	No	**Yes**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	NI	No	No	No	**Yes**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Hydrology is the study of the movement, distribution, and quality of water throughout the Earth, and thus addresses both the hydrologic cycle and water resources. Water quality is the physical, chemical, and biological characteristics of water, characterized through the methods of hydrometry. The primary bases for such characterization are parameters which relate to drinking water, safety of human contact, and the health of ecosystems.

With respect to inundation, a seiche is a standing wave in an enclosed or partially enclosed body of water. A tsunami is a series of waves created when a body of water, such as an ocean, is rapidly displaced. A mudflow or mudslide is the most rapid (up to 80 kilometers per hour) and fluid type of downhill mass wasting.

IMPACT ANALYSIS

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. A significant impact would occur if the project discharges water into the stormwater drainage system that does not meet the quality standards of agencies that regulate surface water quality. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS. No changes beyond those already analyzed in the approved MND would occur to support the relocation of PAAL uses to the Poly HS campus. During construction at the project site (PAAL campus), water quality impacts could occur from discharge of soil through erosion, sediments, and other pollutants. The State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) program regulates industrial pollutant discharges, including construction activities for sites larger than one acre. The project site would include approximately 1.9 acres of ground disturbance. No ground-disturbing activities would occur at the surface parking lots, which would be restriped.

New construction projects can result in two types of water quality impacts: (1) short-term impacts from discharge of soil through erosion, sediments, and other pollutants during construction and (2) long-term impacts from impervious surfaces (buildings, roads, parking lots, and walkways) that prevent water from being absorbed into the ground, thereby increasing the pollutants in stormwater runoff. Impervious surfaces can increase the concentration of pollutants in stormwater runoff, such as oil, fertilizers, pesticides, trash, soil, and animal waste. Runoff from short-term construction and long-term operation can flow directly into lakes, local streams, channels, and storm drains and eventually is released untreated into the ocean.

Construction

The proposed replacement multipurpose softball field would be constructed within the boundaries of the existing PAAL campus, which is surrounded by urban development, and adjacent paved streets that currently generate nonpoint-source pollutants that are carried by storm and irrigation water into storm drains. Clearing, grading, excavation, and construction activities associated with the proposed project may impact water quality through soil erosion and increase the amount of silt and debris carried in runoff. Additionally, the use of construction materials such as fuels, solvents, and paints 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. These types of construction use and activities are consistent with the Adopted MND.

Similar to the approved project, to minimize these potential impacts, the proposed project would be required to comply with the NPDES Construction General Permit (CGP) as well as prepare a SWPPP that requires the incorporation of BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The CGP requires that prior to the start of construction activities, the District 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 issuance of a grading permit, the District is required to provide proof of filing of the PRDs with the SWRCB, which includes preparation of SWPPP.

The SWPPP must describe construction BMPs that address pollutant source reduction and provide measures/controls to mitigate potential pollutant sources which include, but are not limited to: erosion controls, sediment controls, tracking controls, non-storm water management, materials and waste management, and good housekeeping practices. Construction BMPs examples include soil binders, straw mulch, velocity dissipation devices, slope drains, sediment basin, sediment trap, sandbag barrier, straw bale barrier, storm drain inlet protection, and chemical dust suppressants. Submittal of the PRDs and implementation of the SWPPP and its associated BMPs throughout the construction phase would result in a less than significant impact.

Operation

Once the proposed project has been constructed, urban runoff could include a variety of contaminants that are typical of the operation of school athletic facilities, including those formerly at the Poly HS campus. As discussed in Impact 3.9(a), the proposed project would be required to comply with applicable federal and state laws and regulations governing the use,

storage, transport, and disposal of hazardous materials, which would ensure impacts would be less than significant.

Therefore, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Like the approved project, the City of Long Beach Utilities Department (LBUD) supplies water to the project site. There are groundwater wells located throughout the City, and the City currently has water rights to pump approximately 33,000 acre-feet of groundwater per year, fulfilling about 60 percent of its water needs. The other 40 percent of the water supply comes from imported sources, primarily the Colorado River watershed and the Sacramento-San Joaquin Bay Delta (LBUD 2025a). The project site does not contain any wells or direct groundwater connections. The project site is currently developed with impervious surfaces with limited landscaped areas. The proposed project would increase the amount of pervious surfaces on-site with the construction of the multipurpose softball field, consisting of natural turf and natural red clay track. Increases in pervious surfaces would allow more stormwater to percolate into the ground compared to existing conditions.

Maintenance of the concessions and restroom building would result in water use during events and games, and nonpotable water would be used for irrigation of turf fields. Although potable water would be consumed on a regular basis, these volumes would be substantially less than generated during an event or game. After project implementation, the project site would be utilized less compared to its current occupation as a full-time school. Water use for the existing PAAL uses would be similar to water consumption when the uses are relocated to existing facilities at the Poly HS campus. Overall, water usage as a result of the proposed project would be less than existing conditions.

Additionally, the use of the project site for softball practices and games, soccer practices, and joint-use events would relocate these events that are currently occurring on the Poly HS campus. Therefore, the proposed project's increased water demand would be low compared to existing conditions because the events at the project site are existing events that already occur on campus, and the increased water demand would only occur during events/games, which are intermittent. Therefore, the increases in water consumption from the proposed project would

be nominal and would not result in a need to increase pumping of groundwater resources. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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;

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed or dissolved, and moved from one place to another. Precipitation, running water, waves, and wind are all agents of erosion. Ordinarily, erosion proceeds imperceptibly, but when the natural equilibrium of the environment is changed, the rate of erosion can greatly accelerate. This can create aesthetic as well as engineering problems on undeveloped sites. Accelerated erosion in an urban area can cause damage by undermining structures; blocking storm drains; and depositing silt, sand, or mud on roads and in tunnels. Eroded materials can eventually be deposited in local waters, where the carried silt remains suspended in the water for some time, constituting a pollutant and altering the normal balance of plant and animal life.

Like the approved project, there are no streams or rivers on the project site. The proposed project would not involve the alteration of any natural drainage channels or any watercourse. Additionally, the project site is flat, and potential for erosion would be less than significant. The proposed project's earthwork activities include grading and utilities trenching. If not controlled, the transport of these materials to local waterways would temporarily increase suspended sediment concentrations and release pollutants attached to sediment particles into local waterways. The proposed project would be required to submit PRDs and a SWPPP to the SWRCB for approval prior to the commencement of construction activities. The SWPPP would describe BMPs to reduce erosion and siltation. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is built out with the existing PAAL campus. Currently, runoff from the project site flows to the existing curb and gutter along East 16th Street and Long Beach Boulevard. The proposed project would not involve the alteration of any natural drainage or watercourse, nor would it relocate existing storm drains. Additionally, the proposed project would increase the amount of pervious surfaces on-site with the construction of the multipurpose softball field, consisting of natural turf and natural red clay track. The increase in pervious surfaces would allow more stormwater to percolate into the ground, thereby reducing surface water runoff when compared to existing conditions. Stormwater that does not percolate into the ground would be directed to storm drains on campus and into East 16th Street and Long Beach Boulevard's existing curb and gutter, similar to existing conditions. Conditions at the Poly HS campus to support the relocation of PAAL uses would not differ from those analyzed in the Approved MND. Therefore, the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would cause flooding on- or off-site. Therefore, like the approved project, impacts related to stormwater drainage and flooding would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project would increase the amount of pervious surfaces on-site with the construction of the multipurpose softball field consisting of natural turf and natural red clay track. Increases in pervious surfaces would allow more stormwater to percolate into the ground compared to existing conditions. Stormwater that does not percolate into the ground would be directed to storm drains on campus and into East 16th Street and Long Beach Boulevard's existing curb and gutter, similar to existing conditions. As discussed in Impact 3.10(a), construction and operation of the proposed project would be required to implement BMPs that would control the amount and quality of stormwater exiting the project site. The proposed project 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.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

iv) impede or redirect flood flows?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is an annex to Poly HS and is located approximately 0.3 mile from the approved project site. According to the Federal Emergency Management Agency (FEMA) flood zone map, the project site and approved project site are not within a flood zone and are within a highly developed area of the City (FEMA 2025). Therefore, the proposed project would not result in impeding or redirecting flood flows, and no impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. 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. The project site is an annex to Poly HS and is located approximately 0.3 mile from the approved project site. There are no large water tanks in the area. The nearest enclosed body of water is the Rossmoor Retarding Basin, approximately 5.5 miles east of the project site, and the Palos Verdes Reservoir is approximately 7.5 miles east. The project site is not in an inundation zone (NID 2025; DWR 2025a).

The project site is not within a flood zone (FEMA 2025). Therefore, flood hazards are low. Additionally, the project site is approximately 1.8 miles from the Pacific Ocean and is not within a tsunami zone (DOC 2025c). Based on the foregoing, the proposed project would not risk the release of pollutants due to inundation, and no impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As discussed above, the proposed project would comply with the SWPPP and implement appropriate BMPs to address water quality impacts. The identification and implementation of BMPs identified in the SWPPP would reduce impacts associated with water quality to less than significant levels.

The project site is in the Coastal Plain of Los Angeles–West Coast, which is identified as a "Very Low" priority basin by the Department of Water Resources (DWR 2025b). The Sustainable Groundwater Management Act requires local agencies to adopt groundwater sustainability plans for high- and medium-priority groundwater basins. Therefore, because the Coastal Plain of Los Angeles–West Coast is a "Very Low" priority basin, there is no sustainability groundwater plan. The proposed project would comply with existing local, regional, and state regulations and would not obstruct implementation of a water quality control plan. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.10.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to hydrology and water quality were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.11 LAND USE AND PLANNING

3.11.1 Summary of Impacts Identified in the Approved Project

The approved project site is an established school and has a General Plan and zoning designation of Institutional, which allows for educational land uses. Implementation of the approved project would not alter the land uses currently existing on-site and would not change the General Plan and zoning designations. Therefore, the approved project would not divide an established community and would not conflict any land use plan. Impacts to land use and planning would be less than significant.

3.11.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Physically divide an established community?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The project site is in an area designated by the City of Long Beach General Plan as Transit-Oriented Development Moderate Density (TOD-M) with a Specific Plan and/or Downtown Plan Boundaries overlay. The project site is zoned Specific Plan-Midtown Specific Plan District (SP-1). The surrounding properties are also designated TOD-M and zoned SP-1. It should be noted that the project site is within the Corridor District of the Midtown Specific Plan area. The Corridor District is intended to provide housing options and neighborhood-serving uses within walking distance of a transit node. Building types include lined block, stacked flats, courtyard housing, live-work, rowhouses, and tuck-under units. Multifamily residential and mixed-use projects are in two- to four-story buildings. Single-use, neighborhood-serving uses occupy buildings between one and three stories. Mixed-use and non-residential projects are centered on key intersections while residential and public/quasi-public uses infill at midblock locations (Long Beach 2016).

IMPACT ANALYSIS

a) Physically divide an established community?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The approved project is intended to repair and upgrade school facilities for the existing student population and includes the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the athletic multipurpose softball field facility from the Poly HS campus to the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at the Poly HS campus. The project site and surrounding area are developed with urban land uses such as residential and commercial land uses. The proposed project would occur on the existing, developed PAAL campus, and no changes beyond those evaluated in the Approved MND are proposed to support the relocation of PAAL uses to the Poly HS campus. The proposed project would include the demolition of existing structures on-site and the addition of a replacement multipurpose softball field, bleachers, new lighting, new modular building, and other project components. This would be a continuation of school-related uses on the project site. The proposed project would be limited to the project site and would not change any existing driveways leading to the campus. The proposed project would not create any new land use barriers or divide or disrupt the physical arrangement of any surrounding communities. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is designated Specific Plan because it is in the Midtown Specific Plan area (Long Beach 2024). The proposed project would not alter or modify the project site's current land use and zoning designations. The project site is owned and operated by the District. School district–owned and -operated properties used for school purposes are generally exempt from City zoning and general plan regulations under Government Code Section 53094. School districts serve as the CEQA lead agency for their own projects and are not subject to local land-use permitting. The proposed project would include the demolition of existing structures on-site and the addition of a new softball and multipurpose field, bleachers, new lighting, a restroom/ticketing building, and other project components on the developed PAAL campus. Existing uses at the PAAL campus would be relocated to the Poly HS campus. The proposed uses are consistent with the existing school use and District uses at the project sites. Development of

the proposed project would not conflict with any applicable land use plans, policies, or regulations. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.11.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to land use and planning were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.12 MINERAL RESOURCES

3.12.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that the approved project would have less than significant impacts to mineral resources. The approved project site is classified as Mineral Resource Zone 4 (MRZ-4) by the State of California Division of Mines and Geology, which is defined as an area where information is inadequate to assign any other MRZ. However, the approved project would occur only on previously disturbed soils and would not result in the loss of a known mineral resource. Additionally, no existing or historic mineral resource site has been identified in or around the approved project site. Therefore, implementation of the approved project would result in no impacts to mineral resources.

3.12.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Mineral resources are commercially viable mineral or aggregate deposits, such as sand, gravel, and other construction aggregate. The California Geological Survey provides objective geologic expertise and information about California's diverse nonfuel mineral resources. Maps, reports, and other data products developed by the staff assist governmental agencies, mining companies, consultants, and the public in recognizing, developing, and protecting important mineral resources. The California Department of Conservation protects mineral resources to ensure adequate supplies for future production. The California Surface Mining and Reclamation Act of 1975 (SMARA) was developed to encourage production and conservation of mineral resources, prevent or minimize adverse effects to the environment, and protect public health and safety. This designated MRZs that were of statewide or regional importance. The classifications used to define MRZs are:

- **MRZ-1.** Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
- **MRZ-2.** Areas where the available geologic information indicates that there are significant mineral deposits or that there is a likelihood of significant mineral deposits.
- **MRZ-3.** Areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined.
- **MRZ-4.** Areas where there is not enough information available to determine the presence or absence of mineral deposits.

IMPACT ANALYSIS

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.

According to the DOC's Mineral Land Classification Map, the project site is within MRZ-1. As such, there are no indications that the project site contains significant mineral deposits or has a likelihood of containing significant mineral deposits (DOC 2013). Implementation of the proposed project would not result in the loss of availability of a known mineral resource. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.
Oil deposits are abundant in the City, and oil operations have been underway since 1936 (Long Beach 1973). Based on the DOC's Well Finder map, the project site does not contain any oil extraction activities such as wells. The nearest well is approximately 0.6 mile northwest of the project site (CalGEM 2025). Additionally, the nearest mine is approximately 20 miles east of the project site (DOC 2016). All project construction would occur within the existing PAAL campus. As such, the proposed project would not impact any mine or oil well operations in the City or result in the loss of availability of a locally important mineral resource. Therefore, the proposed project's construction and operation would not encroach upon existing oil operations. Therefore, no impacts related to the potential loss of availability of a locally important mineral resource would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.12.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to mineral resources were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.13 NOISE

3.13.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that the approved project would have less than significant impacts with mitigation incorporated for construction noise, and less than significant impacts to operational noise. The Adopted MND determined that the approved project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the campus in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Through adherence with the construction-related noise requirements provided in the City's Noise Ordinance, construction-related noise levels would not exceed any noise standards established in the General Plan or Noise Ordinance; however, the General Plan Noise Element details that the federal standards may be used when local criteria are not established. As such, the noise level standard of 90 dBA at nearby homes and daycare facility were utilized in the noise analysis. All calculated construction noise levels were determined to be within the Federal Transit Administration (FTA) daytime construction noise standard of 90 dBA for residential uses and 100 dBA for commercial uses.

New on-site sources that may be created from operation of the approved project include athletic facilities, such as practices and games at the new outdoor aquatic center, and new HVAC units on the rooftops of the new structures. Operational noise from the simultaneous operation of all new noise sources on the approved project site would create a noise level within both the City's daytime noise standards of 50 dBA between 7 am and 10 pm and the City's nighttime noise standard of 45 dBA between 10 pm and 7 am. Therefore, the operational activities for the approved project would not create a substantial long-term increase in ambient noise levels that are in excess of applicable noise standards. Impacts would be less than significant.

Construction activities, specifically use of the vibratory roller, would exceed the applied vibration threshold of 0.386 PPV. Implementation of MM NOI-1 would reduce the vibration level at the nearest off-site structure, which is a hotel approximately 10 feet north of the approved project site, to below the City's vibration threshold. Therefore, with implementation of MM NOI-1, a less than significant vibration impact is anticipated from construction of the approved project. The on-going operation of the approved project would not include the operation of any known vibration sources; therefore, a less than significant vibration impact is anticipated from the operation of the approved project.

Airport hazards were addressed in the Hazards and Hazardous Material section of the Adopted MND. Impacts related to airport hazards were determined to be less than significant.

3.13.2 Impacts Associated with the Proposed Project

Would the project result in:	**Level of Impact in Adopted MND**	**Conditions Requiring Subsequent Review**			**Proposed Project Meets the Conditions for an Addendum** *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	LTS	No	No	No	**Yes**
b) Generation of excessive groundborne vibration or groundborne noise levels?	LTS/M	No	No	No	**Yes**

Would the project result in:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The proposed project is located in the City of Long Beach. The primary noise sources in the project vicinity are from the operation of vehicles on the nearby roads; however, traffic noise at the project site is minimal. Noise generated at the project site is currently associated with activated uses at the PAAL campus. This includes conversational noise, intermittent noise from the Public Address (PA) system on the campus, and traffic/parking lot noise generated at the two parking lots.

