

November 2024 | Final Environmental Impact Report
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Irving Middle School Major Modernization Project



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CHAPTER 7

Final EIR Introduction

This Final Environmental Impact Report (Final EIR) for the Irving Middle School Major Modernization Project was prepared pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (California Public Resources Code 21000 et seq.) and in accordance with the CEQA Guidelines. This document, together with the Draft EIR and its technical appendices, comprise the Final EIR. In accordance with Section 15050 of the CEQA Guidelines, the Los Angeles Unified School District (LAUSD or District), as the Lead Agency, has prepared this EIR to provide the public and trustee agencies with information about the potential effects on the local and regional environment associated with implementation of the proposed Project.

7.1 BACKGROUND

Pursuant to Section 15082 of the CEQA Guidelines, the lead agency is required to send a Notice of Preparation (NOP) stating that a Draft EIR will be prepared to the Governor's Office of Land Use and Climate Innovation (formerly the state Office of Planning and Research), responsible and trustee agencies, and federal agencies involved in funding or approving the proposed Project, and County Clerk. The NOP must provide sufficient information for responsible agencies to make a meaningful response. At a minimum, the NOP must include a description of the project, location of the project, and probable environmental effects of the project (CEQA Guidelines Section 15082(a)(1)). Within 30 days after receiving the NOP, responsible and trustee agencies and the Office of Land Use and Climate Innovation shall provide the lead agency with specific detail about the scope and content of the environmental information related to that agency's area of statutory responsibility that must be included in the Draft EIR (CEQA Guidelines Section 15082(b)).

On December 1, 2023, in accordance with Sections 15063 and 15082 of the CEQA Guidelines, LAUSD published a NOP for the Draft EIR and circulated it to government agencies, elected officials, organizations, and persons who may be interested in the proposed Project, including nearby landowners, student parents and/or legal guardians, homeowners, and tenants. The NOP requested comments on the scope of the Draft EIR and asked that those agencies with regulatory authority over any aspect of the proposed Project describe that authority. The 35-day comment period went through January 5, 2024. The NOP provided a general description of the proposed Project, a description of the Project area, and a preliminary list of potential environmental impacts.

On December 6, 2023, in accordance with CEQA Section 21083.9,¹ LAUSD sponsored a public scoping meeting to obtain comments from interested parties on the scope of the Draft EIR. The purpose of the meeting was to present the proposed Project to the public through use of display maps, diagrams, and a presentation describing the proposed Project components and potential environmental impacts. LAUSD staff and members of the local community attended the scoping meeting. Attendees were provided an opportunity to voice comments or concerns regarding potential effects of the proposed Project. The issues addressed by

¹ CEQA Section 21083.9 requires that a lead agency call at least one scoping meeting for a project of statewide, regional, or area wide significance.

participants are summarized and included in the Draft EIR as part of Appendix A. Five comment letters were received in response to the NOP, two comment cards were provided during the public scoping meeting, and a transcript from the public scoping meeting recorded verbal comments. Specific environmental concerns that were raised in the comments received on the NOP are discussed in Table 1.3-1, *Summary of NOP Comments*, of the Draft EIR.

Based on comments received during the scoping period, changes were made to the scope of the Project to reduce and/or avoid environmental effects. CEQA Guidelines Section 15083 encourages early consultation with interested parties to help identify “the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important.” The revised Project Description is detailed in Chapter 2 of the Draft EIR.

The Draft EIR for the Irving MS Major Modernization Project was circulated for public review for 45 days between September 16, 2024, and October 31, 2024. While Section 15087 of the State CEQA Guidelines only requires giving notice by at least one of three prescribed methods, the District elected to use two of the prescribed methods in an effort to notify as wide an audience as possible. A Notice of Availability (NOA) of the Draft EIR was published in the *Los Angeles Daily News* and *La Opinión* and was also posted at the Project site. The NOA was distributed to responsible and trustee agencies, regulatory agencies, and other interested parties and stakeholders via certified mail. In addition, the NOA was distributed to all students and staff at Irving MS, and was distributed to all student guardians via direct mail.

The Draft EIR, Preliminary Environmental Assessment - Equivalent (PEA-E), and Soil Removal Plan (SRP) were made available for public review at the following locations:

- LAUSD Office of Environmental Health and Safety - 333 South Beaudry Avenue, 21st Los Angeles, CA 90017
- Irving Middle School Main Office – 3010 Estara Avenue, Los Angeles, California 90065

An electronic copy of the Draft EIR was also posted on the LAUSD OEHS website (<http://achieve.lausd.net/CEQA>) and the California State Clearinghouse website (<https://ceqanet.opr.ca.gov>).

A public meeting to solicit comments on the Draft EIR was held on October 17, 2024, for public comment. The meeting was transcribed, and the public comments are summarized as part of the Final EIR (Chapter 9, Response to Comments). In addition, LAUSD received three comment letters during the public review period from individuals.

7.2 Use of the Final EIR and the CEQA Process

The Final EIR is an informational document prepared by the Lead Agency that must be considered by decision-makers before approving or denying the proposed Project.

Section 15132 of the CEQA Guidelines specifies the Final EIR shall consist of five elements:

- a) The Draft EIR or a revision of the draft (provided under a separate cover).
- b) Comments and recommendations received on the Draft EIR either verbatim or in summary.

- c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
- e) Any other information added by the Lead Agency.

Section 15004 of the CEQA Guidelines states that before the approval of any project subject to CEQA,² the Lead Agency must consider the final environmental document, which in this case is the Final EIR. This Final EIR has been prepared pursuant to the requirements of CEQA. This Final EIR incorporates comments from public agencies and the general public, and contains appropriate responses by the lead agency to those comments.

The Final EIR also allows agencies and the public an opportunity to review revisions to the Draft EIR, the response to comments, and other components of the EIR, including revisions and/or corrections to the Draft EIR, prior to approval of the proposed Project. Consistent with CEQA (Public Resource Code Section 21092.5), responses to agency comments are being forwarded to each commenting agency 10 days prior to certification of the Final EIR. The Final EIR is available for public review on the LAUSD Office of Environmental Health & Safety website (<http://achieve.lausd.net/CEQA>).

The Final EIR serves as the environmental document to support approval of the proposed Project, either in whole or in part, if the proposed Project is approved. After completing the Final EIR and before approving the proposed Project, the lead agency must make the following three certifications, as required by Section 15090 of the CEQA Guidelines:

- 1) The Final EIR has been completed in compliance with CEQA;
- 2) The Final EIR was presented to the decision-making body of the lead agency, and that the decision-making body reviewed and considered the information in the Final EIR prior to approving the proposed Project; and
- 3) The Final EIR reflects the lead agency's independent judgment and analysis.

As required by Section 15091(a) of the CEQA Guidelines, no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those significant effects, accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record.

² The word "approval" is defined by Section 15352 of the CEQA Guidelines to mean "the decision by a public agency which commits the agency to a definite course of action in regard to a project intended to be carried out by any person..." In addition, the CEQA Guidelines state that "with private projects, approval occurs upon the earliest commitment to issue or the issuance by the public agency of a discretionary contract, grant, subsidy, loan, or other form of financial assistance, lease, permit, license, certificate, or other entitlement for use of the project."

The possible findings are:

- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- 2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- 3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

These certifications and the Findings of Fact will be included in package of documents to be considered by the LAUSD Board of Education. The proposed Project would result in significant and unavoidable cultural resources impacts; therefore, a Statement of Overriding Considerations is required per Section 15093 of the CEQA Guidelines and will also be included in the Board of Education materials.

7.3 Method of Organization

This Final EIR for the proposed Project contains information in response to concerns raised by written comments sent to LAUSD. The Final EIR is organized into the following chapters:

- Chapter 7, *Final EIR Introduction*, consists of a summary of the background of the proposed Project, information about the certification of the Final EIR, and a brief discussion of the intended uses of the Final EIR.
- Chapter 8, *Errata*, discusses the revisions to the proposed Project and Draft EIR, including text changes and/or additions proposed by the LAUSD, as lead agency, and text changes and/or additions in response to comments received on the Draft EIR. Chapter 8 does not include any changes to the appendices.
- Chapter 9, *Response to Comments*, contains a matrix of agencies and organizations that submitted written comments on the Draft EIR. This matrix identifies the issue areas addressed by those comments. Chapter 9 also includes a copy of each written comment letter, and a written response to each copy.
- Chapter 10, *Mitigation Monitoring and Reporting Program*, includes the Mitigation Monitoring and Reporting Program (MMRP) prepared in compliance with the requirements of Section 21081.6 of the California Public Resources Code and Section 15091(d) and 15097 of the CEQA Guidelines.

7.4 Environmental Impacts and Mitigation Measures

A detailed discussion of existing environmental conditions, environmental impacts, and recommended mitigation measures is included in Chapter 3, *Environmental Setting, Impacts and Mitigation Measures* of the Draft EIR. Project impacts, recommended mitigation measures, and level and significance after mitigation are summarized in **Table ES-1**, which is included in Chapter ES, *Executive Summary*, of the Draft EIR.

CHAPTER 8

Errata

This section contains revisions to the Draft EIR. The following corrections and changes are made to the Draft EIR, and are incorporated herein as part of the Final EIR.

The changes below were made to the Draft EIR in response to errors identified during preparation of Chapter 10, *Mitigation Monitoring and Reporting Program*.

The revisions that follow were made to the text of the Draft EIR. Amended text is identified by page number. Additions to the Draft EIR are shown with underlining, and text removed from the Draft EIR is shown with ~~strikethrough~~.

The following revisions to the text of the Draft EIR are made:

Executive Summary of the Draft EIR

Page ES-12 has been revised to clarify the ability of Alternative 2 to meet the project objectives:

Alternative 2 would be the environmentally superior alternative as it would result in the greatest reduction in air quality, cultural resources, and greenhouse gas emissions impacts, compared to the proposed Project. With implementation of Alternative 2, the significant and unavoidable impacts to cultural resources associated with development of the proposed Project would be reduced to less than significant with the retention of the Administration Building. However, Alternative 2 would be inconsistent with Objectives #1 and #2, which would not be entirely met (see Table 5-3).

Section 2.0 Project Description, of the Draft EIR

Page 2-20 of the Draft EIR has been revised to specify that the landscaped areas would include a buffer along Marguerite Street:

Landscaped and hardscaped areas would be designed to be located directly above the fault as only nonstructural construction is permitted in those areas. The proposed Project would include new landscaped areas that contribute to meeting the District Board's goal of 30 percent landscaped areas. These landscaped areas would include a landscaped buffer within the southeastern portion of the Campus along Marguerite Street between Estara Avenue and W Avenue 32 that creates a visual buffer to the Campus and helps improve air quality and shield particulate matter (PM) from the nearby SR 2 freeway. The existing Campus is located within 500 feet of the SR 2 freeway; installing tall, thick, and full coverage vegetative elements (screening shrubs and trees such as pine/coniferous trees and evergreen thick bushes/hedges) along the edge of the freeway would lessen the existing effects of the freeway on the health of staff and children at Irving MS by reducing pollution downwind of SR 2 with dispersion and absorption by foliage. Complete coverage should be provided from the ground to the top of the canopy, such as with a combination of trees with shrubs beneath, and the vegetative barrier

should have an adequate thickness to reduce porosity and avoid gaps for maximum pollutant concentration reduction. The Project design would also consider the feasibility of installation of a vegetative buffer within the Campus property along W Avenue 32, which is also located within 500 feet of the freeway. The proposed Project would increase pervious ground cover by converting existing impervious areas (such as the existing Administration, Classroom Building, Homemaking Building, hardscaped parking areas, and hardscaped recreation areas).

Section 3.1 Air Quality, of the Draft EIR

The text has been revised on multiple pages for consistency with the 2023 Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects, because although SC-AQ-1 requires preparation of a Health Risk Assessment (HRA) for *new campus locations* that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions, including freeways. Specifically, SC-AQ-1 requires air dispersion modeling to make a health risk determination for freeway and other busy traffic corridors within 500 feet. Therefore, a clarification has been made to include SC-AQ-1 as an applicable standard condition for the proposed Project due to the Project's inclusion of new classrooms and outdoor play areas. SC-AQ-1 was already listed as an SC in Draft EIR Table 3.1-6, *Air Quality Standard Conditions of Approval*.

The text has also been revised on multiple pages to include a landscape buffer in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge, which would create a visual barrier to the campus and further reduce exposure to external operation emissions originating from the SR-2 Freeway.

Page 3.1-26 of the Draft EIR has been revised:

No new vehicle trips would be generated, and there would be no increase in mobile source emissions. Implementation of regulatory compliance measures such as Rule 403 (Fugitive Dust) and Rule 1113 from the SCAQMD would help keep emissions below SCAQMD thresholds. A landscape buffer would be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge, which will create a visual barrier to the campus and further reduce exposure to external operation emissions originating from the State Route (SR) 2 Freeway.

Page 3.1-29 of the Draft EIR has been revised:

Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as MOB-08 and MOB-10, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Project would not conflict with implementation of these strategies as the construction contractor hired would comply with the current requirements for fleet emissions. Additionally, the Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403 and implement SC-AQ-1, SC-AQ-2, SC-AQ-3, and SC-AQ-4. SC-AQ-1 would obligate preparation of a health risk assessment (HRA). If the HRA does not

find that health risks are below criteria thresholds, it may make recommendations that would reduce exposure impacts, such as upgraded air filtration systems for indoor areas or limitations on use for outdoor areas. SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications.

On page 3.1-34:

As shown in Table 3.1-8, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the SCAQMD numeric thresholds. These calculations include compliance with appropriate dust control measures mandated to be implemented during each phase development, as required under SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-1 SC-AQ-2 through SC-AQ-4. As previously discussed, SC-AQ-1 would obligate preparation of an HRA. SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications.