Noise is defined as unwanted sound and, when overexposed, 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, federal, state, and local governments have established criteria to protect public health and safety and to prevent the disruption of certain human activities, communication, or sleep. Noise modeling was conducted by PlaceWorks in June 2025 which is summarized herein and included as Appendix B.

Additional information on noise and vibration fundamentals are contained in Appendix B. The nearest sensitive receptors to the project site are the kidney dialysis center to the immediate south of the project site boundary. Multifamily residences are located approximately 50 feet to the west across North Palmer Court.

The noise environment in the vicinity of the project site is primarily influenced by traffic noise from Long Beach Boulevard and 16th Street and Metro Blue Line. Existing commercial (auto repair to the north and east and car wash to the south) and residential activities within the project area also contribute to the existing noise environment. Based on the City of Long Beach General Plan Noise Element Figure N-4, Future Traffic Noise Contours (2040) Overview, the project site is within the 65 dBA CNEL traffic noise contour of Long Beach Boulevard (Long Beach 2023).

Certain land uses are particularly sensitive to noise and vibration. The City of Long Beach Plan Noise Element identifies residential neighborhoods, schools, hospitals, health care facilities, senior facilities, religious facilities, libraries, offices and parks as noise sensitive. Sensitive receptors near the project site include single-family residential uses to the northwest, multi-family residential uses to the east and west, and a dialysis center to the south.

Applicable Standards

State Regulations

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and City adopt a general plan that includes a noise element prepared according to guidelines adopted by the Governor's Office of Planning and Research. According to these guidelines, the purpose of the noise element is to "limit the exposure of the community to excessive noise levels." However, as a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478), issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. As a result, though noise from existing sources is taken into account as part of the baseline, the direct effects of exterior noise from nearby noise sources relative to land use compatibility of a future project is typically no longer a required topic for impact evaluation under CEQA. Generally, no determination of significance is required with the exception of certain school projects, projects affected by airport noise, and projects that would exacerbate existing conditions (i.e., projects that would have a significant operational impact).

City of Long Beach

The City of Long Beach Municipal Code includes noise regulations (referred to generally as the Noise Ordinance). Of the regulations within the municipal code, not all are applicable to the proposed project. The following regulations would apply to the proposed project:

Construction

Title 8, Health and Safety, Chapter 8.80.202, Construction Activity-Noise Regulations, of the City's municipal code, prohibits construction activities from 7:00 pm to 7:00 am Mondays through Fridays and before 9:00 am and after 6:00 pm on Saturdays. Construction is prohibited on Sundays unless a permit has been issued.

Chapter 8.80.200, Noise Disturbances-Acts Specified (G), of the City's municipal code prohibits vibration-causing activities that create vibration above the perception threshold of an individual at or beyond the property boundary of the source.

Exterior and Interior Noise Limits

Chapter 8.80.160, Exterior Noise Limits—Correction for Character of Sound, of the City's municipal code establishes maximum exterior noise levels based on land use districts, and Chapter 8.80.170, Interior Noise Limits—Sound Levels, establishes maximum interior noise levels. As shown on the Noise District Map in the municipal code, the project site and surrounding uses are in Land Use District Two. District Two is predominantly commercial with other land use types present. Table 9, *City of Long Beach Exterior and Interior Noise Limits*, summarizes the exterior and interior noise limits for District Two.

Table 9 City of Long Beach Exterior and Interior Noise Limits: District 2

	Noise Levels in dBA L_{eq}			
Land Use District	**7:00 a.m. to 10:00 p.m.**	**10:00 p.m. to 7:00 a.m.**	**7:00 a.m. to 10:00 p.m.**	**10:00 p.m. to 7:00 a.m.**
District Two	60	55	—[1]	—[1]

Source: Long Beach Municipal Code Sections 8.80.160 and 8.80.170.

Notes: dBA L_{eq} = Energy-Average (L_{eq}) Sound Levels

Standard 1: The noise standard for that land use district for a cumulative period of more than 30 minutes in any hour;

Standard 2: The noise standard plus five decibels for a cumulative period of more than 15 minutes in any hour;

Standard 3: The noise standard plus ten decibels for a cumulative period of more than 5 minutes in any hour;

Standard 4: The noise standard plus fifteen decibels for a cumulative period of more than 1 minutes in any hour;

Standard 5: The noise standard plus twenty decibels or the maximum measured ambient, for any time period.

[1] Interior noise limits vary depending on uses within District 2.

Chapter 8.80.200, Noise Disturbances–Acts Specified, restricts the use or operation of any purpose any loudspeaker, loudspeaker system, or similar device between the hours of 10:00 pm and 7:00 am the following day, such that the sound therefrom creates a noise disturbance across a residential real property line, or at any time violates the provisions of Chapter 8.80.150 or 8.80.170, except for any noncommercial public speaking, public assembly, or other activity for which a variance has been issued by the noise control office.

Chapter 8.80.280, Exemption–Entertainment Events, states that provisions of Chapter 8.80 shall not apply to occasional outdoor or indoor gatherings, public dances, shows and sporting and entertainment events, provided said events are conducted pursuant to a permit or license or other entitlement issued by the City relative to the staging of said events.

Vibration

Title 8, Health and Safety Chapter 8.80.200(G) of the City of Long Beach's Municipal Code limits vibration impacts to nearby single-family homes to 0.001 gravity (g) in the frequency range of 0 to 30 hertz and 0.003 g in the frequency range of 30 to 100 hertz. The acceleration of gravity, which is 32.2 feet per second, can be converted into peak particle velocity (PPV) by multiplying 0.001 g by 32.2 and then converting to inch per second, which results in a threshold of 0.386 inch per second PPV.

Summary of Applied Thresholds

Consistent with State CEQA Guidelines Section 15162 and 15164, the proposed project would apply the same noise and vibration standards significance criteria identified in the Approved MND. A vibration or construction noise impact would occur if:

- Project construction activities would generate noise levels greater than 90 dBA L_{eq} at the noise sensitive residential receptors and 100 dBA at commercial receptors.[7]
- Vibration levels would exceed 0.386 inches/second (in/sec) peak particle velocity (PPV)[8] at the nearby single-family homes.

[7] As identified on page 59 of the Approved MND, the approved project's noise levels were analyzed against the Federal Transit Administration (FTA) daytime construction noise standard of 90 dBA for residential uses and 100 dBA for commercial uses. The same standard is applied to the proposed project.

[8] As identified on page 61 of the Approved MND, the approved project's vibration levels were analyzed against the conversion of the City's vibration threshold of 0.001 gravity in the frequency range of 0 to 30 hertz, which was converted to 0.386 PPV. The same standard is applied to the proposed project.

IMPACT ANALYSIS

For purposes of this analysis, noise and vibration receptor distances are defined differently based on the source mechanism. Operational noise impacts associated with the proposed multipurpose softball field are evaluated by measuring distances from the field and associated activity areas to the nearest off-site noise-sensitive land uses. Groundborne vibration impacts are evaluated by measuring distances from construction activity areas to the nearest building façades, as vibration effects are dependent on transmission through the soil to occupied structures.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.

CONSTRUCTION

Construction noise from the proposed project would include demolition, site preparation, building construction, and paving at the PAAL campus (no activities beyond those evaluated in the Approved MND are proposed for Poly HS). Such construction activities are consistent with those analyzed under the approved project. Noise generated by on-site construction equipment is based on the type of equipment used, its location relative to sensitive receptors, and the timing and duration of noise-generating activities. Each phase of construction involves different types of equipment and has distinct noise characteristics. Noise levels from construction activities are typically dominated by the loudest three pieces of equipment. The dominant equipment 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 L_{eq} 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, intervening features (i.e., buildings, vegetation, walls) 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 Noise Model (RCNM). Assuming the nearest noise sensitive receptor to the center of construction activities, construction-related noise levels would be up to 84 dBA Leq at the closest receptors (multi-family residences to the west) and up to 86 dBA L_{eq} at the closest commercial receptor. Results are summarized in Table 10, *Project-Related Construction Noise Levels dBA*, at the nearest receptors. The proposed project's construction would comply with Section 8.80.202 of the City's Municipal Code, and project construction noise levels would not exceed the FTA threshold of 90 dBA Leq for residential uses and 100 dBA L_{eq} for commercial uses. Therefore, construction-equipment noise impacts would be less than significant.

Table 10 Project-Related Construction Noise Levels

Construction Activity Phase	Noise Levels in dBA L_{eq}				
	RCNM Reference Noise Level	**Residential Receptor to Northwest**	**Residential Receptor to West**	**Commercial Receptor to South**	**Mixed-Use Receptor to East**
Distance in feet	**50**	**270**	**145**	**180**	**250**
Building and Asphalt Demolition	84	69	74	73	70
Site Prep	84	69	75	73	70
Grading	83	69	74	72	69
Distance in feet	**50**	**75**	**45**	**105**	**185**
Utility Trenching	82	78	83	76	71
Building Construction and Field Installation	79	75	80	73	68
Architectural Coating	74	70	75	67	62
Distance in feet	**50**	**80**	**30**	**25**	**150**
Paving	80	76	84	86	70
Maximum Construction Noise Level		**78**	**84**	**86**	**71**
Exceeds FTA's 90 dBA L_{eq} Residential Threshold or 100 dBA L_{eq} Commercial Threshold?		No	No	No	No

Source: FHWA RCNM software.

Notes: See Appendix B for calculations.

Distance measurements were taken using Google Earth (2025).

dBA L_{eq} = Energy-Average (L_{eq}) Sound Levels.

OPERATION

The proposed project's primary onsite operational noise sources would include softball and soccer activities and limited public announcements from proposed light pole mounted speakers due to the new multipurpose softball fields. The approved project assumes operational noise from athletic facilities, specifically from games and practices at the new outdoor aquatic center and replacement athletic field proposed under the approved project. The proposed project would include batting cages and bleachers at the softball field to accommodate up to 100 spectators. The field would operate only during the Poly HS sports period, including softball and soccer practice, which is typically seventh period from 2:09 pm to 3:35 pm, and the softball season, which is from February through June and typically consists of 13 home games. Home games are typically played on Tuesdays, Thursdays, and Fridays and start between 3:15 pm and 4:00 pm and end by 6:00 pm. Utilization of the new field for other, non-sport events may occur throughout the year, consistent with the existing field use at the Poly HS campus. In general, all sports activities (and any lighting) on the project site are scheduled to end before 8:00 pm.

PlaceWorks staff have previously collected noise measurement data at various multipurpose softball fields and sporting activities to establish reference noise levels. Noise levels for softball activities with spectators have been observed at approximately 60 dBA L_{eq} at 15 feet. The nearest noise sensitive receptor, kidney dialysis center building, to the proposed replacement multipurpose softball field is approximately 50 feet south. At this distance, noise levels would attenuate to 51 dBA L_{eq} or less. The nearest residential structure to the proposed replacement multipurpose softball field is located approximately 70 feet to the west across North Palmer Court. At this distance, noise levels would attenuate to 47 dBA L_{eq}.

The proposed facilities would include one restroom/ticket building along North Palmer Court. The building would not introduce new stationary sources such as heating, ventilation, and cooling (HVAC) equipment.

The existing PA system that operates at PAAL would be removed and replaced with two speakers on each light pole for event announcements. Speakers would have 180-degree coverage, would be directed toward the field, and would only used to make announcements during softball games. Speakers would not be used on a daily basis, less frequently than the existing PA system at the PAAL campus, and would only be used sporadically throughout the season for major events. The operation of project speakers would comply with Sections 8.80.200 and 8.80.280 of the City's municipal code.

As a result, activities on the softball and soccer field would not exceed the City's daytime exterior noise standard of 50 dBA at adjacent residential uses. Furthermore, activities on the field would result in a less than 1 dBA increase to existing ambient noise levels and would not represent a substantial increase. Therefore, impacts would be less than significant.

TRAFFIC NOISE

The proposed project would redevelop the project site, currently actively used as the PAAL campus, with a softball and multipurpose field that is intended to replace the existing softball field at the Poly HS campus that would be removed as part of the approved project. As the proposed use is an athletic field serving an existing student population and school operations, no substantial increase in vehicular trips to and from the site is anticipated beyond periodic maintenance activities during school hours or organized events. Prior to construction activities, the users (students, staff) at the PAAL campus would be relocated to existing facilities at the Poly HS campus.

Operational transportation noise typically results from vehicle movements associated with regular use of a facility. Because the proposed project would not introduce new school facilities or result in an increase in enrollment capacity, there would be no meaningful increase in daily traffic volumes as compared to existing conditions. Additionally, the types of vehicles accessing the project site would be similar in number and character to those currently serving the project site and Poly HS campus. Any occasional peak activity (e.g., school sport games) would be temporary and consistent with typical school-related athletic field use.

Therefore, the proposed project is not anticipated to result in a substantial increase in operational transportation noise, and noise levels would remain consistent with those typically associated with public school athletic facilities in an urban setting. Impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Potential vibration impacts associated with field light installation projects are usually related to the intermittent 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 of vibration on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction materials and condition. 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 11, *Proposed Project's Vibration Levels*, summarizes vibration levels for typical construction equipment at a reference distance of 25 feet. Typical construction equipment can generate vibration levels ranging up to 0.21 inches per second (in/sec) PPV at 25 feet.

Table 11 Proposed Project's Vibration Levels

Equipment	Vibration Levels (in/sec PPV)				
	Reference Levels at 25 feet	**Residential Receptor to North at 65 feet**	**Commercial Receptor to South at 15 feet**	**Mixed-Use Receptor to East at 135 feet**	**Residential Receptor to West at 30 feet**
Vibratory Roller	0.210	0.050	**0.452**	0.017	0.160
Hoe Ram	0.089	0.021	0.191	0.007	0.068
Large Bulldozer	0.089	0.021	0.191	0.007	0.068
Loaded Trucks	0.076	0.018	0.164	0.006	0.058
Jackhammer	0.035	0.008	0.075	0.003	0.027
Small Bulldozer	0.003	0.001	0.006	0.000	0.002
Exceeds 0.386 in/sec PPV Threshold?		No	**Yes**	No	No

Notes: **Bold** numbers indicate values that exceed the FTA vibration criteria.

Distances are from the nearest distance from where these equipment pieces may be used to the nearest receptor building within each land use type. See Appendix B.

Chapter 8.80.200(G) of the Long Beach Municipal Code limits vibration impacts to nearby single-family homes to 0.001 g in the frequency range of 0 to 30 hertz and 0.003 g in the frequency range of 30 to 100 hertz. The acceleration of gravity (g) can be converted into peak particle velocity (PPV) by multiplying 0.001 g by 32.2 and converting to inch per second, which results in a threshold of 0.386 inch per second PPV. As previously identified, vibrations impacts are measured from vibration source to building façade. The nearest structure to proposed construction activities, a commercial/medical use building to the south, is approximately 15 feet away from the source mechanism. At this distance, construction vibration from a vibratory roller would generate a vibration level of 0.452 in/sec PPV. It should be noted that commercial buildings are not considered vibration-sensitive receptors under CEQA because vibration impact criteria are primarily intended to address human annoyance in uses where occupants are particularly sensitive to groundborne vibration such as residences, hospitals, and schools. While the facility provides medical services, it operates as an outpatient use and does not include overnight patient care or vibration-sensitive inpatient functions. Patients are awake and monitored during treatment, and the facility does not contain vibration-sensitive equipment comparable to that found in hospitals or imaging centers. In addition, construction-related

groundborne vibration would be temporary and intermittent and would remain well below levels associated with interference with medical equipment or structural damage. Accordingly, the outpatient dialysis facility is not considered a vibration-sensitive receptor for purposes of this analysis.

The nearest vibration-sensitive structure, a multi-family residential structure, is approximately 30 feet west, and at this distance, construction vibration from a vibratory roller would generate a vibration level of 0.160 in/sec PPV. As shown in Table 11, the vibration generated from the hoe ram and large bulldozer would be below the 0.386 PPV threshold at 30 feet; however, the vibratory roller would exceed the 0.386 PPV threshold at 15 feet. As with the approved project, the proposed project would implement mitigation measure MM NOI-1 from the Adopted MND to reduce construction-related vibration impacts to less than significant 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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As with the approved project, the nearest airport to the project site, Long Beach Airport, is located approximately 3 miles to the northeast. The project site is located outside of 60 dBA CNEL noise contour for Long Beach 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. No impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.13.3 Adopted Mitigation Measures Applicable to the Proposed Project

Mitigation measure MM NOI-1 outlined in the Adopted MND shall apply. The Adopted MND mitigation measure is presented below.

> **MM NOI-1:** The District shall require that the paving contractor either operate vibratory rollers in static mode or limit the amplitude level of vibratory rollers to the lowest setting when operating within 20 feet of any offsite structure.

3.14 POPULATION AND HOUSING

3.14.1 Summary of Impacts Identified in the Approved Project

The approved project would serve the existing uses and needs of the students and staff of Poly HS and would not increase student enrollment or student capacity. Therefore, the approved project would not directly or indirectly induce population growth. No impacts to population growth would occur.

No residential uses exist on the approved project site. Therefore, development of the approved project would not result in the displacement of existing housing or people, and no impact would occur.

3.14.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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)?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Population refers to the occupants of housing projects, population indirectly associated with workers or proposed nonresidential projects, or changes in the amount and distribution of population and employment permitted by adoption or revision to a land use plan. Important areas include changes in the number, characteristics, geographical distribution, and timing of new residents directly or indirectly resulting from a project, and the degree to which project-related changes are consistent with City, regional or other adopted population growth policies. Other issues are the degree to which project-related population is already present in the area under analysis (i.e., already residing or working in the area) or whether they represent immigrants.

Housing impacts may result directly from a project which includes housing units or indirectly from revisions to the Housing Element in a General Plan or changes in housing demand associated with new nonresidential development projects.

A project would have a significant adverse impact if it would induce substantial population growth in an area, either directly by proposing new homes and businesses or indirectly through the extension of roads or other infrastructure; displace housing units, causing the construction of replacement housing somewhere else; or displace people, causing the construction of replacement housing somewhere else.

IMPACT ANALYSIS

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)?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project would be constructed within the existing PAAL campus. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus**,** associated site improvements**,** and relocation of the PAAL uses to existing facilities at the Poly HS campus. The proposed project also includes restriping of the existing surface parking lots at the project site to include ADA compliant parking spaces. No housing is proposed.

The proposed project would serve the existing uses and needs of the students and staff of Poly HS and would not increase student enrollment or student capacity. The proposed project would not create a significant number of new employment opportunities that could result in a greater demand for local housing, since the proposed project would only provide a new space for facilities and events that already occur on the Poly HS campus, and existing students and staff at the PAAL campus would be relocated to the Poly HS campus. Additionally, the proposed project would continue to utilize the existing roads, with no new roads or housing proposed. Thus, project development would not induce substantial population growth in the area, either directly or indirectly. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project would be constructed within the boundaries of the existing PAAL campus. No housing exists on the project site; therefore, implementation of the proposed project would not displace existing housing and there would be no relocation or construction of replacement housing. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.14.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to population and housing were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.15 PUBLIC SERVICES

3.15.1 Summary of Impacts Identified in the Approved Project

Land uses at the approved project site would remain the same as under current conditions; therefore, an increase in the demand for fire and police services would not occur.

The approved project consists of improvements to the Poly HS campus. During construction, some portions of the campus would not be available for school use. However, this limitation would be short-term and functioning existing uses would return after construction. Therefore, implementation of the approved project would have a less than significant impact associated with schools.

The approved project would not result in an adverse physical impact association with parks and other public facilities as the approved project would not induce population growth or create new residents. No impact would occur.

3.15.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
Police protection?	NI	No	No	No	**Yes**
Schools?	LTS	No	No	No	**Yes**
Parks?	NI	No	No	No	**Yes**
Other public facilities?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Public services include fire, police, schools, parks, and libraries. A project would impact a public service if it would result in an increased demand for that service or if the project would result in a hindrance to that service.

IMPACT ANALYSIS

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Fire protection and emergency medical services in the City of Long Beach are provided by the Long Beach Fire Department (LBFD). Services include responding to fires, public safety and medical emergencies, and natural disasters. The LBFD aims to respond to structure fire calls within 6 minutes and 20 seconds. For all emergency calls, the department's goal is to arrive on scene within 5 minutes for 90 percent of incidents. In the 2022 Fiscal Year, 85 percent of first responders arrived on scene within that time, and the City projects that number to increase to 90 percent for the 2024 Fiscal Year (Long Beach 2023).

The project site is currently developed with structures that support the PAAL program and is within the service area for the LBFD. The nearest LBFD station is Station 3, approximately 0.6 mile southwest of the project site. Demand for fire protection services is generally tied to population growth. The proposed project does not include a residential component and, as with the existing use, is intended to serve the existing Poly HS student population. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS. The proposed project would not increase the student or staff population in the District or City. Because the proposed use would remain the same as existing at the Poly HS campus, an increase in the demand for fire services resulting from the proposed project is not anticipated. Thus, no impact would occur.

Police protection?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The District maintains its own safety department to provide security for the schools within its jurisdiction. The project site is developed with structures that support the PAAL program and

currently receives the District's safety services. The District's School Safety and Emergency Preparedness Department would continue to provide security for the proposed project. Additionally, the Long Beach Police Department would continue to provide secondary law enforcement services to the project site, similar to existing conditions, to supplement the District's School Safety and Emergency Preparedness Department as needed.

The Long Beach Police Department provides law enforcement protection to the City, including the project site. LBPD consists of five bureaus: the Investigation Bureau, the Support Bureau, the Patrol Bureau, the Administration Bureau, and the Financial Bureau. The LBPD Patrol Bureau is organized into five geographic divisions; the project site is in the West Division (Long Beach 2025a). The Long Beach Police–West Division station is approximately 1.5 miles west of the project site.

As with existing conditions, the perimeter of the project site would be fenced, and access to the campus during construction would be limited to employees only. Any increase in law enforcement demands would be temporary and would not require construction of new or expanded law enforcement facilities. The demand for law enforcement protection services generally corresponds to population. Since the proposed project would not increase the area population, project implementation would not increase the demand for law enforcement services or generate a need for additional law enforcement facilities. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus**,** associated site improvements**,** and relocation of PAAL uses to existing facilities at Poly HS. The proposed project would not increase the area population or demand and would not result in new adverse impacts on existing law enforcement services. Therefore, impacts would be less than significant.

Schools?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As previously discussed, the project site is an annex site of the Poly HS campus and serves the existing student population at Poly HS. The proposed project would redevelop the PAAL campus with a replacement multipurpose softball field and related project components for Poly HS and relocate uses at the PAAL campus to existing facilities at the Poly HS campus. As with existing conditions, the proposed project would continue to serve the student population at Poly HS; the proposed project would not result in an increase in student or staff population at Poly HS. The existing student and staff population under the PAAL program would be transferred to the Poly HS campus. Generally, the demand for school services is created by new housing development or activities that generate additional population. The proposed project does not include a residential component that would generate a population. Development of the project would not result in the need for construction associated with an expansion of existing or development of new schools such that environmental impacts would result. No impact would occur.

Parks?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Increases in demand for park facilities generally result from population increases, which in turn generally result from residential development and development of new job-generating land uses. The nearest park to the project site is Peace Park approximately 0.27 miles southeast. Additional parks near the project site include the 14th Street Park, 0.33 mile southwest, and Seaside Park, 0.38 mile southwest. The proposed project does not include a residential component. The proposed replacement multipurpose softball field would be available for use by the existing students and staff of Poly HS only and visiting teams. Therefore, the proposed project would not increase the use of existing parks or recreational facilities or create the need for new parks or recreational facilities in the City. No impact would occur.

Other public facilities?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Physical impacts to public services are usually associated with population in-migration and growth, which increases the demand for public services and facilities. The proposed project does not include any residential and would not contribute to population growth. As such, the project would not result in impacts associated with the provision of other new or physically altered public facilities (e.g., libraries, hospitals, childcare, teen, senior centers). The project would not induce population growth. No impacts to other public facilities would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.15.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to public services were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.16 RECREATION

3.16.1 Summary of Impacts Identified in the Approved Project

The approved project would not directly or indirectly increase population growth. Therefore, the approved project would not result in an impact associated with the deterioration of recreational facilities. Poly HS provides students with on-campus recreational facilities, and the

approved project would repair and upgrade school facilities for the existing student population. Therefore, the approved project would not impact any facility beyond capacity by generating additional uses, and no impacts related to the construction or expansion of recreational facilities would occur.

3.16.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Would the 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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Recreational facilities include active and passive facilities. Active recreational facilities include parks, tennis and basketball courts, pools, golf courses, and various other facilities. Passive recreational facilities include plazas and other public places.

A project would result in a significant impact on recreational facilities if it would increase the use of existing parks and facilities such that substantial physical deterioration of the facility would occur or be accelerated or if the project included recreational facilities or required construction that might have an adverse physical effect on the environment.

IMPACT ANALYSIS

a) Would the 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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The demand for parks is generally determined by the population of the parks' service areas. Generally, the demand for parks is created by the development of new housing and/or actions that generate additional population. The proposed project does not include a residential component that would generate a population.

The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus**,** associated site improvements**,** and relocation of PAAL uses to existing facilities at Poly HS. As with the existing conditions, the proposed project would serve the existing Poly HS student population. The proposed project would not lead to an increased demand for neighborhood or regional parks to result in their substantial physical deterioration. Therefore, no impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project would include the demolition of existing structures on-site and the addition of a replacement multipurpose softball field, bleachers, new lighting, modular building,

and other project components that would serve the existing Poly HS student population. The proposed project would replace the softball field at the Poly HS campus, thereby replacing and improving the recreational facilities available to the Poly HS students. No construction or expansion of off-site recreational facilities are proposed. During construction, the existing PAAL program and students and staff would be relocated to the Poly HS campus. Impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.16.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to recreation were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.17 TRANSPORTATION

3.17.1 Summary of Impacts Identified in the Approved Project

The approved project would not increase student or staff capacity on the approved project site; therefore, no net new trips are anticipated to be generated by the approved project. Construction trips were calculated using the City of Long Beach Transportation Impact Assessment (TIA) Guidelines; the approved project is expected to generate 244 daily trips during peak construction. Development and implementation of a traffic management plan would ensure that construction impacts to transportation would be less than significant.

The Adopted MND determined that VMT impacts would be less than significant as the approved project would not increase student or staff capacity, and no net new trips are anticipated with the approved project.

The approved project does not include any changes to the design features of the existing transportation structures. No changes to roadways are proposed. Therefore, the approved project would result in no impacts related to design features or incompatible uses.

The approved project does not include any modifications to off-site roadways or emergency access routes. With implementation of a traffic management plan, construction activities would not impede emergency access. Therefore, no impacts to emergency access would occur.

3.17.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	LTS	No	No	No	**Yes**
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	NI	No	No	No	**Yes**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	NI	No	No	No	**Yes**
d) Result in inadequate emergency access?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The existing roadway network surrounding the proposed project includes East 16th Street directly north of the project site, North Palmer Court directly west of the project site, and Long Beach Boulevard directly east of the project site.

East 16th Street: East 16th Street is a minor arterial/collector roadway that runs east-west with one lane in each direction, through residential neighborhoods, connecting local street to larger arterials. On-street parallel parking is provided on both sides of the street. Sidewalks are on both sides, with crosswalks at intersections. East 16th Street provides access to the project site via North Palmer Court.

North Palmer Court: North Palmer Court is a local residential street that runs north-south with one lane in each direction. It functions as a collector, gathering local traffic and feeding into neighborhood arterials such as East 16th Street. North Palmer Court provides access to the project site.

Long Beach Boulevard: Long Beach Boulevard is a principal arterial roadway that runs north-south with two lanes in each direction. This roadway is also served by Metro and Long Beach Transit rail lines. Sidewalks are provided on both sides of the street. Pedestrian access to the project site is provided via the sidewalk on the western side of Long Beach Boulevard. No vehicle access is provided to the project site from Long Beach Boulevard.

As previously discussed, East 16th Street and Long Beach Boulevard have sidewalks on both sides of the street. Portions of the rights-of-way for these roadways provide a landscape buffer between the sidewalk and the street.

There are no dedicated bicycle facilities in the immediate vicinity of the project site. The nearest bicycle lane to the project site is along Pacific Coast Highway and Pacific Avenue (Long Beach 2013). These roadways provide a Class III Bike Route.[9]

The project site is located in a transit-oriented area. The nearest bus stop is the Long Beach Boulevard & East 16th Street northeast stop for the Long Beach Transit 51 Bus Route on Long Beach Boulevard, adjacent to the project site on the northeast corner. The project site is located between two light rail stations (Metro A Blue Line): the Pacific Coast Highway Station, approximately 0.17 mile north, and the Anaheim Street Station, approximately 0.3 mile south.

IMPACT ANALYSIS

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164.

[9] A Class III Bike Route is a shared roadway where bicyclists and motor vehicles travel together in the same lane.

CONSTRUCTION

The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at Poly HS. Like the approved project, the proposed project would not change any existing public roadways, bicycle lanes, or pedestrian paths. No construction activities other than what were previously analyzed in the Approved MND for the approved project would occur. The proposed project activities would remain within the boundaries of the project site. Construction of the proposed project would generate small numbers of worker commute trips and heavy truck trips. However, the traffic generated during the construction phase would be minimal and would cease upon completion of construction. Construction staging would be on-site. Construction traffic would not displace bus stops or impact public transit bus services on the surrounding roadways. The construction contractor would coordinate with the City during construction to develop a traffic management plan for any temporary lane closures and would limit construction in these locations to outside peak travel hours. The traffic management plan would contain project-specific measures for noticing, signage, policy guidance, and the limitation of lane closures to off-peak hours. Implementation of the traffic management plan would ensure that construction impacts would be less than significant. In addition, as part of District Construction BMPs, the District would require its contractors to submit a worksite traffic control plan to the City of Long Beach for review prior to construction. The plan would show the location of any haul routes, construction hours, protective devices, warning signs, and access to abutting properties.

OPERATION

As previously discussed, as with the existing use, the proposed project would serve the existing student and staff populations at Poly HS and PAAL. The replacement multipurpose softball field would be relocated from the Poly HS campus to the PAAL campus, and the existing PAAL program students and staff would be relocated to the Poly HS campus. These relocations of existing uses are within 2 blocks (0.3 mile) of each other and share the same access, roadway networks, and transit connection access analyzed in the Adopted MND. The proposed project would not include a use that would result in an increase in the student or staff population at Poly HS or the project site. The proposed project would not result in the addition of new events that were not already occurring on the Poly HS campus. Therefore, the proposed project would not result in a significant or permanent increase in traffic after completion of the proposed project. Moreover, operation of the proposed project would not change the operation or use of bicycle lanes or any sidewalks or school crosswalks at roadways or intersections. Project operation would not block or remove or otherwise interfere with the safety or performance of the circulation system and would not interfere with bus services operating near the project site.

The proposed project would not conflict with the City's transportation plans, policies, and programs, or the City's general plan. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. State CEQA Guidelines Section 15064.3(b)(1) describes specific considerations for evaluating a project's transportation impacts using VMT for land use projects. The City's Traffic Impact Analysis (TIA) Guidelines provides general instructions for analyzing the potential transportation impacts of proposed development projects and was prepared to reflect the requirements of Senate Bill 743. According to the City of Long Beach General Plan, the project site is designated Transit-Oriented Development Moderate Density (TOD-M). Therefore, per the City's TIA Guidelines, the proposed project is presumed to create a less than significant impact pursuant to CEQA Guidelines Section 15064.3(b) (Long Beach 2020). Additionally, like the approved project, the proposed project would not change the existing student or staff populations at Poly HS, and the replacement multipurpose softball field uses to be relocated on the project site are existing uses at Poly HS; therefore, no new net trips are anticipated to be generated by the proposed project, and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project includes restriping the existing parking lots to include striping and signage for ADA-accessible parking spaces and the removal of the existing drop-off lane and staff parking spaces on the northwest side of campus. The proposed project would not add or alter any on- or off-site access or circulation features that would create or increase any design hazards or incompatible uses. Access to the project site would continue to be provided via East 16th Street and North Palmer Court. No access would change during project construction or operation. Like the approved project, there would be no roadway improvements in the public right-of-way, and all improvements within the project site would be consistent with the criteria of the DSA.

The project site would continue to be used for school-related uses for Poly HS, and no new incompatible uses would be introduced. As with existing conditions, traffic on or around the project site would increase during events and practices. The proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. The existing street network accommodates existing vehicle, pedestrian, and bicycle activity. Therefore, a less than significant impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

d) Result in inadequate emergency access?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project would occur entirely within the project site and does not include changes to off-site roadways or emergency access routes. Access and emergency ingress and egress to the project site would continue to be provided by East 16th Street and North Palmer Court. As part of District Construction BMPs, the District would require its contractors to submit a worksite traffic control plan to the City for review prior to construction. The plan will show the location of any haul routes, construction hours, protective devices, warning signs, and access to abutting properties. There are no proposed road closures or detours that would interrupt the use of the roads during an emergency.

After construction, all lanes in the vicinity of the proposed project would remain open for emergency use. The proposed project would not result in inadequate emergency access. Therefore, a less than significant impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.17.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to transportation were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.18 TRIBAL CULTURAL RESOURCES

3.18.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that the approved project would have less than significant impacts to tribal cultural resources with mitigation incorporated. For the approved project, the District sent out Assembly Bill (AB) 52 letters to the Torres Martinez Desert Cahuilla Indians, the Gabrieleno/Tongva San Gabriel Band of Mission Indians, and the Gabrieleno Band of Mission Indians-Kizh Nation. The Gabrieleno Band of Mission Indians-Kizh Nation provided mitigation measures to be incorporated into the approved project.