On page 3.1-35:

Construction emissions from the proposed Project are not projected to exceed the SCAQMD regional significance impact thresholds and, therefore, are not expected to cause, or substantially contribute to, ground level concentrations that exceed the NAAQS or CAAQS. Furthermore, the District would implement SC-AQ-1, SC-AQ-2, SC-AQ-3, and SC-AQ-4 to ensure that construction emissions would minimize off-site impacts.

On page 3.1-36:

The emissions from operation of the proposed Project would be comparable to the existing condition since the proposed Project is a modernization initiative that would not change the Project site's land use nor result in new vehicle trips and, thus, would not increase mobile emissions. As discussed in Section 3.1.4, a landscape buffer would be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge, which will create a visual barrier to the campus and further reduce exposure to external operation emissions originating from the SR-2 Freeway.

On page 3.1-38:

The proposed Project includes the modernization and upgrade of facilities on the Irving MS Campus. The 2023 SPEIR states that modernization projects would not cause a change in toxic air contaminant exposure levels. As discussed, a landscape buffer will be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge, which will create a visual barrier to the campus and further reduce exposure to external operation emissions originating from the SR-2 Freeway.

Section 3.2 Cultural Resources, of the Draft EIR

On page 3.2-17: Table 3.2-2, *Cultural Resources Standard Conditions of Approval*, has been revised.

“SC-CUL-11” has been replaced with “SC-GEO-2” for consistency with the 2023 Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects.

Applicable SCs	Description
<p><u>SC-GEO-2</u> <u>SC-CUL-14</u></p>	<p>LAUSD shall retain a Paleontological Monitor to oversee specific ground-disturbing activities as determined by the scope of work and final grading plan. The Monitor shall provide the construction crew(s) with a brief summary of the sensitivity, the rationale behind the need for protection of these resources, and information on the initial identification of paleontological resources.</p> <p>If paleontological resources are uncovered, the Construction Contractor shall halt construction activities within a 30 foot radius of the find and shall notify the LAUSD.</p> <ul style="list-style-type: none"> • Ground-disturbing activities shall not continue until the discovery has been assessed by the Paleontologist. • The paleontologist shall have the authority to halt construction activities to allow a reasonable amount of time to identify potential resources. • Significant resources found shall be curated as determined necessary by the Paleontologist.

Section 3.7 Transportation and Traffic, of the Draft EIR

On page 3.7-4: Table 3.7-2, *Transportation and Traffic Standard Conditions of Approval*, is revised to include the text description for SC-T-3 and SC-T-4 instead of “Implementation of SC-T-3.” and “Implementation of SC-T-4.”, respectively:

Applicable SCs	Description
SC-T-3	<p>Implementation of SC-T-3. <u>LAUSD shall coordinate with the local City or County jurisdiction and agree on the following:</u></p> <ul style="list-style-type: none"> • <u>Compliance with the local jurisdiction’s design guidelines for access, parking, and circulation in the vicinity of the project.</u> • <u>Scope of analysis and methodology for the traffic and pedestrian study, including trip generation rates, trip distribution, number and location of intersections to be studied, and traffic impact thresholds.</u> • <u>Implementation of SR2S, traffic control and pedestrian safety devices.</u> • <u>Fair share contribution and/or other mitigation measures for potential traffic impacts.</u> • <u>Traffic and pedestrian safety impact studies shall address local traffic and congestion during morning arrival times, and before and after evening stadium events.</u> • <u>Traffic study will use the latest version of Institute of Transportation Engineer’s (ITE) Trip Generation manual (or comparable guidelines) to determine trip generation rates (parent vehicles, school buses, staff/faculty vehicles, and delivery vehicles) based on the size of the school facility and the specific school type (e.g., Magnet, Charter, etc.), unless otherwise required by local jurisdiction.</u> • <u>Loading zones will be analyzed to determine the adequacy as pick-up and drop-off points. Recommendations will be developed in consultation with the local jurisdiction for curb loading bays or curb parking restrictions to accommodate loading needs and will control double parking and across-the-street loading.</u>
SC-T-4	<p>Implementation of SC-T-4. <u>LAUSD shall require its Construction Contractors to submit a Construction Worksite Traffic Control Plan to OEHS for review prior to construction. The plan will show the location of any haul routes, hours of operation, protective devices, warning signs, access to abutting properties and applicable transportation related safety measures as required by local and State agencies. LAUSD shall encourage its Construction Contractor to limit construction-related trucks to off-peak commute periods.</u></p>

Section 5.8, Comparative Summary of the Alternatives, of the Draft EIR

On page 5-17, Table 5-3, *Consistency with Project Objectives*, is revised:

**TABLE 5-3
CONSISTENCY WITH PROJECT OBJECTIVES**

Objective	Proposed Project	Alternative 1: No Project/ No Build	Alternative 2: Retain Entire Existing Administration Building
#1: Buildings meeting AB 300 criteria for seismic evaluation may be addressed, to the extent feasible, with a focus on those determined to have a high seismic vulnerability, through retrofit, removal, or seismic modernization, which will be determined based on an assessment of the seismic vulnerability of the building(s), the historic context of the building/site, actual or potential impact to the learning environment, site layout, and the approach that best ensures compliance with Division of the State Architect (DSA) requirements.	The proposed Project would retrofit or replace two buildings meeting AB 300 criteria for seismic evaluation: Administration Building and Auditorium.	Inconsistent: Seismic vulnerability of the Administration Building and Auditorium would not be addressed.	Partially Consistent: Seismic vulnerability of the Administration Building would not be addressed. However, the Auditorium, and other existing classrooms within 50 feet of the trace of an active fault would be addressed. Inconsistent: This alternative would be less consistent with Section CAC 4-317(e) of the California Building Code than the proposed Project, which indicates that no school building shall be constructed, rehabilitated (i.e., seismic retrofit), reconstructed, or relocated within 50 feet of the trace of an active fault. The Administration Building retrofit would be very expensive and still located within 50 feet of the trace of an active fault.
#2: The buildings, grounds, and site infrastructure that have significant/severe physical conditions that already do or are highly likely in the near future to pose a health and safety risk, or negatively impact a school's ability to deliver the instructional program and/or operate may be addressed by repair or replacement.	The proposed Project would reduce health and safety risks with building replacement and retrofit.	Inconsistent: Seismic vulnerability of the Administration Building, Auditorium, and other existing classrooms within 50 feet of the trace of an active fault would not be addressed.	Partially Consistent: Seismic vulnerability of the Administration Building would not be addressed. However, the Auditorium, and other existing classrooms within 50 feet of the trace of an active fault would be addressed.
#3: The District reliance on relocatable buildings, especially for K-12 instruction, should be reduced.	The proposed Project would replace 11 relocatable buildings with permanent classroom buildings.	Inconsistent: Five existing relocatable buildings for K-12 instruction would be retained.	Consistent: Five relocatable buildings would be removed, replaced with retrofitted Administration Building classrooms.
#4: Necessary and prioritized upgrades must be made throughout the school site in order to comply with the program accessibility requirements of the Americans with Disabilities Act (ADA) Title II Regulations, and the District's Self-Evaluation and Transition Plan under Title II of the ADA.	The proposed Project would include necessary ADA upgrades.	Inconsistent: No ADA upgrades would be made.	Consistent: ADA upgrades would be made.
#5: The exterior conditions of the school site will be enhanced around new buildings and/or areas impacted by construction to improve the visual appearance including landscape and hardscape.	The proposed Project would include landscape and hardscape enhancements.	Inconsistent: No enhancement of exterior conditions of the school site to improve the visual appearance of the landscape and hardscape would be made.	Consistent: Landscape and hardscape enhancements would be made.
#6: Outdoor learning environments will be developed where the site layout and project planning provide the opportunity.	The proposed project would provide additional outdoor learning and gathering spaces for its students.	Inconsistent: No outdoor learning environments would be developed.	Consistent: Outdoor learning environments would be developed.