The Adopted MND determined that potential subsurface tribal cultural resources may be present near or within the approved project site that may be discovered during excavation and grading. Implementation of mitigation measures MM-TCR-1 through MM-TCR-3 would reduce impacts to tribal cultural resources to less than significant levels.

3.18.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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:		No	No	No	**Yes**
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	LTS/M	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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.	LTS/M	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

Public Resources Code Section 21080.3.1(b) requires the lead agency to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the project prior to the release of negative declaration, mitigated negative declaration, or environmental impact report for a project. This requirement applies to all projects on or after

July 1, 2015. The proposed project does not constitute a new project requiring circulation of a new Notice of Intent under CEQA; therefore, AB 52 consultation was not initiated. The District previously completed AB 52 consultation for the approved project.

IMPACT ANALYSIS

a) Would the 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), or

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site does not contain a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, National Register of Historic Places, California State Historical Landmarks or Points of Historical Interest, or in a local register of historical resources (NPS 2025a, 2025b; OHP 2025a, 2025b). The project site does not contain tribal cultural resources that meet any of the historic resource criteria or meet the definition of a historic resource pursuant to CEQA. The project would not impact tribal cultural resources listed on any of the registers of historic resources. Due to the developed nature of the project site and surrounding area, the proposed project would not impact a tribal cultural resource listed on the California Register of Historical Resources, National Register of Historic Places, California State Historical Landmarks or Points of Historical Interest, or in a local register of historical resources. No impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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.

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Public Resources Code Section 21080.3.1(b) requires the lead agency to consult

with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the project prior to the release of negative declaration, mitigated negative declaration, or environmental impact report for a project. This requirement applies to all projects on or after July 1, 2015. Because this is an Addendum to the Adopted MND, the notification and consultation for tribal cultural resources (TCR) requirements pursuant to Public Resources Code, Section 21080.3.1, do not apply to the proposed project, and no tribal consultation was required or performed.

The Adopted MND determined that potential subsurface tribal cultural resources may be present near or within the approved project site that may be discovered during excavation and grading. Due to the project site's proximity to the Poly HS campus, approximately 0.3 mile or 2 blocks, the proposed project's construction activities have the potential to encounter subsurface tribal cultural resources. As with the approved project, the proposed project would implement mitigation measures MM TCR-1 through MM TCR-3 to reduce impacts to less than significant levels. As required by the mitigation, should archaeological resources (sites, features, or artifacts) be exposed during construction and demolition activities for the proposed project, all construction work within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Implementation of mitigation measures MM TCR-1 through MM TCR-3 would reduce the proposed project's impacts to tribal cultural resources.

Additionally, the proposed project would be required to comply with the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves and Repatriation Act, and the California Health and Safety Code, which generally require that any ground disturbance must cease in the event of accidental discovery of resources or disturbance to human remains during construction activities. In the event of accidental discovery of human remains, California Health and Safety Code Section 7050.5 and State CEQA Guidelines Section 15064.5 require that there be no further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent human remains. These regulations require the County Coroner to be contacted and to make a determination as to whether an investigation into the cause of death is required and whether the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact, by telephone within 24 hours, the Native American Heritage Commission. The NAHC shall identify the person(s) it believes to be the most likely descendent, and the most likely descendent may make recommendations regarding proper treatment and burial, which would be implemented in accordance with Section 15064.5I of the State CEQA Guidelines.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Applicable mitigation measures outlined in the Adopted MND would be incorporated to reduce impacts. Consequently, the proposed

project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.18.3 Adopted Mitigation Measures Applicable to the Proposed Project

Mitigation measures MM TCR-1, MM TCR-2, and MM TCR-3 in the Adopted MND shall apply.

MM TCR-1: Retain a Native American Monitor/Consultant.

a) The Project Applicant shall be required to 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 early 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.

MM TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funery/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.

MM TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

a) Native American human remains are defined in PCR 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funery 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 discovered human remains/burial goods shall be kept confidential to prevent further disturbance.

3.19 Utilities and Service Systems

3.19.1 Summary of Impacts Identified in the Approved Project

The Adopted MND determined that implementation of the approved project would not directly result in an increase in student or staff population, thus, no new or expanded water, wastewater

treatment or storm water drainage, electric power, natural gas, or telecommunications facilities are required. Utility usage on the approved project site would be similar to existing conditions.

The approved project involved the construction of an aquatic facility, including a new swimming pool which would require more water use on-site. However, water usage would be similar to existing water uses at other school campuses with aquatic facilities. Implementation of the approved project would not directly result in an increase in student or staff population. In addition, all fixtures, faucets, shower heads, and toilets would meet federal and California State Requirements including the California Green Building Standards Code. Thus, overall, increased water use on-site would be a nominal increase compared to the overall water consumption in the surrounding urban area. The approved project is considered to have sufficient water supplies available and impacts would be less than significant.

New buildings proposed under the approved project would replace existing facilities with similar uses and would be designed to improve water efficiency. The approved project would continue to serve existing students of Poly HS and would not result in a net increase in the generation of wastewater during project operation. Therefore, impacts to wastewater generation would be less than significant.

The Adopted MND identified the Sanitation Districts of Los Angeles County (LACSD) and private waste management collectors as the managers of solid waste in Los Angeles County. The approved would not directly result in an increase in student or staff population and would not result in an operational increase in solid waste generation. However, construction of the approved project would result in the generation of solid waste such as lumber, concrete, packaging material, plastics, and vegetation. Contractors are required to recycle or salvage nonhazardous waste materials generated during demolition and construction, thus minimizing disposal in landfills. Construction activities will be short-term and intermittent, and compliance with BMPS and existing State solid waste reduction statutes would result in a less than significant impact associated with sufficient landfill capacity. Additionally, impacts to the provision of solid waste services and solid waste reduction goals would be less than significant.

During construction and operation of the approved project, the District would comply with all City, county, and sate solid waste diversion, reduction and recycling mandates. Thus, impacts associated with waste regulations would be less than significant.

3.19.2 Impacts Associated with the Proposed Project

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	LTS	No	No	No	**Yes**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	NI	No	No	No	**Yes**

Would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
c) Result in a determination by the wastewater 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?	NI	No	No	No	**Yes**
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?	LTS	No	No	No	**Yes**
e) Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?[1]	LTS	No	No	No	**Yes**
f) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	LTS	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

1. The checklist question shown is not included in Appendix G of the State CEQA Guidelines but reflects the checklist format used in the Adopted MND. Utilities and service systems are evaluated using the applicable CEQA standards of significance.

ENVIRONMENTAL SETTING

Utilities and service systems include potable water and wastewater treatment. The quantity of water consumed and wastewater generated by a project is determined by several factors, including the size, type, and characteristics of the project. The need for construction of new or replacement water and wastewater treatment facilities (e.g., reservoirs, storage tanks, water mains, filtration plants, pumps, wells, and other connections or distribution facilities) would depend on the existing capacity and anticipated demand for the project area.

IMPACT ANALYSIS

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at the Poly HS campus. Like the approved project, implementation of the proposed project would not directly result in an increase in student or staff population at Poly HS; therefore, after construction, the generation of wastewater, water usage, and other electricity use would not be substantially changed from existing conditions. Moreover, the proposed project would modify the existing use of the project site from a full-time school use to an intermittent school use. The demand for utilities and service systems at the project site would decrease compared to existing conditions.

The proposed project would be serviced by and connected to existing utility infrastructure. The proposed connection would be designed in accordance with City of Long Beach Utilities Department (LBUD) standards and guidelines. The proposed project would result in an increase in pervious surfaces compared to existing conditions, with the construction of the multipurpose field consisting of natural turf and natural red clay track. Increases in pervious surfaces would allow more stormwater to percolate into the ground compared to existing conditions. Stormwater that does not percolate into the ground would be directed to existing storm drains on campus and into East 16th Street's and Long Beach Boulevard's existing curb and gutter. The proposed project would not significantly increase the stormwater volume, rate, or pattern

beyond connecting to the existing stormwater system. The proposed project would not use natural gas. Southern California Edison (SCE) provides electricity to the project site under existing conditions; the proposed project would connect to the existing electrical infrastructure. Proposed project electricity usage is not estimated to exceed available capacity. The proposed project would use LED luminaires that are energy efficient and last longer than metal halide or high-pressure sodium lights. Furthermore, development of the new concessions and restrooms buildings and other structures would be required to comply with California Building Energy Efficiency Standards (24 CCR Part 6).

The proposed project would not result in or require the relocation or construction of new or expanded water or wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities. Therefore, the proposed project would result in less than significant impacts.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The proposed project does not include the addition of any new aquatic facilities or facilities that would generate excess water usage. The proposed replacement multipurpose softball field would be relocated from the Poly HS campus to the PAAL campus, and the existing PAAL students and staff would be relocated to the Poly HS campus. These relocations of existing uses are within 2 blocks (0.3 mile) of each other and are both existing users of water. Use of the concessions and restroom building and softball field would result in water use during events and games. However, these uses already occur at the Poly HS campus. The proposed project would not result in a net new facility that would generate a new potable water demand. Overall, potable water usage as a result of the proposed project would be similar to existing conditions. The proposed project would use nonpotable water for irrigation of the proposed natural turf.

Additionally, the use of the project site for events and sports, as well as regular irrigation, would replace events and water use currently occurring on the Poly HS campus. Therefore, the proposed project's water demand would be similar to existing conditions because the events at the project site are existing events that already occur on campus, and an increase in water demand would only occur during events/games, which are intermittent. Furthermore, like the approved project, development of the proposed project would be required to comply with the provisions of CALGreen Division 5.3, Water Efficiency and Conservation, including Sections 5.303, Indoor Water Use, and 5.304, Outdoor Water Use. Thus, under proposed project conditions there are adequate water supplies to meet the water demands of the proposed

project, other schools in the District, and the City during normal, dry, and multiple dry years. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

c) Result in a determination by the wastewater 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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Wastewater generated at the project site is currently conveyed to the Long Beach Water Reclamation Plant (LBWRP). The LBWRP treats approximately 18 million gallons of wastewater per day (LBUD 2025b). A new concessions and restroom building would be constructed within the project site that would generate wastewater and entail the relocation of the existing on-site wastewater lines and new connections to the existing sewer infrastructure. Due to the proposed project's intermittent use, the proposed project's wastewater generation would be decreased compared to existing conditions for three reasons: first, the proposed project would not increase the project site's capacity beyond the current population; second, the events at the project site are existing events that already take place at the Poly HS campus; and third, the wastewater generation would only occur during events/games, which are intermittent. The proposed project would result in the transfer of students from the PAAL campus to the Poly HS campus. Because the project site is an annex site to the Poly HS campus, the students enlisted in the PAAL program are included in the Poly HS student population. The proposed project would not result in a net new increase in wastewater generated at Poly HS, and the Adopted MND determined that the approved project would result in less than significant impacts to wastewater. The proposed project's wastewater generation would be within the LBWRP's capacity. The proposed project would not require construction of new or expanded wastewater treatment facilities. Impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed

project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at the Poly HS campus. Like the approved project, during construction, the proposed project would generate demolition debris. 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.

The proposed project would result in the transfer of students from the PAAL campus to the Poly HS campus. Because the project site is an annex site to the Poly HS campus, the students enlisted in the PAAL program are included in the Poly HS student population. The proposed project would not result in a net new increase in solid waste generation. The proposed project would not increase the students at Poly HS; however, the proposed project would increase the overall number of spectators on-site intermittently because it would convert the project site into athletic facilities for events for Poly HS. However, these are existing uses that already occur at Poly HS. The solid waste generated by the proposed project's operational activities would be similar to the amount of solid waste generated by the current operational characteristics of the project site and the Poly HS campus. Solid waste generation would remain minimal because sporting and other events would occur infrequently and seasonally within the school year. As of February 2024, solid waste is delivered to local transfer station facilities and then transported to various landfills in Los Angeles and Orange Counties (Long Beach 2025). Because the proposed project would not introduce net new events or uses and would not result in an increase in student population at Poly HS or PAAL, waste generation would be similar as existing conditions and within the capacity of the landfills. The proposed project would comply with the required regulation pertaining to construction and demolition waste and would not adversely impact landfill capacity or impair attainment of solid waste reduction goals. Therefore, impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

e) Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As described above, the solid waste generated by the proposed project's operational activities would be similar to the amount of solid waste generated by the current operational characteristics of the project site and the Poly HS campus. Solid waste generation would remain minimal because sporting and other events would occur infrequently and seasonally within the school year. Similar to the approved project, the proposed project would comply with the

required regulation pertaining to construction and demolition waste and would not adversely impact landfill capacity or impair attainment of solid waste reduction goals. Therefore, impacts would be less than significant associated with solid waste reduction goals.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

f) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. Like the approved project, the proposed project is required to comply with federal, State, and local statutes and regulations related to solid waste and would continue this practice. CALGreen Section 5.408.1.1 requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction and operation be recycled and/or salvaged for reuse. Project development would not conflict with laws governing solid waste disposal, and impacts would be less than significant.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.19.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to utilities and service systems were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

3.20 Wildfire

3.20.1 Summary of Impacts Identified in the Approved Project

The Adopted MND identified the approved project site as not located within a Very High Fire Hazard Severity Zone (VHFHSZ). The approved project site is in an urbanized area that is not considered at high risk for wildfire. The approved project site would continue to operate as an existing school with implementation of the approved project. Thus, no impacts to an adopted emergency response plan would occur.

The approved project site is mostly flat and the approved project does not include the installation or maintenance of infrastructure, such as roads, fuel breaks, emergency water sources, power lines or other utilities, that may exacerbate fire risk. Therefore, the Adopted MND determined that the approved project would not exacerbate fire risk and no impact would occur.

The Adopted MND determined that the approved project site is not at risk of post-fire-induced landslides, and no impact would occur in regard to post-fire slope instability.

3.20.2 Impacts Associated with the Proposed Project

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Level of Impact in Adopted MND**	**Conditions Requiring Subsequent Review**			**Proposed Project Meets the Conditions for an Addendum** *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Level of Impact in Adopted MND	Conditions Requiring Subsequent Review			Proposed Project Meets the Conditions for an Addendum *CEQA Guidelines Section 15164*
		Change in Project or Circumstances Involving New or More Severe Significant Effects *CEQA Guidelines Section 15162(a)(1–2)*	**New Information Showing New or More Severe Significant Effects** *CEQA Guidelines Section 15162(a)(3)(A–B)*	**New Mitigation or Alternative to Reduce Significant Effect Is Declined** *CEQA Guidelines Section 15162(a)(3)(C–D)*	
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?	NI	No	No	No	**Yes**
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?	NI	No	No	No	**Yes**

Key: NI = no impact; LTS = less than significant; LTS/M = less than significant with mitigation.

ENVIRONMENTAL SETTING

The project site is not within or in proximity to an area classified as a Very High Fire Hazard Severity Zone (FHSZ) in a local responsibility area and is not in a state responsibility area (CAL FIRE 2024). The project site is in an urban, built-out area of the city.

IMPACT ANALYSIS

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, associated site improvements, and relocation of PAAL uses to existing facilities at the Poly HS campus. Similar to the approved project site, the project site is in a local responsibility area and in an urban, built-out area of the city. The project site is not in a state responsibility area and is not in an area classified as a Very High FHSZ. The nearest Very High FHSZ is approximately 7.5 miles west of the project site (CAL FIRE 2024). Based on the U.S. Forest Service Wildland Urban Interface (WUI) online map, the project site is not within the WUI (USFS 2020). Operation of the proposed project would continue to serve the existing Poly HS student population. Based on the foregoing, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and no impacts would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. As previously discussed, the project site is not in an SRA and is not in proximity to land classified as a Very High FHSZ. Additionally, the project site and surrounding area are flat and in an urbanized area. The project site and surrounding area are currently developed, and therefore lack the vegetation necessary for the uncontrolled spread of a wildfire. Therefore, the proposed project would not affect slope or prevailing winds that could exacerbate wildfire risk. No impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is in an urban area and is served by existing utility infrastructure, including water, wastewater, and power. Development of the proposed project would require the relocation of utility connections and trenching to the existing utilities that serve the project site. Like the approved project, the proposed project does not include the installation or maintenance of infrastructure that could exacerbate fire risk of temporary or ongoing impacts to the environment. No impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

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?

Project Meets the Conditions for an Addendum Pursuant to CEQA Guidelines Section 15164. The project site is in an urban, built-out area of the City and is flat; the surrounding area is also flat. Additionally, according to the FEMA flood zone map, the project site is in Zone X, an area of minimal flood hazard (FEMA 2024). Similar to the Poly HS campus, the project site and surrounding area are flat and would have low potential of post-fire slope instability. No impact would occur.

The proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND. Consequently, the proposed project would not trigger the need for preparation of a subsequent or supplemental MND under the criteria in Sections 15162(a) and 15163(a) of the State CEQA Guidelines.

3.20.3 Adopted Mitigation Measures Applicable to the Proposed Project

No mitigation measures related to wildfire were outlined in Adopted MND, and no new mitigation measures would be required for the proposed project.

This page left intentionally blank.

4. FINDINGS

As previously discussed, under State CEQA Guidelines Section 15164, an addendum to an EIR or MND may be prepared if only minor technical changes or additions are necessary or none of the conditions described in State CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR or MND have occurred.

The following restates the standards set forth in State CEQA Guidelines Section 15162 as they relate to the proposed project.

4.1 DISCUSSION

1. **No substantial changes are proposed in the project which would require major revisions of the previous negative declaration due to the involvement of new significant environmental effect or a substantial increase in the severity of previously identified significant effect.**

   The approved project is intended to repair and upgrade school facilities for the existing student population and included the reconstruction of the existing multipurpose softball field. The proposed project includes the reconstruction of the Poly HS multipurpose softball field at the PAAL campus, site improvements, and relocation of PAAL uses to existing facilities at the Poly HS campus, which are necessary to implement the approved project. The proposed project consists of the demolition of all existing structures, landscaping, and pavement at the project site associated with the PAAL campus, and the redevelopment of the PAAL campus with a softball and multipurpose field to serve Poly HS. The proposed project would include development of a replacement multipurpose softball field with batting cages, bullpens, dugouts, bleachers, lighting poles, speakers, concession and restroom facilities, and a new scoreboard. The proposed project would also include asphalt striping improvements to both parking lots immediately west of the PAAL campus to include ADA compliant parking spaces. The proposed project does not include a change in land use or not previously analyzed in the Adopted MND.

   The proposed project would occur on a site that was not within the boundaries of the area analyzed in the Adopted MND. However, CEQA allows for lead agencies to prepare an addendum for project modifications occurring outside the originally analyzed site, provided the changes do not result in new significant environmental impacts or substantially more severe impacts than those previously disclosed. Additionally, the type of construction activities proposed are consistent with those assumed in the Adopted MND.

The PAAL campus is an annex site to Poly HS, and the proposed project is intended to serve the same purpose as the existing Poly HS campus softball field and serve the existing student population. The proposed project does not include substantial changes compared to the Approved Project; implementation of the proposed project would not require revisions to the Adopted MND. The analysis provided in Section 3, *Environmental Analysis*, illustrates that the proposed project would not result in any new or more severe significant impacts than those identified in the Adopted MND.

2. **No substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.**

   Substantial changes have not occurred with respect to the circumstances under which the Approved Project was undertaken that would require major revisions to the Adopted MND. The Adopted MND evaluated improvements and new development proposed at the Poly HS campus, to which the project site is an annex about 0.3 mile or 2 blocks away. To date, construction of the proposed new classrooms under the approved project has begun at the location of the existing multipurpose softball field at Poly HS, which triggers the need for new athletic facilities to serve Poly HS. Implementation of the other components of the approved project are ongoing. The proposed project is intended to help implement the proposed project as athletic facilities at Poly HS are currently unusable.

   Although the proposed project would occur on a site outside the boundaries evaluated in the Adopted MND, CEQA does not require preparation of a new or subsequent MND solely because the project footprint has changed. Under CEQA Guidelines Section15162 and Section15164, an addendum is appropriate, provided the proposed changes do not result in new significant environmental impacts or substantially more severe impacts than those previously disclosed. Therefore, no proposed changes or revisions to the Adopted MND are required.

3. **No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:**

   A. **The project will have one or more significant effects not discussed in the previous EIR or negative declaration**

      The demolition and construction components of the proposed project are consistent with the types of construction activities identified for the approved project analyzed in the Adopted MND. Additionally, the proposed project would not affect the operational conditions analyzed in the Adopted MND.

Although the proposed project would occur on a site that was not within the boundaries of the area analyzed in the Adopted MND, CEQA allows for lead agencies to prepare an addendum for project modifications occurring outside the originally analyzed site, provided the changes do not result in new significant environmental impacts or substantially more severe impacts than those previously disclosed.

Although the proposed project includes new construction components, the construction activities associated with these new components would not include new construction equipment, intensity, or methods that would substantially increase significant impacts identified in the Adopted MND.

B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

Based on the analysis above, the new components would not result in more severe impacts than those identified in the Adopted MND. All existing programming (sports field and PAAL users) would continue to be accommodated with the proposed project, and operational characteristics of the Approved Project would remain unchanged from those evaluated in the Adopted MND.

C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

Mitigation measures or alternatives previously found not to be feasible at the time the Adopted MND was prepared have not been identified as feasible. The proposed project would incorporate all mitigation measures from the Adopted MND. No new mitigation measures are required.

D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

No new mitigation measures or alternatives were identified. The existing applicable mitigation measures from the Adopted MND would reduce impacts to the extent feasible. While mitigation measure NOI-1 includes one minor modification that specifically relates to conditions at the project site, the revision is not considerably different from the mitigation measure in the Adopted MND.

4.2 CONCLUSION

As indicated in this Addendum, the impacts of the proposed project have already been adequately identified and addressed in the Adopted MND, and no substantial changes have occurred with respect to the circumstances under which the proposed project is undertaken that would require major revisions to the Adopted MND. Analysis of the proposed project, even though it is on a project site that is not contiguous with the approved project site, shows that there are no new significant environmental effects and no substantial increase in the severity of previously identified significant effects.

Impacts beyond those identified in the Adopted MND would not be expected as a result of the proposed project, which would still be subject to all applicable mitigation measures from the Adopted MND. The proposed project would not result in any new information of substantial importance that would have new, more severe impacts, or new mitigation measures from what was identified in the Adopted MND. Previously adopted mitigation measures identified in the Adopted MND MMRP adopted by the Long Beach Unified School District Board of Education would continue to be applicable to the proposed project.

Based on the record as a whole, there is no substantial evidence that the proposed project would result in significant environmental impacts not previously studied in the Adopted MND, and accordingly, the proposed project changes would not result in any conditions identified in State CEQA Guidelines, Section 15162. Thus, a subsequent MND is not required for the changes to the proposed project, and the District adopts this Addendum to the Polytechnic High School Transformation Project MND in accordance with State CEQA Guidelines Section 15164.

5. LIST OF PREPARERS

LONG BEACH UNIFIED SCHOOL DISTRICT

Dana Grudem, Senior Program Manager

Gricelda Perez, Planning Project Manager

Talitha Crain, Environmental Project Manager

Jonathan Gonzalez Alcantara, Facilities Project Manager- Planning

Vanessa Ramirez, Assistant Project Manager

PLACEWORKS

Addie Farrell, Principal

Chris Shields, Senior Associate

Christhi Mrosla, Associate

Emily Parks, Associate

Natalie Phan, Planner

5. LIST OF PREPARERS

This page is intentionally left blank.

6. REFERENCES

Bay Area Air District. 2023, May. California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

CalEPA (California Environmental Protection Agency). 2025, June 2 (accessed). CalEPA. https://siteportal.calepa.ca.gov/nsite/map/help.

CAL FIRE. (California Department of Forestry and Fire Protection). 2024, April 1. Fire Hazard Severity Zone Viewer. https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/.

CalGEM (California Geologic Energy Management Division). 2025, May 23 (accessed). Well Finder. https://maps.conservation.ca.gov/doggr/wellfinder/.

CalRecycle (California Department of Resources Recovery and Recycling). 2025a, June 2 (accessed). SWIS Facility/Site Activity Search. https://www2.calrecycle.ca.gov/SolidWaste/Activity.

Caltrans (California Department of Transportation). 2020, January. Liquefaction-Induced Lateral Spreading—Caltrans Geotechnical Manual. https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/geotechnical-services/202001-gm-lateralspreading-a11y.pdf?utm.

Caltrans. 2025, June 6 (accessed). California State Scenic Highway System Map. https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa.

CAPCOA (California Air Pollution Control Officers Association). 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1. Prepared by: ICF in collaboration with Sacramento Metropolitan Air Quality Management District.

CARB (California Air Resources Board). 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm.

CARB. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf.

6. REFERENCES

CARB. 2025, April 11 (accessed). Area Designations Maps/State and National. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

CDFW (California Department of Fish and Wildlife). 2025a, May 28 (accessed). Conservation Plan Boundaries: HCP and NCCP [Interactive Map]. https://data-cdfw.opendata.arcgis.com/datasets/CDFW::conservation-plan-boundaries-hcp-and-nccp-ds760/explore?location=33.365798%2C-117.656230%2C8.65.

CDFW. 2025b, June 2 (accessed). BIOS6 viewer. https://apps.wildlife.ca.gov/bios6/?bookmark=648.

CDFW. 2025c, June 2 (accessed). ACE Dataset Fact Sheet: Terrestrial Connectivity. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835.

CDFW. 2025d, December 4 (accessed). California Outdoors Q&A. https://wildlife.ca.gov/COQA/tag/conflict-wildlife.

CGS (California Geological Survey). 2017. Webservice of Official Map of Seismic Hazard Zones. https://www.arcgis.com/home/item.html?id=fcf1ebfe19be49819a12c404d74b4a7d.

CNRA (California Natural Resources Agency). 2018, November. Final Statement of Reasons for Regulatory Action. https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_ceqa_final_statement_of%20reasons_111218.pdf.

DOC (California Department of Conservation). 2010. Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, Los Angeles County, California.

DOC. 2016. Mines Online. https://maps.conservation.ca.gov/mol/index.html.

DOC. 2020. California Important Farmland Finder. https://maps.conservation.ca.gov/dlrp/ciff/.

DOC. 2025, May 22 (accessed). Important Farmland Categories. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx.

DOC. 2025b, May 22 (accessed). California Williamson Act Enrollment Finder. https://maps.conservation.ca.gov/dlrp/WilliamsonAct/.

DOC. 2025c, June 6 (accessed). Tsunami Hazard Area Map. https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/.

DTSC (Department of Toxic Substances Control). 2025a, June 2 (accessed). EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Paal+Academy%2C+1545+Long+Beach+Blvd%2C+Long+Beach%2C+CA+90813.

DTSC. 2025b, June 2 (accessed). Cortese List. https://dtsc.ca.gov/dtscs-cortese-list/.

DWR (Department of Water Resources). 2025a, June 26 (accessed). Dam Breach Inundation Map Web Publisher. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

DWR. 2025b, June 26 (accessed). SGMA Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/.

FEMA (Federal Emergency Management Agency). 2025, May 29 (accessed). FEMA Flood Map Service Center: Search by Address. https://msc.fema.gov/portal/search.

FTA (Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

IDA (International Dark Sky Association). 2011. Illuminating Engineering Society Model Lighting Ordinance.

LBUB (Long Beach Utilities Department). 2025a, June 9 (accessed). Ground and Imported Water. https://www.lbutilities.org/water/water-sources/ground-and-imported-water.

LBUB. 2025b, June 9 (accessed). Sewer. https://www.lbutilities.org/sewer#:~:text=Long%20Beach%20Utilities%20operates%20and,east%20side%20of%20the%20City.

LBUSD (Long Beach Unified School District). 2017a Cultural Resources Assessment for Long Beach Unified School District.

LBUSD. 2017b. Archaeological and Paleontological Resources Assessment.

LBUSD. 2025. Initial Study/Mitigated Negative Declaration for the Polytechnic High School Transformation Project.

LCI (Governor's Office of Land Use and Climate Innovation). 2008, June. CEQA and Climate Change: Addressing Climate Change through CEQA Review. Technical Advisory. https://lci.ca.gov/docs/june08-ceqa.pdf.

6. REFERENCES

Long Beach, City of. 1973. Long Beach General Plan Conservation Element. https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/general-plan/1973-conservation-element.

Long Beach. 1988. Long Beach General Plan Seismic Safety Element. https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/general-plan/seismic-safety-element_reduced.

Long Beach. 2006. Public Works Department: Tree Maintenance Policy. https://www.longbeach.gov/globalassets/pw/media-library/documents/services/services/street-trees/tree-maintenance-policy.

Long Beach. 2014 Citywide Traffic Flow. https://www.longbeach.gov/globalassets/pw/media-library/documents/resources/general/maps-and-gis/2014-Citywide-traffic-flow.

Long Beach. 2015. Office of Disaster Preparedness and Emergency Communications: Emergency Operations Plan.

Long Beach. 2016. Midtown Specific Plan. https://longbeach.gov/globalassets/lbcd/media-library/documents/planning/midtown-specific-plan/midtown-specific-plan-june-2016---february-2021.

Long Beach. 2023b. City of Long Beach Fiscal Year 2023 Adopted Budget: Fire Department. https://www.longbeach.gov/globalassets/finance/media-library/documents/City-budget-and-finances/budget/budget-documents/fy-23-adopted-budget/23-fire.

Long Beach. 2023a. City of Long Beach General Plan Noise Element.

Long Beach. 2024. City of Long Beach Use District Map: Page 10. https://longbeach.gov/globalassets/lbcd/media-library/documents/planning/maps/land-use-maps/lb2040_mapbook_page_10.

Long Beach. 2025a, May 28 (accessed). About the LBPD. https://www.longbeach.gov/police/about-the-lbpd/.

Long Beach. 2025b, June 27 (accessed). Refuse Collection 101. https://www.longbeach.gov/lbrecycles/refuse/curbside-collection/refuse-collection-101/.

NID (National Inventory of Dams). 2025, June 26 (accessed). National Inventory of Dams Mapper. https://nid.sec.usace.army.mil/#/dams/search/sy=@countyState:Los%20Angeles,%20California%20@name:rossmoor%20retarding%20basin&viewType=map&resultsType=dams&advanced=false&hideList=false&eventSystem=false.

NPS (National Park Service). 2025a, May 30 (accessed). National Register of Historic Places. https://www.nps.gov/subjects/nationalregister/database-research.htm#table.

NPS. 2025b, May 30 (accessed). National Register of Historic Places: Map. https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466.

OEHHA (Office of Environmental Health Hazard Assessment). 2015, February. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

OHP (California Office of Historic Preservation). 2025a, May 30 (accessed). California Historical Landmarks by County. https://ohp.parks.ca.gov/?page_id=21427.

OHP. 2025b, May 30 (accessed) California Historical Resources. https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=19.

PCR Services Corporation. 2017a. Archeological Resources Assessment of the Proposed Long Beach Unified School District Facility Master Plan.

PCR Services Corporation. 2017b. Paleontological Resources Assessment of the Proposed Long Beach Unified School District Facility Master Plan.

SCAG (Southern California Association of Governments). 2024. Connect SoCal Plan: The 2024–2050 Regional Transportation Plan / Sustainable Communities Strategy of the Southern California Association of Governments. https://scag.ca.gov/connect-socal.

South Coast AQMD (South Coast Air Quality Management District). 1993. California Environmental Quality Act Air Quality Handbook.

South Coast AQMD. 2008a, July. Final Localized Significance Threshold Methodology. https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

South Coast AQMD. 2008b, October. Draft Guidance Document: Interim CEQA Greenhouse Gas (GHG) Significance Threshold. https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf.

South Coast AQMD. 2010, September 28. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf.

6. REFERENCES

South Coast AQMD. 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2.

South Coast AQMD. 2022, December 2. 2022 Air Quality Management Plan (AQMP). https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

South Coast AQMD. 2023, March. South Coast AQMD Air Quality Significance Thresholds. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.

SWRCB (State Water Resources Control Board). 2025, June 2 (accessed). GeoTracker. https://geotracker.waterboards.ca.gov/map/.

USEPA (United States Environmental Protection Agency). 2025, June 2 (accessed). EnviroMapper. https://geopub.epa.gov/myem/efmap/index.html.

USFS (United States Forest Service). 2020. Wildland Urban Interface. https://data-usfs.hub.arcgis.com/documents/7804d89ed1094ccb9aae753228e8d89a/explore.

USFWS (United States Fish and Wildlife Service). 2025a, June 2 (accessed). Critical Habitat for Threatened and Endangered Species. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap =9d8de5e265ad4fe09893cf75b8dbfb77.

USFWS. 2025b, June 2 (accessed). Natural Wetlands Inventory. https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/.

Appendix A Air Quality and Greenhouse Gas Appendix

Air Quality and Greenhouse Gas Appendix

Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

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/m^3	*	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/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4,6]	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3	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/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	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.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
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.
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

[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).

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 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]

---

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}

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 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.

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.

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*, summarizes the potential health effects associated with the criteria air pollutants.

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.

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 48.5°F in December, and the highest average temperature is 82°F in August (USA.Com 2025).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 14.59 inches per year in the vicinity of the area (USA.Com 2025).

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) 4: South Los Angeles County Coastal. The air quality monitoring station closest to the proposed project is the Long Beach-Signal Hill Monitoring Station, which is one of 31 monitoring stations South Coast AQMD operates and maintains within the SoCAB.[7] Data from this station includes O_3, NO_2, PM_{10}, and $PM_{2.5}$. Table 4, *Ambient Air Quality Monitoring Summary*, shows rare violations of the state and federal O_3 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]		
	2021	2022	2023
Ozone (O_3)			
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	0	1	0
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	0	1	0
Max. 1-Hour Conc. (ppm)	0.086	0.108	0.089
Max. 8-Hour Conc. (ppm)	0.064	0.077	0.065
Nitrogen Dioxide (NO_2)			
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0
Max. 1-Hour Conc. (ppb)	0.0590	0.0581	0.0562
Coarse Particulates (PM_{10})			
State 24-Hour > 50 µg/m³ (days exceed threshold)	0	*	*
Federal 24-Hour > 150 µg/m³ (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m³)	*	57.9	81.2
Fine Particulates ($PM_{2.5}$)			
Federal 24-Hour > 35 µg/m³ (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m³)	*	26.7	31.0

Source: CARB 2025d.
Notes: ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; * = Data not available
[1] Data for O_3, NO_2, $PM_{2.5}$, and PM_{10} from Long Beach-Signal Hill Monitoring Station.
[2] Most recent data available as of May 2025.