Section 5.10, Environmentally Superior Alternative, of the Draft EIR

Page 5-19 is revised as follows:

As such, Alternative 2 would be the environmentally superior alternative as it would result in the greatest reduction in air quality, cultural resources, and greenhouse gas emissions impacts, compared to the proposed Project. Under Alternative 2, cultural resources impacts would be reduced to a less than significant level, but the alternative would be only partially consistent ~~inconsistent~~ with Objectives #1 and #2, which would not be entirely met (see Table 5-3). The intent of the objectives is to increase safety for staff and students by providing upgraded buildings and to reduce the reliance on portable buildings. Further, the objectives aim to provide larger classroom spaces that could accommodate modern and efficient technology, which would not be entirely met with Alternative 2. Therefore, this alternative would meet some of the objectives but not to the same degree as the proposed Project.

CHAPTER 9

Comment Letters and Responses to Comments

This Draft EIR for the Irving MS Major Modernization Project was circulated for public review for 45 days (September 16, 2024, through October 31, 2024). LAUSD received three comment letters from individuals and seven verbal/virtual comments during an October 17, 2024, community meeting. Public comments have been summarized, and responses are included in this chapter as Comment 1, below. The comment letters have been bracketed and assigned comment numbers and are presented in the order listed in the table below (see **Table 9-1, List of Comment Letters Received**). Each comment that requires a response within the letters has been assigned a number. For example, the first comment in Letter No. 2 would be Comment 2-1, and the first comment in Letter No. 3 would be Comment 3-1. The responses to each comment are then correspondingly numbered (i.e., Response 2-1 and Response 3-1). Each comment has been recopied verbatim, or as close as possible to verbatim, from the original comment submitted.

**TABLE 9-1
LIST OF COMMENT LETTERS RECEIVED**

Letter Number	Commenter	Date of Letter
Federal, State, and Local Agencies		
N/A		
Organizations and Individuals		
1	Community Meeting Comments - Individuals	October 17, 2024
2	Peter Benoit	October 17, 2024
3	Tricia O'Connell	October 18, 2024
4	Tricia O'Connell	October 31, 2024

The comment letters are provided below.

Comment No. 1

October 17, 2024, Community Meeting – Summary of Individual Verbal Comments and LAUSD Responses

Comment No. 1-1

Commenter #1 Sarah Bartlett

Commenter prefers alternative in the Draft EIR that would rehabilitate the Administration Building instead of demolishing it. Commenter believes that a Rehabilitate Administration Building Alternative is the environmentally superior alternative as it would preserve the historically significant administration building and reduce waste from demolition. Rehabilitation would cost less than the proposed Project. Also, commenter notes that the existing New Classroom Building would continue to partially remain in the fault zone.

Response to Comment No. 1-1

An alternative that would involve seismically retrofitting the Administration Building was considered but rejected for further analysis (see Draft EIR Section 5.3, *Alternatives Not Further Evaluated in This EIR*), as it would not meet statutory requirements set by the Division of State Architect (DSA). A seismic retrofit of the Administration Building is allowable; however, it must comply with California Administrative Code Section 4-309(c), which indicates the cost of the seismic retrofit, and any other building improvements required, must be less than 50 percent of the replacement value of the existing building. When a building is not in a fault hazard zone, the costs associated with the seismic work can be excluded from the building replacement value; however, this does not apply as the Administration Building is situated on a fault.

Based on preliminary estimates, LAUSD anticipates the cost of the seismic retrofit alone, excluding other required improvements, to exceed the 50 percent replacement value of the building, making this option unviable. More information on this statutory requirement can be found in Section 5.3 of the Draft EIR. A detailed breakdown of the cost estimate for a seismic retrofit can be found in Appendix 9, *Alternatives Analysis Support Documents*, in the Draft EIR Technical Appendices.

Existing buildings identified on a fault are not required to be removed unless the building is planned to be altered or rehabilitated per the California Administrative Code. The existing New Classroom Building, which was constructed in 1990 (see Draft EIR Table 2-2, *Characteristics of Existing Buildings*), has not been identified for seismic evaluation performed on school buildings identified to be the most seismically vulnerable) based on Assembly Bill 300 criteria and LAUSD's higher standards. The primary reason the Administration Building cannot remain within the fault zone is due to the improvements required to mitigate the identified seismic deficiencies of the building. Per California Administrative Code and the Division of the State Architect, the building cannot be made compliant while still being situated on the fault. All other existing buildings that were found to be located on the fault, or within the fault zone, were inspected by structural engineers and deemed to be safe for occupancy. Existing buildings identified on a fault are not required to be removed unless the building is planned to be altered or rehabilitated per the California Administrative Code.

Comment No. 1-2

Commenter #2 (Zoom - Emily Bills)

Commenter inquired if the building would be demolished while the students are in school. Their primary concern is the release of lead dust from paint and tile, which cannot be completely controlled with watering. Commenter is concerned that lead dust is a fine dust and it is a neurotoxin that will release into the atmosphere, children will breathe it in if they are on campus, and it will then settle around the grounds and need to be remediated. Commenter inquired regarding the lead remediation plan for the broader campus post-demolition and how demolition can happen when students are not on campus, ideally over a vacation or summer break.

Response to Comment No. 1-2

LAUSD anticipates construction to occur year-round; however, the work will be completed in phases to minimize the impact to students, staff and ongoing school operations. LAUSD will try to take advantage of any opportunity to conduct major demolition when school is on break, but there are standard conditions of approval (SCs) and mitigation measures (MMs) that will be in place such as SC-AQ-2, SC-AQ-3, SC-AQ-4, MM-HAZ-1, MM-HAZ-2, MM-HAZ-3, MM-HAZ-4, and SC-HAZ-4, should demolition need to occur while school is in session. In particular, MM-HAZ-1 (Soil Management Plan) is required.