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

[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.

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 west and single-family houses to the north of the project site.

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

[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

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 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

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.

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.

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*.

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. The screening-level construction LSTs for the project site in SRA 4 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

	Threshold (lbs/day)[1]			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acre Disturbed Per Day	57	585	4.00	3.00
1.94 Acre Disturbed Per Day	80	826	6.81	4.87
2.00 Acre Disturbed Per Day	82	842	7.00	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 park and recreational 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 Risk1	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.
Notes:
[1] Most current MATES V is based on 2018 data.

As stated previously, South Coast AQMD has identified that the initial thresholds in Table 3.2-9 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).

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.

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

[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.

[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.

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 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.

[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.

- ***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]

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.

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).

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

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.

Table 11 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
	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) .
	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–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.

---

[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.

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 GREENHOUSE GAS 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).

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:

[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.

- **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 (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.

LONG BEACH CLIMATE ACTION AND ADAPTATION PLAN

CEQA Guidelines Section 15183.5(b), Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, allows for lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level. Pursuant to CEQA Guidelines Section 15183.5(b), later project-specific environmental documents may tier from and/or incorporate by reference the GHG reduction plan so long as it includes the following plan elements:

- Quantifies GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.

- Establishes a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.

- Identifies and analyzes the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.

- Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.

- Establishes a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.

- Is adopted in a public process following environmental review.

The City adopted its Climate Action and Adaptation Plan (CAAP) in August 2022 to aid in reducing GHG emissions and better adapt to climate change impacts (Long Beach 2022). The CAAP also includes the City's community-wide GHG inventory and climate vulnerability assessment, which provided fundamental local data to develop the CAAP actions. This comprehensive planning document will help the City comply with various local, regional, State, and federal regulations to significantly reduce GHG emissions. The City's near-

[17] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

term target to reduce per-service-population emissions (i.e., residents plus employees) from 4.48 MTCO2e per service population in 2015 to 3.04 $MTCO_2e$ per service population in 2030 was selected based on CARB's 2017 Scoping Plan. The long-term 2045 emission target was set to achieve citywide net carbon neutrality consistent with Executive Order (EO) B-55-18. The CAAP has been incorporated into the Long Beach General Plan Land Use Element update to meet the requirements of Senate Bill (SB) 379, which states that cities or counties must include climate adaptation and resiliency strategies in their general plans to ensure the safety and protection of their communities.

The CAAP identified that with implementation of the GHG reduction measures and State reduction efforts, the City's GHG emissions would be met and slightly exceed the 2030 target with an estimated 2.78 MTCO2e per service population. However, the City would not achieve its 2045 emissions target and would require additional action to achieve its ambitious carbon neutrality goal. The City's CAAP is a qualified GHG reduction plan for near-term projects under SB 32. Although the City's CAAP was adopted prior to AB 1279 in September 2022, it provides a pathway to be on a trajectory to achieve these long-range targets, including consistency with the State's carbon neutrality goals.

For the purposes of this analysis, the CAAP GHG Emission Consistency Review Checklist is used as the significance threshold for this project. Therefore, if the project is not determined to be consistent with the City's General Plan and CAAP GHG Emission Consistency Review Checklist, then GHG emissions would be considered potentially significant in the absence of reduction measures.

REFERENCES

Bay Area Air District. 2023, April. 2022 California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

California Air Pollution Control Officer's Association (CAPCOA). 2022, August. CalEEMod, California Emissions Estimator Model User Guide, Version 2022.1. Prepared by: ICF in collaboration with Sacramento Metropolitan Air Quality Management District. https://www.caleemod.com/user-guide.

California Air Resources Board (CARB). 1999. California Air Resources Board (CARB). Final Staff Report: Update to the Toxic Air Contaminant List.

———. 2010, September. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375. https://ww3.arb.ca.gov/board/res/2010/res10-31.pdf.

———. 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf.

———. 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf.

———. 2021, December 9. Staff Report, CARB Review of the South Coast 2021 Redesignation Request and Maintenance Plan. https://ww2.arb.ca.gov/sites/default/files/2021-10/Staff_Report_for_the_South_Coast_PM2.5_Redesignation_Request_and_Maintenance_Plan.pdf.

———. 2022, December 15. CARB 2022 Scoping Plan for Achieving Carbon Neutrality: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

———. 2024a, July 16. Ambient Air Quality Standards. https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.

———. 2024b. September 20. California Greenhouse Gas Emissions from 2000-2022: Trends of Emissions and Other Indicators Report. https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf.

———. 2025a, May 23 (accessed). Area Designations Maps/State and National. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

———. 2025b, May 23 (accessed). Overview: Diesel Exhaust & Health. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.

———. 2025c, May 23 (accessed). Common Air Pollutants. https://ww2.arb.ca.gov/resources/common-air-pollutants.

———. 2025d, May 23 (accessed). Air Pollution Data Monitoring Cards (2021, 2022, and 2023). https://www.arb.ca.gov/adam/topfour/topfour1.php.

Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf.

———. 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf.

———. 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.

———. 2023. Sixth Assessment Report: Climate Change 2022. New York: Cambridge University Press. https://www.ipcc.ch/assessment-report/ar6/.

Long Beach, City of. 2022, August. *Long Beach Climate Action and Adaptation Plan* (CAAP), https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/lb-cap/adopted-lb-cap_-aug-2022.

National Highway Traffic Safety Administration (NHTSA). 2022, April 1. USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026. https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026.

———. 2024, June 7. Corporate Average Fuel Economy, NHTSA Announces New Proposal for CAFE and HDPUV Standards. https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

Southern California Association of Governments (SCAG). 2024. Connect SoCal Plan: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) of the Southern California Association of Governments. https://scag.ca.gov/connect-socal.

South Coast Air Quality Management District (South Coast AQMD). 1992. Federal Attainment Plan for Carbon Monoxide.

———. 1993. California Environmental Quality Act Air Quality Handbook.

———. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

———. 2008, July. Final Localized Significance Threshold Methodology. https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

———. 2010, September 28. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 15. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf.

———. 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf.

———. 2012, May 4. Final 2012 Lead State Implementation Plan: Los Angeles County. http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf.

———. 2015a. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf.

———. 2015b, October. "Blueprint for Clean Air: 2016 AQMP White Paper." 2016 AQMP White Papers Web Page. https://www.aqmd.gov/docs/default-source/Agendas/aqmp/white-paper-working-groups/wp-blueprint-final.pdf?sfvrsn=2.

———. 2021a, October. Draft Final 2021 Redesignation Request and Maintenance Plan for the 2006 and 1997 24-Hour PM2.5 Standards for South Coast Air Basin. https://ww2.arb.ca.gov/sites/default/files/2021-10/draft-final-pm2-5-redesignation-request-and-maintenance-plan.pdf.

———. 2021b, August. Final Report, Multiple Air Toxics Exposure Study V (MATES V). http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.

———. 2022, December. Final 2022 Air Quality Management Plan. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

———. 2023, March (revised). South Coast AQMD Air Quality Significance Thresholds. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.

———. 2024, November 6. Cumulative Impacts from Air Toxics for CEQA Projects. Working Group Meeting #6. https://www.aqmd.gov/docs/default-source/ceqa/documents/wgm-6-20241106.pdf?sfvrsn=405a8561_13.

USA.Com. 2025, May 23 (accessed). Long Beach, CA Weather. http://www.usa.com/long-beach-ca-weather.htm.

US Environmental Protection Agency (US EPA). 2009, December. EPA: Greenhouse Gases Threaten Public Health and the Environment. Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity.

https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html.

———. 2025a, June 3 (updated). Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

———. 2025b, February 25 (updated). Health and Environmental Effects of Hazardous Air Pollutants. https://www.epa.gov/haps/health-and-environmental-effects-hazardous-air-pollutants.

Assumptions Worksheet

CalEEMod Inputs - Poly HS Field Improvements Project, Construction

Name:	Poly HS Field Improvements Project
Project Number:	LBSD-24.0
Project Location:	1545 Long Beach Blvd, Long Beach, CA 90813
County/Air Basin:	South Coast
Climate Zone:	9
Land Use Setting:	Urban
Gas Utility Company:	Long Beach Gas & Oil
Electric Utility Company:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	South Coast AQMD
SRA:	4 - South Los Angeles County Coastal

Project Site Acreage	1.90
Disturbed Site Acreage	2.00

Project Components	SQFT	Tons	CY
Demolition			
Building Demolition	30,000	1,380	2,760
Asphalt Demolition	41,500	615	1,230
Landscaping removed	14,500	NA	269
	TOTAL TONS	**1,995**	**4,258**

Notes:

[1] Asphalt demolition includes asphalt and concrete demolition.

	Number of Stories	SQFT	Building Footprint	Acres
Construction				
Restroom Building	1	480	480	0.01
Concessions Building	1	480	480	0.01
Onsite Surface Work	**Number of Stalls**	**SQFT**	**Building Footprint**	**Acres**
Softball/Multi-purpose field	NA	69,000	NA	1.58
Concrete Hardscape	NA	17,100	NA	0.39
Parking Area[1]	39	13,000	NA	0.30

Notes:

[1] No new parking proposed, only restriping of existing parking area.

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet	Landscape Area Square Feet	Special Landscape Area Square Feet
Educational	High School	0.96	1000 sqft	1.61	960	0	69,000
Parking	Other Non-Asphalt Surfaces	17.10	1000 sqft	0.39	17,100	0	0
				2.00			

Notes:

[1] Parking area was not included since no new parking proposed, only restriping of existing parking area.

Demolition

Component	Amount to be Demolished (Tons)	Haul Truck Capacity (Tons per truck)[1]	Haul Distance (miles)[1]	Total Trip Ends	Duration (days)	Trip Ends/Day
Building Demolition Debris Haul (Tons)	1380	8	20	346	22	16
Asphalt Demolition Debris Haul (Tons)	615	8	20	154	22	7
	1,995					**23**

Notes:

[1] CalEEMod default used.

Soil Haul

Construction Activities	Volume (CY)	Haul Truck Capacity (CY)[2]	Haul Distance (miles)[2]	Total Trip Ends	Total Days	Trip Ends/Day
Site Preparation soil haul (export)[1]	269	16	20	34	3	11
Grading soil haul (export)	848	16	20	106	7	15
						26

Notes:

[1] Included landscaping removal as part of site preparation soil haul.

[2] CalEEMod default used.

Architectural Coating

	Percent Painted
Interior Painted:	100%
Exterior Painted:	100%

SCAQMD Rule 1113

Interior Paint VOC content:	50	grams per liter
Exterior Paing VOC content:	50	grams per liter
Parking Paing VOC content:	100	grams per liter

Structures	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Non-Residential Structures					
High School	960	2.0	1,920	1,440	480
				1,440	**480**
Parking					
Other Non-Asphalt Surfaces	17,100	6%	1,026	-	1,026
Parking Area	13,000	6%	780	-	780
					1,806

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] The program assumes the total surface for painting equals 2 times the floor square footage for nonresidential square footage defined by the user.

[3] CalEEmod default assumes 6% of other non-asphalt surfaces and existing parking lot will be striped.

CalEEMod Construction Measures

SCAQMD Rule 403	Water Exposed Surfaces	Frequency per day:	2	
		PM10:	55	% Reduction
		PM2.5:	55	% Reduction
Unpaved Roads		Vehicle Speed:	25	mph
		PM10:	44	% Reduction
		PM25:	44	% Reduction
SCAQMD Rule 1186	Sweep Paved Roads	PM10:	9	% Reduction
		PM25:	9	% Reduction

Southern California Edison Carbon Intensity Factors

	Forecasted Factors 2027[1]	
CO2:	346.20	pounds per megawatt hour
CH4:	0.033	pound per megawatt hour
N2O:	0.004	pound per megawatt hour

Notes:

[1] CalEEMod default values.

Building Demolition Haul Trip Calculation

Source: CalEEMod User's Guide Version 2022.1, Appendix C

Conversion factors

0.046	ton/SF	Building Debris
2	CY/ton	Building Debris
1.2641662	tons/CY	Soil
20	tons	Truck Capacity in tons
10	CY	Truck Capacity in CY
0.5	CY/ton	Soil

Building	BSF Demo[1]	Tons/SF	Tons	CY of Building Materials	Haul Truck (CY)	Haul Truck (Ton)[2]	Round Trips	Total Trip Ends
Building Demo	30,000	0.046	1380	2760	16	20	173	346

Notes:

[1] Building SF provided by District.

[2] CalEEMod default haul truck capacity used.

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)	AC Mass (CY)
Asphalt Demolition	41,500	0.333	13,833	89	1,229,630	614.81	1229.63
Total	41,500					615	1,230

[1] Asphalt demolition SF provided by 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.

Landscaping Removal Calculation

Component	Landscaping SF Removed[1]	Assumed Thickness (feet)[2]	Cubic Feet/Cubic Yard	Cubic Yards (CY) of Landscaping
Existing Landscaping	14,500	0.5	27	269

Notes:

[1] Landscaping SF provided by District.

[2] Robert Heslip Landscapes. 2025, April 21. How deep do you dig to remove grass. https://robertheslip.com/blog/how-deep-do-you-dig-to-remove-grass/.

Construction Activities and Schedule Assumptions

Default Construction Schedule				
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Demolition	Demolition	9/1/2026	9/29/2026	21
Site Preparation	Site Preparation	9/30/2026	10/4/2026	3
Grading	Grading	10/5/2026	10/13/2026	7
Building Construction	Building Construction	10/14/2026	8/18/2027	221
Paving	Paving	8/5/2027	8/18/2027	10
Architectural Coating	Architectural Coating	8/5/2027	8/18/2027	10

Notes:

[1] Conservatively assume building construction, paving, and architectural coating would overlap.

Normalization Calculations			
CalEEMod Defaults Construction Duration		**Assumed Construction Duration**	
351	days of construction	9/1/2026	9/1/2027
0.96	years of construction	365	days
11.54	months of construction	12	months
		Normalization Factor:	1.04

New CalEEMod Construction Schedule				
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Building and Asphalt Demolition	Demolition	9/1/2026	9/30/2026	22
Site Preparation	Site Preparation	10/1/2026	10/5/2026	3
Grading	Grading	10/6/2026	10/14/2026	7
Utility Trenching[1]	Trenching	10/6/2026	10/14/2026	7
Building Construction and Field Installation	Building Construction	10/15/2026	9/1/2027	230
Paving	Paving	8/19/2027	9/1/2027	10
Architectural Coating	Architectural Coating	8/19/2027	9/1/2027	10

Notes:

[1] Assume same duration as grading phase.

Overlapping Construction Schedule			
Construction Activities	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Building and Asphalt Demolition	9/1/2026	9/30/2026	22
Site Preparation	10/1/2026	10/5/2026	3
Grading and Utility Trenching	10/6/2026	10/14/2026	7
Building Construction and Field Installation	10/15/2026	8/18/2027	220
Building Construction and Field Installation, Paving, and Architectural Coating	8/19/2027	9/1/2027	10

CalEEMod Construction Off-Road Equipment Inputs

Where information has not been provided, CalEEMod default equipment, worker, and vendor trips have been used.

Construction Equipment Details[1]			
CalEEMod Equipment	**# of Equipment**	**hr/day**	**total trips per day**
Building and Asphalt Demolition			
Concrete/Industrial Saws	1	8	
Rubber Tired Dozers	1	8	
Tractors/Loaders/Backhoes	3	8	
Worker Trips			13
Vendor Trips			2
Hauling Trips			23
Water Trucks	Acres Disturbed Per Day:	2	10
	Onsite Travel (mi/day):	1.65	
Site Preparation			
Graders	1	8	
Scrapers	1	8	
Tractors/Loaders/Backhoes	1	7	
Worker Trips			8
Vendor Trips			1
Hauling Trips			11
Water Trucks	Acres Disturbed Per Day:	2	10
	Onsite Travel (mi/day):	1.60	
Grading			
Graders	1	8	
Rubber Tired Dozers	1	8	
Tractors/Loaders/Backhoes	2	7	
Worker Trips			10
Vendor Trips			3
Hauling Trips			15
Water Trucks	Acres Disturbed Per Day:	2	10
	Onsite Travel (mi/day):	1.55	
Utility Trenching[1]			
Tractors/Loaders/Backhoes	1	8	
Forklifts	1	8	
Worker Trips			5
Vendor Trips			0
Hauling Trips			0
Water Trucks	Acres Disturbed Per Day:	0.5	4
	Onsite Travel (mi/day):	0.41	
Building Construction and Field Installation[2]			
Cranes	1	8	
Forklifts	2	7	
Generator Sets	1	8	
Tractors/Loaders/Backhoes	1	6	
Welders	3	8	
Worker Trips			20
Vendor Trips			0
Hauling Trips			0

Paving				
	Cement and Mortar Mixers	1	8	
	Pavers	1	8	
	Paving Equipment	1	8	
	Rollers	2	8	
	Tractors/Loaders/Backhoes	1	8	
	Worker Trips			15
	Vendor Trips			2
	Hauling Trips			0
Architectural Coating				
	Air Compressors	1	6	
	Worker Trips			4
	Vendor Trips			0
	Hauling Trips			0

Notes:

[1] Equipment from similar field improvement project.

[2] Equipment accounts for field lighting installation.

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-

[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 - Poly HS Field Improvements Project, Operation

Name: Poly HS Field Improvements Project
Project Number: LBSD-24.0
Project Location: 1545 Long Beach Blvd, Long Beach, CA 90813
County/Air Basin: South Coast
Climate Zone: 9
Land Use Setting: Urban
Gas Utility Company: Long Beach Gas & Oil
Electric Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast AQMD
SRA: 4 - South Los Angeles County Coastal

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet	Landscape Area Square Feet	Special Landscape Area Square Feet
Educational	High School	0.96	1000 sqft	1.61	960	0	69,000
Parking	Other Non-Asphalt Surfaces	17.10	1000 sqft	0.39	17,100	0	0
				2.00			

Vehicle Trips

Not evaluating mobile emissions since student capacity would not increase and the proposed sports facility would not generate new trips in the District boundaries

Water Use (CalEEMod default)[1]

	Indoor (gals/year)	Outdoor (gals/year)	Total
High School	31,876	1,182,740	1,214,616

Notes

[1] Assumes 100% aerobic treatment.

Solid Waste (CalEEMod default)

Land Use	Total Solid Waste (tons/year)
High School	1.25

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	6,004.17	20,140.69	**5,190.55**	**10,244.66**	813.62	9,896.03
Other Non-Asphalt Surfaces	0.00	0.00	**0.00**	**0.00**	0.00	0.00

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	10,244.66	3.00	**9,896.03**	**2.90**
Other Non-Asphalt Surfaces	0.00	0.00	**0.00**	**0.00**

*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	6,010.07	0.00	**5,193.55**	**0.00**	816.52	0.00
Other Non-Asphalt Surfaces	0.00	0.00	**0.00**	**0.00**	0.00	0.00

Architectural Coating (see Construction Tab)

CalEEMod Construction and Operation Model

Poly HS Field Improvements Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Building and Asphalt Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction and Field Installation (2026) - Unmitigated

3.9. Building Construction and Field Installation (2027) - Unmitigated

3.11. Paving (2027) - Unmitigated

3.13. Architectural Coating (2027) - Unmitigated

3.15. Utility Trenching (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Poly HS Field Improvements Project
Construction Start Date	9/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	18.4
Location	1545 Long Beach Blvd, Long Beach, CA 90813, USA
County	Los Angeles-South Coast
City	Long Beach
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4751
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Long Beach Gas & Oil
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
High School	0.96	1000sqft	1.61	960	0.00	69,000	—	—

Other Non-Asphalt Surfaces	17.1	1000sqft	0.39	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.71	3.31	16.5	23.4	0.04	0.57	2.54	3.08	0.53	0.43	0.92	—	4,587	4,587	0.21	0.33	5.06	4,695
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	1.68	16.6	18.6	0.04	0.67	4.11	4.78	0.61	1.57	2.18	—	4,661	4,661	0.21	0.27	0.12	4,748
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75	0.63	4.86	6.38	0.01	0.16	0.28	0.39	0.15	0.07	0.18	—	1,221	1,221	0.05	0.03	0.24	1,227
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.11	0.89	1.17	< 0.005	0.03	0.05	0.07	0.03	0.01	0.03	—	202	202	0.01	0.01	0.04	203

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	1.85	1.47	15.3	16.4	0.04	0.53	2.54	3.08	0.49	0.43	0.92	—	4,587	4,587	0.21	0.33	5.06	4,695
2027	3.71	3.31	16.5	23.4	0.04	0.57	0.53	1.10	0.53	0.12	0.65	—	4,162	4,162	0.17	0.06	1.79	4,185
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.08	1.68	16.6	18.6	0.04	0.67	4.11	4.78	0.61	1.57	2.18	—	4,661	4,661	0.21	0.27	0.12	4,748
2027	1.43	1.20	9.79	12.7	0.02	0.32	0.26	0.58	0.30	0.06	0.36	—	2,458	2,458	0.09	0.03	0.02	2,468
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.39	0.32	2.90	3.41	0.01	0.10	0.28	0.39	0.10	0.07	0.16	—	774	774	0.03	0.03	0.24	785
2027	0.75	0.63	4.86	6.38	0.01	0.16	0.13	0.29	0.15	0.03	0.18	—	1,221	1,221	0.05	0.01	0.18	1,227
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.53	0.62	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	128	128	0.01	0.01	0.04	130
2027	0.14	0.11	0.89	1.17	< 0.005	0.03	0.02	0.05	0.03	0.01	0.03	—	202	202	0.01	< 0.005	0.03	203

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.	0.03	0.03	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.74	12.0	12.8	0.07	< 0.005	< 0.005	14.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	11.9	12.6	0.07	< 0.005	< 0.005	14.4
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.03	0.03	< 0.005	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.74	12.0	12.7	0.07	< 0.005	< 0.005	14.5
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.12	1.98	2.11	0.01	< 0.005	< 0.005	2.40

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.03	0.03	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Water	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.03	0.03	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.74	12.0	12.8	0.07	< 0.005	< 0.005	14.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Water	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	11.9	12.6	0.07	< 0.005	< 0.005	14.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.03	0.03	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Water	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.03	0.03	< 0.005	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.74	12.0	12.7	0.07	< 0.005	< 0.005	14.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.94	0.94	< 0.005	< 0.005	—	0.95
Water	—	—	—	—	—	—	—	—	—	—	—	0.01	1.02	1.03	< 0.005	< 0.005	—	1.05
Waste	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.12	1.98	2.11	0.01	< 0.005	< 0.005	2.40

3. Construction Emissions Details

3.1. Building and Asphalt 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	1.66	1.39	12.9	14.6	0.02	0.51	—	0.51	0.47	—	0.47	—	2,494	2,494	0.10	0.02	—	2,503

Demolition	—	—	—	—	—	—	1.25	1.25	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.61	0.61	< 0.005	0.06	0.06	—	7.15	7.15	< 0.005	< 0.005	0.01	7.53
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.78	0.88	< 0.005	0.03	—	0.03	0.03	—	0.03	—	150	150	0.01	< 0.005	—	151
Demolition	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.45
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	25.0
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.08
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.81	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	169	169	0.01	0.01	0.57	172
Vendor	0.03	0.01	0.41	0.20	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	374	374	0.02	0.05	1.01	391
Hauling	0.11	0.02	1.86	0.73	0.01	0.02	0.42	0.44	0.02	0.12	0.14	—	1,543	1,543	0.09	0.25	3.46	1,622

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.82	9.82	< 0.005	< 0.005	0.01	9.95
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.6	22.6	< 0.005	< 0.005	0.03	23.6
Hauling	0.01	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	93.0	93.0	0.01	0.01	0.09	97.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.63	1.63	< 0.005	< 0.005	< 0.005	1.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.73	3.73	< 0.005	< 0.005	< 0.005	3.90
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.01	16.2

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	1.13	9.84	10.8	0.03	0.42	—	0.42	0.39	—	0.39	—	2,716	2,716	0.11	0.02	—	2,725
Dust From Material Movement	—	—	—	—	—	—	0.62	0.62	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.59	0.59	< 0.005	0.06	0.06	—	7.01	7.01	< 0.005	< 0.005	< 0.005	7.37

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.70	3.70	< 0.005	< 0.005	—	3.71
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	96.3	96.3	< 0.005	< 0.005	0.01	97.5
Vendor	0.02	0.01	0.40	0.19	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	343	343	0.01	0.05	0.02	358
Hauling	0.05	0.01	0.96	0.37	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	771	771	0.04	0.12	0.04	809
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.81

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.82	2.82	< 0.005	< 0.005	< 0.005	2.95
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.34	6.34	< 0.005	< 0.005	0.01	6.65
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.49
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.10

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.58	0.58	< 0.005	0.06	0.06	—	6.84	6.84	< 0.005	< 0.005	< 0.005	7.20
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.1	47.1	< 0.005	< 0.005	—	47.2

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.80	7.80	< 0.005	< 0.005	—	7.82
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	128	128	0.01	< 0.005	0.01	130
Vendor	0.03	0.01	0.47	0.22	< 0.005	0.01	0.11	0.12	< 0.005	0.03	0.03	—	406	406	0.02	0.06	0.03	423
Hauling	0.07	0.02	1.29	0.49	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	1,030	1,030	0.06	0.16	0.06	1,081
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.50	2.50	< 0.005	< 0.005	< 0.005	2.53
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.77	7.77	< 0.005	< 0.005	0.01	8.12
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.8	19.8	< 0.005	< 0.005	0.02	20.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.41	0.41	< 0.005	< 0.005	< 0.005	0.42

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.29	1.29	< 0.005	< 0.005	< 0.005	1.34
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.27	3.27	< 0.005	< 0.005	< 0.005	3.43

3.7. Building Construction and Field Installation (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	1.41	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.54	1.79	< 0.005	0.06	—	0.06	0.05	—	0.05	—	336	336	0.01	< 0.005	—	337
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	55.6	55.6	< 0.005	< 0.005	—	55.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.10	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	257	257	0.01	0.01	0.02	260
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.91	4.91	< 0.005	< 0.005	< 0.005	5.12
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.8	39.8	< 0.005	< 0.005	0.06	40.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.78
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.59	6.59	< 0.005	< 0.005	0.01	6.68
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction and Field Installation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30	—	2,201	2,201	0.09	0.02	—	2,208

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	0.54	4.63	5.59	0.01	0.15	—	0.15	0.14	—	0.14	—	1,051	1,051	0.04	0.01	—	1,055
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.84	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	—	174	174	0.01	< 0.005	—	175
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.20	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	266	266	0.01	0.01	0.83	270
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.81	4.81	< 0.005	< 0.005	0.01	5.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.08	0.07	0.09	1.02	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	252	252	< 0.005	0.01	0.02	255
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.81	4.81	< 0.005	< 0.005	< 0.005	5.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	122	122	< 0.005	< 0.005	0.17	124
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.30	2.30	< 0.005	< 0.005	< 0.005	2.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.2	20.2	< 0.005	< 0.005	0.03	20.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.65	5.74	8.20	0.01	0.23	—	0.23	0.21	—	0.21	—	1,244	1,244	0.05	0.01	—	1,248
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.02	0.02	0.16	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.1	34.1	< 0.005	< 0.005	—	34.2
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.64	5.64	< 0.005	< 0.005	—	5.66
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	0.01	0.01	0.62	202
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.1	61.1	< 0.005	0.01	0.16	63.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.25	5.25	< 0.005	< 0.005	0.01	5.32
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.75
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.88
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.29
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.28	1.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.2	53.2	< 0.005	< 0.005	0.17	53.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Utility Trenching (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	0.20	0.17	1.71	2.94	< 0.005	0.07	—	0.07	0.06	—	0.06	—	443	443	0.02	< 0.005	—	444
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.15	0.15	< 0.005	0.02	0.02	—	3.06	3.06	< 0.005	< 0.005	< 0.005	3.23
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.49	8.49	< 0.005	< 0.005	—	8.52
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.41	1.41	< 0.005	< 0.005	—	1.41
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.2	64.2	< 0.005	< 0.005	0.01	65.0
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	1.27
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.39	2.39	< 0.005	< 0.005	< 0.005	2.50
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.41
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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	—	—	—	—	—	—	—	—	—	—	—	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	5.70	5.70	< 0.005	< 0.005	—	5.73

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	5.70	5.70	< 0.005	< 0.005	—	5.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94	< 0.005	< 0.005	—	0.95
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94	< 0.005	< 0.005	—	0.95

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Total	0.03	0.03	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Total	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02

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	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.07	6.16	6.23	< 0.005	< 0.005	—	6.31
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.01	1.02	1.03	< 0.005	< 0.005	—	1.05
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.01	1.02	1.03	< 0.005	< 0.005	—	1.05

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.35
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High School	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.11	0.00	0.11	0.01	0.00	—	0.39

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Building and Asphalt Demolition	Demolition	9/1/2026	9/30/2026	5.00	22.0	—
Site Preparation	Site Preparation	10/1/2026	10/5/2026	5.00	3.00	—
Grading	Grading	10/6/2026	10/14/2026	5.00	7.00	—
Building Construction and Field Installation	Building Construction	10/15/2026	9/1/2027	5.00	230	—
Paving	Paving	8/19/2027	9/1/2027	5.00	10.0	—
Architectural Coating	Architectural Coating	8/19/2027	9/1/2027	5.00	10.0	—
Utility Trenching	Trenching	10/6/2026	10/14/2026	5.00	7.00	—

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
Building and Asphalt Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Building and Asphalt Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building and Asphalt Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction and Field Installation	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction and Field Installation	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction and Field Installation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction and Field Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction and Field Installation	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Utility Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Utility Trenching	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building and Asphalt Demolition	—	—	—	—
Building and Asphalt Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Building and Asphalt Demolition	Vendor	12.0	10.2	HHDT,MHDT
Building and Asphalt Demolition	Hauling	22.7	20.0	HHDT
Building and Asphalt Demolition	Onsite truck	1.00	1.65	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	11.0	10.2	HHDT,MHDT
Site Preparation	Hauling	11.3	20.0	HHDT
Site Preparation	Onsite truck	1.00	1.60	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	13.0	10.2	HHDT,MHDT
Grading	Hauling	15.1	20.0	HHDT
Grading	Onsite truck	1.00	1.55	HHDT
Building Construction and Field Installation	—	—	—	—
Building Construction and Field Installation	Worker	20.0	18.5	LDA,LDT1,LDT2

Building Construction and Field Installation	Vendor	0.16	10.2	HHDT,MHDT
Building Construction and Field Installation	Hauling	0.00	20.0	HHDT
Building Construction and Field Installation	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	2.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT
Utility Trenching	—	—	—	—
Utility Trenching	Worker	5.00	18.5	LDA,LDT1,LDT2
Utility Trenching	Vendor	4.00	10.2	HHDT,MHDT
Utility Trenching	Hauling	0.00	20.0	HHDT
Utility Trenching	Onsite truck	1.00	0.41	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	0.00	0.00	1,440	480	1,806

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Building and Asphalt Demolition	0.00	0.00	0.00	1,995	—
Site Preparation	0.00	269	4.50	0.00	—
Grading	0.00	848	6.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.39

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

Land Use	Area Paved (acres)	% Asphalt
High School	0.00	0%
Other Non-Asphalt Surfaces	0.39	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	0.00	346	0.03	< 0.005
2027	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
High School	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

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	0.00	1,440	480	1,806

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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	6,010	346	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
High School	31,876	1,182,740
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
High School	1.25	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	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	0.02	0.60	0.00	1.00
High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00

High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

8. User Changes to Default Data

Screen	Justification
Land Use	Based on PD
Construction: Construction Phases	Utility trenching phase assumed to have same duration as grading phase, see assumptions file
Construction: Off-Road Equipment	Equipment for utility trenching phase based on similar field improvements project, equipment mix in building construction phase accounts for field lighting installation, see assumptions file
Construction: Dust From Material Movement	Based on preliminary information provided by District

Construction: Trips and VMT	Included CalEEMod default vendor trips and calculated water truck trips as vendor trips, calculated onsite truck trip length, see assumptions file
Construction: Architectural Coatings	South Coast AQMD Rule 1113, account for 6% of non-asphalt surfaces and existing parking lot restriping
Operations: Architectural Coatings	South Coast AQMD Rule 1113, accounts for 6% of other non-asphalt surfaces and existing parking lot to be restriped, see assumptions file
Operations: Water and Waste Water	Assume 100 percent aerobic treatment
Operations: Vehicle Data	Not evaluating mobile emissions since student capacity would not increase and the proposed sports facility would not generate new trips in the District boundaries
Operations: Energy Use	All-electric design based on preliminary District information

Emissions Worksheet

Regional Construction Emissions Worksheet:

3.1. Building and Asphalt Demolition (2026) - Unmitigated							
		ROG	NOx	CO	SO[2]	PM10 Total	PM2.5Total
Onsite		**Summer**					
	Off-Road Equipment	1.39	12.90	14.60	0.02	0.51	0.47
	Demolition	0.00	0.00	0.00	0.00	1.25	0.19
	Onsite truck	0.01	0.02	0.01	0.01	0.61	0.06
	Total	**1.40**	**12.92**	**14.61**	**0.03**	**2.37**	**0.72**
Offsite							
	Worker	0.05	0.05	0.81	0.00	0.16	0.04
	Vendor	0.01	0.41	0.20	0.01	0.11	0.03
	Hauling	0.02	1.86	0.73	0.01	0.44	0.14
	Total	**0.08**	**2.32**	**1.74**	**0.02**	**0.71**	**0.21**
TOTAL		***1.48***	***15.24***	***16.35***	***0.04***	***3.08***	***0.93***