Hazards and Hazardous Materials were analyzed in the Draft EIR, with the following conclusions:

- Lead-based paints (LBP) and asbestos-containing materials (ACM) may occur in pre-1970s buildings. With the exception of newer portable buildings on the Project site, it is likely that the paint on the buildings contains, or formerly contained, elevated lead concentrations. Lead was identified as a chemical of concern (elevated levels) in the Phase I Environmental Site Assessment (ESA) at 11 of 63 locations sampled (see Draft EIR Appendix 1-A) and in the Preliminary Environmental Assessment Equivalent (PEA-E) at 10/51 locations sampled (see Draft EIR Appendix 1-F), at a level below the respective screening level or the 95 percent upper confidence limit (UCL). The 95 percent UCL for lead is 53.61 milligrams per kilogram (mg/kg), which is below LAUSD's screening level of 80 mg/kg. The soil analytical results indicate that lead and arsenic were detected in all of the original 0.5-foot-deep soil samples that were analyzed in the Phase I ESA. Deeper samples were analyzed in these locations and results were below screening levels. Lead was detected above the trigger level value of 50 mg/kg in 11 of the original samples.
- The human health risk is typical of similar school Site operations in the State of California for these constituents. None of the soil was determined to be above hazardous levels. Although lead was detected above the California Department of Toxic Substances Control (DTSC)-modified screening level of 80 mg/kg (screening level for use in human health risk assessments) in four original soil samples (B5 [near western edge of Administration Building], B11 [near eastern edge of Administration Building], B32 [near southern edge of Homemaking Building], and B63 [parking lot north of Administration Building]), upon analysis, the deeper samples at these locations at 2.5 feet below ground surface (bgs) for B5, B11, B32, and B63 did not show any lead levels above 80 mg/kg. Subsequent soluble threshold limit concentration (STLC) and toxicity characteristic leaching procedure (TCLP) results indicated non-hazardous levels of lead.

- Where LBP and ACM abatement is required, before demolition, an LBP & ACM survey is conducted to know where all LBP and ACM are located within Campus. Then, before demolition, an LBP and ACM abatement plan is prepared that is used to guide the removal process. Within the abatement plan, LBP and ACM removals are normally done under negative pressure conditions (to ensure no cross-contamination with outside area).
- During demolition and disposal of asbestos-containing structures, there is a potential for hazardous particles to enter the air and soil. Any demolition activities that include asbestos removal shall be completed in compliance with all regulations set forth in SCAQMD Rule 1403. These include surveying, notifications, ACM removal procedures and time schedules, as well as the handling, clean-up, storage, disposal, and landfilling of ACM. Rule 1403 also requires all operators to maintain records including waste shipment records, appropriate warning labels, signs, and markings.¹ MM-HAZ-3 provides additional measures such as application of water, wind speed and wind direction monitoring, and airborne particulate monitoring to prevent hazardous particles from asbestos or impacted soils entering air space as a result of construction activities. Finally, site compliance inspections of the working areas shall be conducted by the Environmental Consultant or designated site manager to ensure ongoing compliance with regulations and mitigation measures as outlined in MM-HAZ-4.
- The proposed Project would result in significant impacts regarding hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. During the construction phase, it is possible school attendants could come in contact with emissions of polychlorinated biphenyl (PCBs), asbestos, paints, petroleum products, or fugitive dust from soil (see Draft EIR Appendices 1-A and 1-F). However, SC-HAZ-4 would ensure that the following guidelines are followed: District Specification Section 01 4524, Environmental Import / Export Materials Testing; Soil Removal Plan; California Air Resources Board Rule 1466 Guidelines and Procedures to Address PCBs in Building Materials, particularly applicable to buildings that were constructed or remodeled between 1959 and 1979; lead and asbestos abatement requirements identified by the FETU in the Phase I/Phase II; or abatement plan(s). Per SC-HAZ-4, the Construction Contractor shall comply with OEHS Site Assessment practices and requirements, which includes lead and asbestos abatement requirements identified in the Facilities Environmental Technical Unit (FETU) in the Phase I/Phase II or abatement plan(s). Mitigation Measures MM-HAZ-1 through MM-HAZ-4 would reduce pre-construction and construction hazard impacts.
- MM HAZ-1 would reduce accident conditions via detailed outline of potential contaminants of concerns and subsequent measures to completely manage soil onsite including but not limited to characterization, excavation and handling, staging, transportation, contingency plans, as well as sampling and reporting requirements. MM-HAZ-2 details specific requirements and action levels for monitoring for volatile organic compounds (VOCs) during underground storage tank (UST) removal, while MM-HAZ-3 outlines best available control measures (BACMs) for dust and particulate management and outlines quantifiable monitoring requirements to be maintained from pre-construction to final completion. MM-HAZ-4 would ensure all regulations and mitigation measures

¹ South Coast Air Quality Management District. October 2007. Rule 1403. Asbestos Emissions from Demolition/Renovation activities. <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1403.pdf>

are being met. Finally, compliance with LAUSD OEHS Environmental Disposal Procedures for Hazardous Waste and Universal Waste² when disposing of hazardous materials currently stored on the school grounds would reduce the impacts related to emitting hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school to be a less than significant level.

Comment No. 1-3

Commenter #3 Trisha O'Connell

Commenter is concerned about the school's proximity to the freeway (SR 2) and the air quality impacts of the Campus proximity (within 300 meters) to the freeway on the students, particularly impact of fine particulate matter (PM_{2.5}), brake dust, and diesel exhaust. Commenter's son has developed asthma since attending Irving MS. Commenter would like to see the design incorporate a landscaped buffer around the campus, particularly along the Margerite Street edge.

Also, commenter inquired why the existing New Classroom Building can partially remain in the fault zone, while the Administration Building cannot.

Response to Comment No. 1-3

A landscape buffer will be included in the design along the Campus boundaries impacted by the Project, including the Marguerite Street property edge. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR).

Air quality was analyzed in the Draft EIR, with the following conclusions:

- The proposed Project would not conflict with, or obstruct, implementation of the applicable air quality plan.
- The proposed Project would not 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.

As shown in Draft EIR Table 3.1-8, *Maximum Daily Unmitigated Regional Construction Emissions (Pounds Per Day)*, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the South Coast Air Quality Management District (SCAQMD) numeric thresholds. These calculations include compliance with appropriate dust control measures mandated to be implemented during each phase development, as required under SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-2 through SC-AQ-4. As previously discussed, SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications. SC-AQ-3 would implement methods for reducing onsite dust emissions during soil removal. SC-AQ-4 is intended to reduce construction exhaust and fugitive dusts emissions with a number of features including utilizing off-road

² Los Angeles Unified School District. June 2020. Los Angeles Unified School District Reference Guide. Disposal Procedures for Hazardous Waste and Universal Waste. REF-4149.2
<https://www.lausd.org/cms/lib/CA0100043/Centricity/Domain/135/REF-4149.2%20Hazardous%20Waste%20.pdf>

construction equipment that is compliant with Tier 3 engine standards (at a minimum) and applying soil stabilizers. SC-AQ-4 requires that Tier 3- or Tier 4-compliant off-road construction equipment be used during construction. LAUSD would require that all equipment meet Tier 4 standards when feasible and equipment is available. Where Tier 4 equipment is not feasible or available for use on the proposed Project, Tier 3-compliant equipment will be required. As the possibility of Tier 3 equipment exists, construction emissions were estimated assuming Tier 3 equipment as a worst-case emissions estimate. Therefore, impacts would be less than significant with respect to regional emissions from construction activities. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

As shown in Draft EIR Table 3.1-9, *Maximum Unmitigated Localized Construction Emissions (Pounds per Day)*, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Application of SC-AQ-2, SC-AQ-3, and SC-AQ-4 would reduce localized air pollutant emissions construction equipment exhaust combined with fugitive dust particulate matter emissions generated. Therefore, impacts would be less than significant during construction with respect to localized emissions from construction activities.

As shown in Draft EIR Table 3.1-10, *Maximum Unmitigated Localized Operations Emissions (Pounds per Day)*, unmitigated maximum localized operation emissions exposure to the nearest sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM_{2.5}, and PM₁₀.

SC-AQ-1 requires preparation of an HRA for new campus locations that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions (e.g., permitted and non-permitted stationary sources, freeways and other busy traffic corridors, railyards, and large agricultural operations), Under SC-AQ-1, for freeways and other busy traffic corridors within 500 feet, air dispersion modeling must be used to make the health risk determination. If the HRA does not find that health risks are below criteria thresholds, it may make recommendations that would reduce exposure impacts, such as upgraded air filtration systems for indoor areas or limitations on use for outdoor areas. A clarification has been made to Section 3.1, *Air Quality*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include SC-AQ-1 as an applicable standard condition for the proposed Project due to the Project's inclusion of new classrooms and outdoor play areas. The primary reason the Administration Building cannot remain within the fault zone is due to the improvements required to mitigate the identified seismic deficiencies of the building. Per California Administrative Code and the Division of the State Architect, the building cannot be made compliant while still being situated on the fault. All other existing buildings that were found to be located on the fault, or within the fault zone, were inspected by structural engineers and deemed to be safe for occupancy. Existing buildings identified on a fault are not required to be removed unless the building is planned to be altered or rehabilitated per the California Administrative Code.

Comment No. 1-4

Commenter #4 (Zoom - Peter)

Commenter inquires why the 1990s New Classroom Building, Physical Education Building, and three other grey small structures inside the fault and setback zone would remain if they are in the no-build zone.

Response to Comment No. 1-4

Existing buildings identified on a fault are not required to be removed unless the building is planned to be altered or rehabilitated per Section 4-317(c) of the California Administrative Code and California Education (Cal Ed) Code 17212.5. New buildings and structures are prohibited within 50 feet of an identified earthquake fault (see Draft EIR Appendix 9, *Alternatives Analysis Support Documents*).

All other existing buildings are not planned to be altered or rehabilitated as part of this major modernization project, and were inspected by structural engineers and deemed safe for occupancy.

Comment No. 1-5

Commenter #5 (Zoom)

Commenter inquired why a futsal court is included as part of the project.

Commenter also inquired how many trees will be removed as a result of the proposed Project, what size they are, and whether they will be replaced.

Response to Comment No. 1-5

A futsal court was included in consultation with the principal and physical education (PE) teachers to improve Irving's PE curriculum and provide new PE opportunities for its students.

Regarding trees, the District engaged an arborist to provide a report that identified all existing trees within the school Campus. The goal is to retain existing trees on the Campus unless removal is unavoidable to accommodate the proposed Project, or if the trees are in poor health. Since the Project design is not yet final, specific quantities, types or sizes of trees to be removed are not known at this time. Per SC-BIO-4 and the LAUSD Tree Trimming and Removal Policy,³ the Project is required to provide four replacement trees for every removed "protected" tree, with a minimum box size of 36 inches. Furthermore, as part of the LAUSD goal to increase green/natural spaces and shading throughout the Campus, the overall quantity of trees will increase on the Campus upon completion of the Project.

Comment No. 1-6

Commenter #6 (Zoom – Lena Najarian Kaderali)

Commenter inquired how the buildings needing replacement are deemed safe to occupy by students today and in the interior.

Commenter also inquired whether current Irving MS students will reap any benefits or only experience inconvenience and disruptive learning environments from construction activities.

Response to Comment No. 1-6

Structural engineers have evaluated and inspected the existing buildings planned for removal and have confirmed no visible signs of distress on the exteriors or interiors of the buildings and have deemed them safe

³ Los Angeles Unified School District Office of Environmental Health & Safety. 2023, Tree Trimming & Removal Procedure (Rev. 4/24/2023). https://www.lausd.org/cms/lib/CA01000043/Centricity/Domain/135/LAUSD_Tree_Protection.pdf

for student occupancy. Construction duration is expected to be approximately 3.5 years, and with some of the work expected to occur in phases; students attending Irving MS during this time may get to enjoy some of the Project's completed improvements. For example, as Phase 3 is to construct the new administrative and classroom building, students would be able to use the new building while Phases 4 and 5 are underway.

Prior to the demolition of any existing building, portable buildings will be added to the Campus to accommodate staff and students. School programs would be accommodated throughout construction. Additionally, the on-Campus charter school will vacate their current classrooms, which would be used. LAUSD will ensure that there will be sufficient classrooms and administrative spaces to accommodate the school during construction.

Comment No. 1-7

Commenter #7 (Zoom – Olivia Harrison)

Commenter inquires as to the earliest date (month, year) construction would begin.

Response to Comment No. 1-7

The earliest expected timeframe for construction of the proposed Project is the fourth quarter (October–December) of 2025. This first phase may include the installation of temporary portable buildings (interim housing) to accommodate classroom and administrative needs, underground utility work, and any necessary staging in preparation for major construction activities. Major construction activities are anticipated to start in the third quarter (July–September) of 2026.

Paek, Edward (Contract Professional)

From: Peter Benoit [redacted]
Sent: Thursday, October 17, 2024 7:30 PM
To: Gass, Erica
Cc: Roskam, Kirk; Sarah Bartlett
Subject: Irving Major Mod design concept

Some people who received this message don't often get email from [redacted] [Learn why this is important](#)

CAUTION: EXTERNAL EMAIL

Hi Erica—

I am an Irving parent and just attended your zoom for the Irving Major Mod project. Thanks for walking through the current thinking on the project.

Please see my attached design concept which is an alternative to your current approach of totally demolishing the original administrative building. I am an architect :) 2-1

At a high level, only one wing of the existing building needs to be demo'd due to encroachment in the fault zone— I think there's a scheme to be studied that keeps 2/3 of the original building, retrofits & remodels existing to remain (concrete structure), retains historic architecture and builds new modern additions (with a modern, different materiality than original buildings). There are exciting opportunities embedded in this scheme that address the core needs of the project— improving life safety, keeping historic buildings and reusing them (retrofit + remodel) and just thinking about this all in a different way. Let the fault shape the new architecture— I can see a very cool glassy addition that fronts the setback, which could be open space for student gatherings, assembly space, flex STEM classes or galleries, showcase student robotics, flight & space projects, etc.

Please post this image to the official response / comments shared with the community, and please also share with your in-house LAUSD design folks and the short-listed design-build candidates.

Thank you,

Peter Benoit

Peter Benoit Architect



Response to Comment No. 2-1

Thank you for your design concept regarding a potential “Retain Portion of Existing Administration Building” alternative that proposes a new two-story glass addition cut to angle of the 50-foot fault setback overlooking a new garden, while seismically upgrading and remodeling the existing center and Estara side modules of the structure and extending the Estara side of the existing Administration Building (1) south to a new one-story modern connector to the existing Auditorium Building and (2) north to a new two-story modern addition and connector to the existing school over the existing parking lots/driveways overlooking the existing sports field. This concept, as well as the accompanying graphic in your comment letter, is included herein.