3.3. Site Preparation (2026) - Unmitigated							
		ROG	NOx	CO	SO[2]	PM10 Total	PM2.5Total
Onsite		**Winter**					
	Off-Road Equipment	1.13	9.84	10.80	0.03	0.42	0.39
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.62	0.07
	Onsite truck	0.01	0.02	0.01	0.01	0.59	0.06
	Total	**1.14**	**9.86**	**10.81**	**0.04**	**1.63**	**0.52**
Offsite							
	Worker	0.03	0.03	0.41	0.00	0.10	0.02
	Vendor	0.01	0.40	0.19	0.01	0.10	0.03
	Hauling	0.01	0.96	0.37	0.01	0.22	0.07
	Total	**0.05**	**1.39**	**0.97**	**0.02**	**0.42**	**0.12**
TOTAL		***1.19***	***11.25***	***11.78***	***0.05***	***2.05***	***0.64***

3.5. Grading (2026) - Unmitigated							
		ROG	NOx	CO	SO[2]	PM10 Total	PM2.5Total
Onsite		**Winter**					
	Off-Road Equipment	1.42	12.90	14.00	0.02	0.58	0.53
	Dust From Material Movement	0.00	0.00	0.00	0.00	2.76	1.34
	Onsite truck	0.01	0.02	0.01	0.01	0.58	0.06
	Total	**1.43**	**12.92**	**14.01**	**0.03**	**3.92**	**1.93**
Offsite							
	Worker	0.04	0.04	0.55	0.00	0.13	0.03
	Vendor	0.01	0.47	0.22	0.01	0.12	0.03
	Hauling	0.02	1.29	0.49	0.01	0.29	0.09
	Total	**0.07**	**1.80**	**1.26**	**0.02**	**0.54**	**0.15**
TOTAL		***1.50***	***14.72***	***15.27***	***0.04***	***4.46***	***2.08***

3.7. Building Construction and Field Installation (2026) - Unmitigated							
		ROG	NOx	CO	SO[2]	PM10 Total	PM2.5Total
Onsite		**Winter**					
	Off-Road Equipment	1.18	10.10	11.80	0.02	0.36	0.33
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**1.18**	**10.10**	**11.80**	**0.02**	**0.36**	**0.33**
Offsite							
	Worker	0.07	0.09	1.10	0.00	0.26	0.06
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.08**	**0.10**	**1.11**	**0.01**	**0.27**	**0.07**
TOTAL		***1.26***	***10.20***	***12.91***	***0.03***	***0.63***	***0.40***

3.9. Building Construction and Field Installation (2027) - Unmitigated

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	1.13	9.70	11.70	0.02	0.32	0.30
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**1.13**	**9.70**	**11.70**	**0.02**	**0.32**	**0.30**
Offsite							
	Worker	0.07	0.07	1.20	0.00	0.26	0.06
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.08**	**0.08**	**1.21**	**0.01**	**0.27**	**0.07**
TOTAL		***1.21***	***9.78***	***12.91***	***0.03***	***0.59***	***0.37***

3.11. Paving (2027) - Unmitigated

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	0.65	5.74	8.20	0.01	0.23	0.21
	Paving	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	**0.65**	**5.74**	**8.20**	**0.01**	**0.23**	**0.21**
Offsite							
	Worker	0.05	0.05	0.90	0.00	0.20	0.05
	Vendor	0.01	0.07	0.03	0.01	0.02	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.06**	**0.12**	**0.93**	**0.01**	**0.22**	**0.06**
TOTAL		***0.71***	***5.86***	***9.13***	***0.02***	***0.45***	***0.27***

3.13. Architectural Coating (2027) - Unmitigated

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	0.11	0.83	1.13	0.01	0.02	0.02
	Architectural Coating	1.28	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	**1.39**	**0.83**	**1.13**	**0.01**	**0.02**	**0.02**
Offsite							
	Worker	0.01	0.01	0.24	0.00	0.05	0.01
	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	**0.01**	**0.01**	**0.24**	**0.00**	**0.05**	**0.01**
TOTAL		***1.40***	***0.84***	***1.37***	***0.01***	***0.07***	***0.03***

3.15. Utility Trenching (2026) - Unmitigated

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	0.17	1.71	2.94	0.01	0.07	0.06
	Onsite truck	0.01	0.02	0.01	0.01	0.15	0.02
	Total	**0.18**	**1.73**	**2.95**	**0.01**	**0.22**	**0.08**
Offsite							
	Worker	0.02	0.02	0.28	0.00	0.07	0.02
	Vendor	0.01	0.14	0.07	0.01	0.04	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.03**	**0.16**	**0.35**	**0.01**	**0.11**	**0.03**
TOTAL		***0.20***	***1.89***	***3.30***	***0.02***	***0.33***	***0.11***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Building and Asphalt Demolition	***1***	***15***	***16***	***0***	***3***	***1***
Site Preparation	***1***	***11***	***12***	***0***	***2***	***1***
Grading and Utility Trenching	***2***	***17***	***19***	***0***	***5***	***2***
Building Construction and Field Installation 2026	***1***	***10***	***13***	***0***	***1***	***0***
Building Construction and Field Installation 2027	***1***	***10***	***13***	***0***	***1***	***0***
Building Construction and Field Installation, Paving, and Architectural Coating	***3***	***16***	***23***	***0***	***1***	***1***
MAX DAILY	**3**	**17**	**23**	**0**	**5**	**2**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Construction LST Worksheet:

3.1. Building and Asphalt Demolition (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	12.90	14.60	0.51	0.47
Demolition	0.00	0.00	1.25	0.19
Onsite truck	0.02	0.01	0.61	0.06
Total	**12.92**	**14.61**	**2.37**	**0.72**

3.3. Site Preparation (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	9.84	10.80	0.42	0.39
Dust From Material Movement	0.00	0.00	0.62	0.07
Onsite truck	0.02	0.01	0.59	0.06
Total	**9.86**	**10.81**	**1.63**	**0.52**

3.5. Grading (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	12.90	14.00	0.58	0.53
Dust From Material Movement	0.00	0.00	2.76	1.34
Onsite truck	0.02	0.01	0.58	0.06
Total	**12.92**	**14.01**	**3.92**	**1.93**

3.7. Building Construction and Field Installation (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	10.10	11.80	0.36	0.33
Onsite truck	0.00	0.00	0.00	0.00
Total	**10.10**	**11.80**	**0.36**	**0.33**

3.9. Building Construction and Field Installation (2027) - Unmitigated

	NOx	CO	PM10 Total	PM2.5 Total
Onsite				
Off-Road Equipment	9.70	11.70	0.32	0.30
Onsite truck	0.00	0.00	0.00	0.00
Total	**9.70**	**11.70**	**0.32**	**0.30**

3.11. Paving (2027) - Unmitigated

	NOx	CO	PM10 Total	PM2.5 Total
Onsite				
Off-Road Equipment	5.74	8.20	0.23	0.21
Paving	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**5.74**	**8.20**	**0.23**	**0.21**

3.13. Architectural Coating (2027) - Unmitigated

	NOx	CO	PM10 Total	PM2.5 Total
Onsite				
Off-Road Equipment	0.83	1.13	0.02	0.02
Architectural Coating	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**0.83**	**1.13**	**0.02**	**0.02**

3.15. Utility Trenching (2026) - Unmitigated

	NOx	CO	PM10 Total	PM2.5 Total
Onsite				
Off-Road Equipment	1.71	2.94	0.07	0.06
Onsite truck	0.02	0.01	0.15	0.02
Total	**1.73**	**2.95**	**0.22**	**0.08**

	NOx	CO	PM10 Total	PM2.5 Total
Building and Asphalt Demolition	*13*	*15*	*2.37*	*0.72*
2.00 Acre LST	*82*	*842*	*7.00*	*5.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Site Preparation	*10*	*11*	*1.63*	*0.52*
1.94 Acre LST	*80*	*826*	*6.81*	*4.87*
Exceeds LST?	*no*	*no*	*no*	*no*
Grading and Utility Trenching	*15*	*17*	*4.14*	*2.01*
2.00 Acre LST	*82*	*842*	*7.00*	*5.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction and Field Installation 2026	*10*	*12*	*0.36*	*0.33*
≤ 1.00 Acre LST	*57*	*585*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction and Field Installation 2027	*10*	*12*	*0.32*	*0.30*
≤ 1.00 Acre LST	*57*	*585*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction and Field Installation, Paving, and Architectural Coating	*16*	*21*	*0.57*	*0.53*
≤ 1.00 Acre LST	*57*	*585*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*

GHG Emissions Inventory

Proposed Project Buildout

Construction[1]

	$MTCO_2e$
2025	130
2026	203
Total Construction	**333**
30-Year Amortization[2]	**11**

[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]

	$MTCO_2e$/Year[2]	
	Operations	**%**
Mobile	0	0%
Area	0	0%
Energy	1	7%
Water	1	8%
Solid Waste	0	3%
Refrigerants	0	0%
30-Year Construction Amortization	11	82%
	14	100%

[1] CalEEMod, Version 2022.1.

[2] MTCO2e=metric tons of carbon dioxide equivalent.

LST Worksheets

Construction Localized Significance Thresholds: Building and Asphalt 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)
4	2.00	25	82	25	82	2.00

Source Receptor	**South Coastal LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**82**	Tractors	0.5	0.0625	8	3	1.5
CO	**842**	Graders	0.5	0.0625			0
PM10	**7.00**	Dozers	0.5	0.0625	8	1	0.5
PM2.5	**5.00**	Scrapers	1	0.125			0
						Acres	2.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	82	80	87	106	151
	2	82	80	87	106	151
		82	80	87	106	151
CO	2	842	1158	1611	2869	8253
	2	842	1158	1611	2869	8253
		842	1158	1611	2869	8253
PM10	2	7	21	37	70	167
	2	7	21	37	70	167
		7	21	37	70	167
PM2.5	2	5	7	13	30	101
	2	5	7	13	30	101
		5	7	13	30	101

South Coastal LA County

2.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	82	80	87	106	151
CO	842	1158	1611	2869	8253
PM10	7	21	37	70	167
PM2.5	5	7	13	30	101

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
4	2	4	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: 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)
4	1.94	25	82	25	82	2.00

Source Receptor	**South Coastal LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**80**	Tractors	0.5	0.0625	7	1	0.4375
CO	**826**	Graders	0.5	0.0625	8	1	0.5
PM10	**6.81**	Dozers	0.5	0.0625			0
PM2.5	**4.87**	Scrapers	1	0.125	8	1	1
						Acres	1.94

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	57	58	68	90	142
	2	82	80	87	106	151
		80	79	86	105	150
CO	1	585	789	1180	2296	7558
	2	842	1158	1611	2869	8253
		826	1135	1584	2833	8210
PM10	1	4	13	29	61	158
	2	7	21	37	70	167
		7	21	37	69	166
PM2.5	1	3	5	10	26	93
	2	5	7	13	30	101
		5	7	13	30	101

South Coastal LA County

1.94 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	79	86	105	150
CO	826	1135	1584	2833	8210
PM10	7	21	37	69	166
PM2.5	5	7	13	30	101

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
4	1	4	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Grading and Utility Trenching

		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)
4	2.00	25	82	25	82	2.00

Source Receptor	**South Coastal LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**82**	Tractors	0.5	0.0625	7.3	3	1.4
CO	**842**	Graders	0.5	0.0625	8	1	0.5
PM10	**7.00**	Dozers	0.5	0.0625	8	1	0.5
PM2.5	**5.00**	Scrapers	1	0.125			0
						Acres	2.38

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	82	80	87	106	151
	2	82	80	87	106	151
		82	80	87	106	151
CO	2	842	1158	1611	2869	8253
	2	842	1158	1611	2869	8253
		842	1158	1611	2869	8253
PM10	2	7	21	37	70	167
	2	7	21	37	70	167
		7	21	37	70	167
PM2.5	2	5	7	13	30	101
	2	5	7	13	30	101
		5	7	13	30	101

South Coastal LA County

2.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	82	80	87	106	151
CO	842	1158	1611	2869	8253
PM10	7	21	37	70	167
PM2.5	5	7	13	30	101

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
4	2	4	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction and Field Installation

		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)
4	0.38	25	82	25	82	2.00

Source Receptor	**South Coastal LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**57**	Tractors	0.5	0.0625	6	1	0.375
CO	**585**	Graders	0.5	0.0625			0
PM10	**4.00**	Dozers	0.5	0.0625			0
PM2.5	**3.00**	Scrapers	1	0.125			0
						Acres	0.38

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	57	58	68	90	142
	1	57	58	68	90	142
		57	58	68	90	142
CO	1	585	789	1180	2296	7558
	1	585	789	1180	2296	7558
		585	789	1180	2296	7558
PM10	1	4	13	29	61	158
	1	4	13	29	61	158
		4	13	29	61	158
PM2.5	1	3	5	10	26	93
	1	3	5	10	26	93
		3	5	10	26	93

South Coastal LA County

0.38 Acres

	25	**50**	**100**	**200**	**500**
NOx	57	58	68	90	142
CO	585	789	1180	2296	7558
PM10	4	13	29	61	158
PM2.5	3	5	10	26	93

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
4	1	4	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction and Field Installation, Paving, and Architectural Coating

		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)
4	0.88	25	82	25	82	2.00

Source Receptor	**South Coastal LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25						
NOx	**57**	Tractors	0.5	0.0625	7	2	0.875
CO	**585**	Graders	0.5	0.0625			0
PM10	**4.00**	Dozers	0.5	0.0625			0
PM2.5	**3.00**	Scrapers	1	0.125			0
						Acres	0.88

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	57	58	68	90	142
	1	57	58	68	90	142
		57	58	68	90	142
CO	1	585	789	1180	2296	7558
	1	585	789	1180	2296	7558
		585	789	1180	2296	7558
PM10	1	4	13	29	61	158
	1	4	13	29	61	158
		4	13	29	61	158
PM2.5	1	3	5	10	26	93
	1	3	5	10	26	93
		3	5	10	26	93

South Coastal LA County

0.88 Acres

	25	**50**	**100**	**200**	**500**
NOx	57	58	68	90	142
CO	585	789	1180	2296	7558
PM10	4	13	29	61	158
PM2.5	3	5	10	26	93

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
4	1	4	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Appendix B Noise Modeling Appendix

NOISE FUNDAMENTALS

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.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/01/2025
Case Description: LBSD-24.0 Building and Asphalt Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

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
Front End Loader	No	40		79.1	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) 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
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
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
Total	89.6	83.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/01/2025
Case Description: LBSD-24.0 Site Preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		50.0	0.0
Scraper	No	40		83.6	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
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
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	85.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/01/2025
Case Description: LBSD-24.0 Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		50.0	0.0
Backhoe	No	40		77.6	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
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
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
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	85.0	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

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/01/2025
Case Description: LBSD-24.0 Utility Trenching

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0
Backhoe	No	40		77.6	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
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
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	84.0	81.9	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: 07/01/2025
Case Description: LBSD-24.0 Building Construction and Field Installation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

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

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
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: 07/01/2025
Case Description: LBSD-24.0 Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

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
Drum Mixer	No	50		80.0	50.0	0.0
Roller	No	20		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
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
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
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: 07/01/2025
Case Description: LBSD-24.0 Architectural Coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Receptor at 50 ft	Residential	70.0	65.0	60.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	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
Compressor (air)	77.7	73.7	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	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LBSD-24.0 - Construction Noise Modeling Attenuation Calculations

			Levels in dBA Leq		
Phase	**RCNM Reference Noise Level**	**Receptor to Northwest**	**Receptor to West**	**Receptor to South**	**Receptor to East**
Distance in feet	*50*	*270*	*145*	*180*	*250*
Building and Asphalt Demolition	84	69	74	73	70
Site Prep	84	69	75	73	70
Grading	83	69	74	72	69
Distance in feet	*50*	*75*	*45*	*105*	*185*
Utility Trenching	82	78	83	76	71
Building Construction and Field Installation	79	75	80	73	68
Architectural Coating	74	70	75	67	62
Distance in feet	*50*	*80*	*30*	*25*	*150*
Paving	80	76	84	86	70

Attenuation calculated through Inverse Square Law: Lp(R2) = Lp(R1) - 20Log(R2/R1)

LBSD-24.0 - Vibration Damage Attenuation Calculations

Levels, PPV (in/sec)

Distance in feet	**Vibration Reference Level at *25 feet***	**Receptor to North** *65*	**Receptor to South** *15*	**Receptor to East** *135*	**Receptor to West** *30*
Vibratory Roller	0.21	0.050	0.452	0.017	0.160
Hoe Ram	0.089	0.021	0.191	0.007	0.068
Large Bulldozer	0.089	0.021	0.191	0.007	0.068
Loaded Trucks	0.076	0.018	0.164	0.006	0.058
Jackhammer	0.035	0.008	0.075	0.003	0.027
Small Bulldozer	0.003	0.001	0.006	0.000	0.002