As stated in Section 5.3, *Alternatives Not Further Evaluated in This EIR* of the Draft EIR (page 5-5), Section CAC 4-317(c) of the California Building Code and CA Ed Code 17212.5 requires that no school building shall be constructed, rehabilitated (i.e., mandatory seismic retrofit), reconstructed, or relocated within 50 feet of the trace of an active fault. Therefore, the new two-story glass addition cut to the angle of the 50-foot fault setback would need to be located through a portion of the “center module,” including the southern central entrance to the Administration Building.

As detailed in Appendix 9, *CEQA Support Documents: Alternative Analysis – Administration Building*, of the Draft EIR, this scenario would present aesthetic, pragmatic, economic, and structural challenges that undermine its feasibility. The basement area of the existing area of the building to be demolished is a hub for multiple building systems that serve the Campus. The main water service to the Campus is here, along with distributions to the other buildings on Campus, and the main sanitary lines. The main electrical distribution boards feeding the building are located here. The main telephone board, television distribution, alarm controller, clock controller, and fire alarm controller are also here. There would be extensive scope and costs involved in replacing and relocating these systems. Both the existing elevator as well as the girls’ restrooms are in a portion of the building to be demolished. These would need to be relocated into the new addition. The existing HVAC equipment and routing in the existing portion to remain would require significant relocation and rerouting. The portion of the building to remain would require extensive structural improvement. Appendix 9 of the Draft EIR illustrates that more shear walls would need to be provided in the remaining portion of the building. There is also new foundation work associated with these shear walls. Of note, a quarter of the existing windows on this portion of the building would need to be infilled. While this alternative would retain a portion of the exterior aesthetic of the 1936 Administration Building, it would not retain the distinctive symmetry of the existing Administration Building. Additionally, the structural upgrade for the remaining portion of the building would require infilling a quarter of the existing windows, further undermining the historic integrity of the building while creating suboptimal daylight conditions for the classrooms. Therefore, this alternative would still result in a significant impact to historic resources. With regard to the 50 percent cost threshold required by Section 4-317(c) and Section 4-309(c)1 of the California Building Code, since the Administration Building would no longer be within the fault zone under this alternative, costs associated with the structural seismic work could be excluded from the building replacement value, and it is possible that the cost of this alternative would be under the threshold. However, due to this alternative’s inability to reduce impacts to historic resources to a less than significant level, it was determined to be unviable. In addition, the Division of the State Architect (DSA) will not permit the remaining portion of the building to be seismically upgraded as the lateral force systems would be reduced by more than 10 percent.

The commenter's proposed new two-story additions would not overshadow the preserved portion of the Administration Building to the same degree as the three-story addition considered within a more limited building footprint in Appendix 9 of the Draft EIR. However, this concept would obstruct the Vehicular Access 1 gate and Irving MS Visitor Entrance Pedestrian Gate to the Campus, while placing the building addition within the City of Los Angeles right-of-way/Roswell Street instead of on LAUSD property. The reduction in parking spaces at this location would need to be offset by providing new parking spots within the demolition area near Fletcher Drive, which would be consistent with the policy of having no new structures within the 50-foot fault setback zone.

Paek, Edward (Contract Professional)

From: Tricia O'Connell <[REDACTED]>
Sent: Friday, October 18, 2024 10:27 AM
To: Roskam, Kirk; Gass, Erica
Cc: Sandy Betts; Kamren Curiel; Aleigh Lewis; Korelan Matteson
Subject: Air pollution information for Irving renovation

CAUTION: EXTERNAL EMAIL

3-1

Hello Principal Roskam and Ms. Gass-
Thank you for hosting the community meeting last night at the school regarding Irving’s upcoming renovations. Wanted to pass on some resources regarding air quality around schoolyards and encourage you to make sure the design team is addressing the potentially harmful impacts of poor air quality for the students and staff in their new design.

As you are aware, Irving is RIGHT next to the 2, ON Fletcher, and near San Fernando (with many warehouses and truck traffic) as well as being fairly close to the train line. These all impact the air quality around the school. There are almost 150,000 cars and 40,000 light trucks a day that pass by on the 2 freeway alone! That’s almost double California’s definition of a “High-volume roadway” (and four times the Federal Hwy Admin’s definition) and this directly affects the health of the students, staff, and neighbors in the school community.

I’ve attached a couple screengrabs from the Schoolyard Forest Lecture Series on air quality impacts around schools, as well as a link to the lecture itself with an EPA scientist. My 6th grader only started at Irving in August and has to regularly use his inhaler while at school but only used it a couple times a year before attending Irving. This is alarming. I did a site walk around the school the day after this lecture last week and noticed that the dead end off of Marguerite street (adjacent to the 2) has no green buffer whatsoever, nor does the school have any substantial green barriers there either. Now is a perfect time to address air quality at the edges of the school since the school will be undergoing renovations.

I’ve attached a couple site photos:

Photo 1: View from the Estara bridge with Irving at right. The area where the sloped mulch and shrub buffer alongside the southbound lanes narrows is unfortunately where the little dead end is off of Margeurite Street, so there is literally NO area for landscape buffer there, and the street on the other side only has a 7’ h wall.

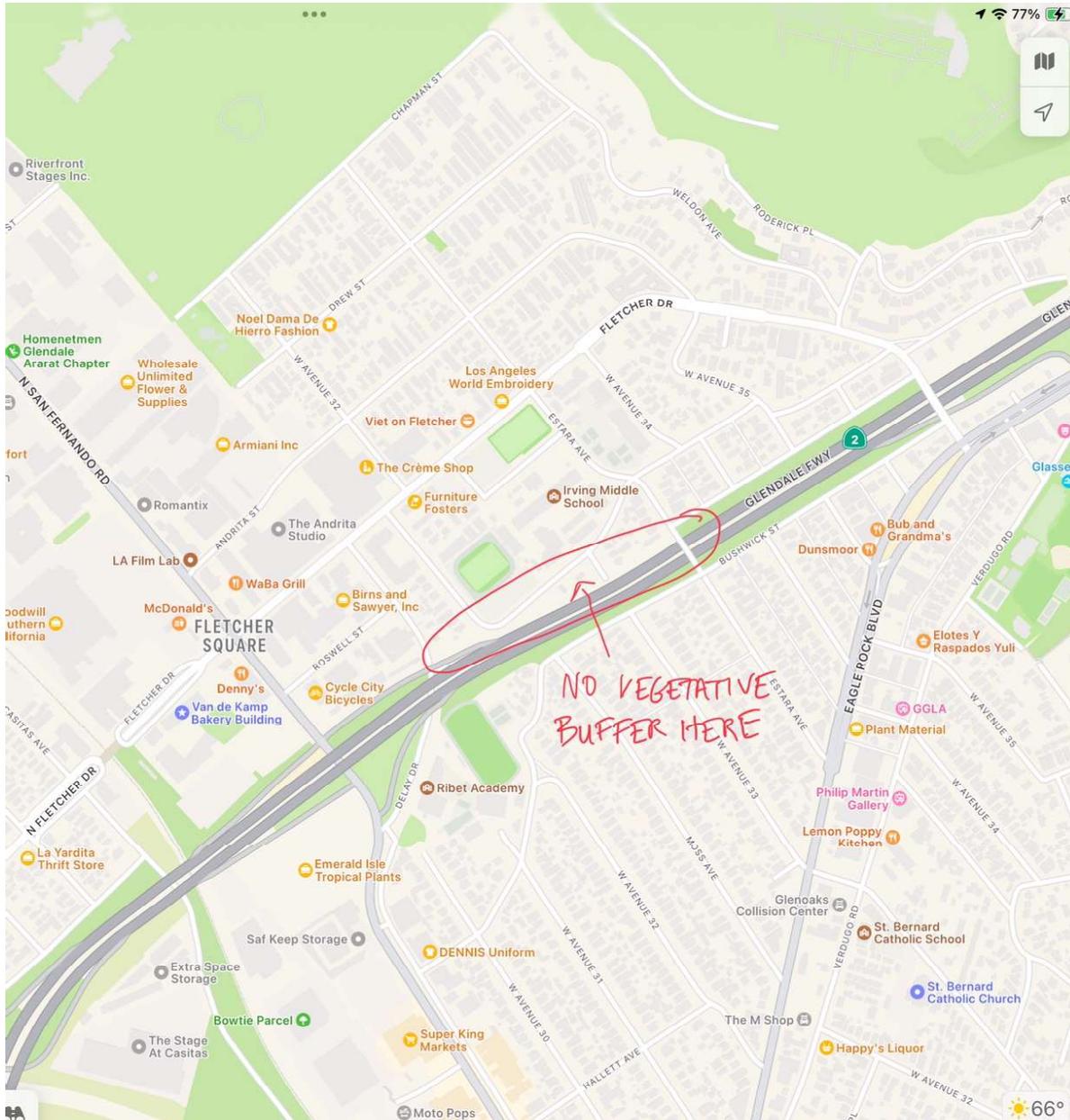
Photo 2: 7’h wall at dead end cul de sac off Marguerite Street. Unless the city reclaims some of this for a vegetative buffer, this area will remain exclusively as hardscape.

Photo 3: view of the south end of Irving from the cul de sac off Margeurite Street. This area of the campus is slated for renovation.

Please consider the air quality when reviewing designs to ensure that this important health consideration is included in the design directives, particularly in areas adjacent to the freeway edge.

Thanks for your time and attention!

Best,
Tricia O’Connell, PLA, ASLA









Safari 11:13 AM Thu Oct 3 Zoom 99%



EPA
United States
Environmental Protection
Agency

Sources of Air Pollution

Traffic-related pollution is caused by:

Car exhaust

Particles

Gases

Truck exhaust

Particles

Gases

Brake and tire wear

Particles

Gases

Re-suspension of dust

Particles

2

Unmute Start video Participants 104 Chat 3 Reactions Share Record Captions Whiteboards Notes More Leave



Sources of Air Pollution

Definition of "High-volume roadway" varies by state.

California:

(Rural)
Above 50,000
vehicles/day

(Urban)
Above 100,000
vehicles/day

New York:

Above 80,000
vehicles/day

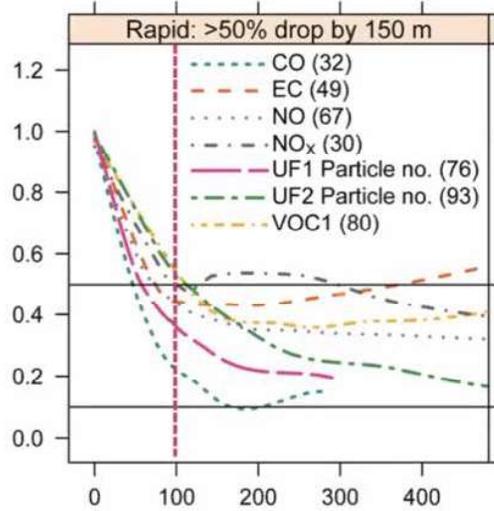
Federal Highway Administration suggests:

Above
50,000
vehicles
per day

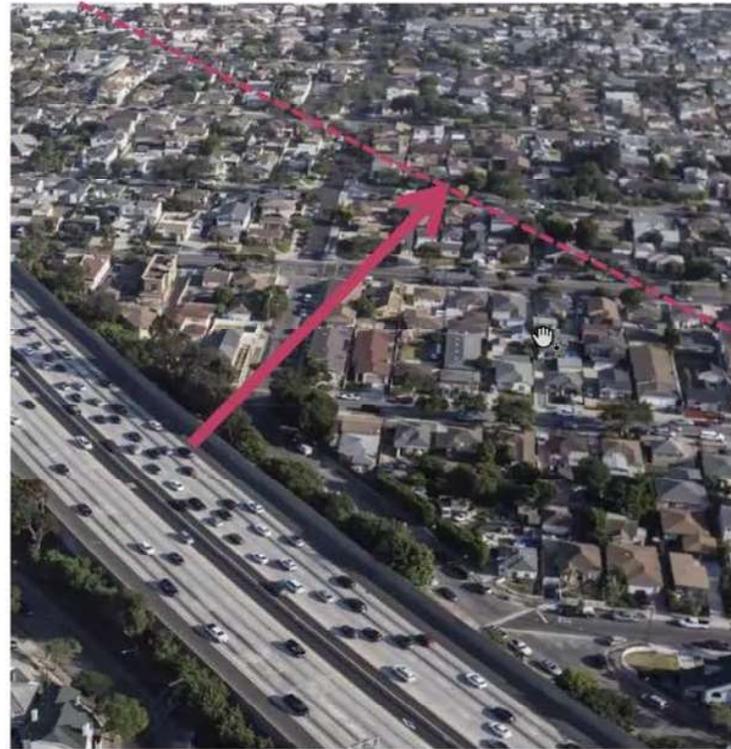




Health Concerns from Transport



Air pollution and exposures often highly elevated near large roads, typically within first 200-300 meters



Karner et al, 2010, Environ Science & Tech, 44(14), pp.5334-5344





Health Concerns from Transport

People living, working, and going to school near large highways and transportation facilities face increased health risks

Health outcomes associated with traffic-related air pollution

Birth outcomes:

- Term low birth weight ●
- Small for gestational age ●

In Children:

- Asthma onset ●
- Acute lower respiratory infections ●
- Asthma ever ●
- Active asthma ●

In Adults:

- All-cause mortality ●
- Circulatory mortality ●
- Ischemic heart disease mortality ●
- Lung cancer mortality ●
- Asthma onset ●
- Respiratory mortality ●
- Ischemic heart disease events ●
- Diabetes ●

Overall confidence in the evidence for an association with long-term exposure to traffic-related air pollution:
 ● high ● moderate to high ● moderate

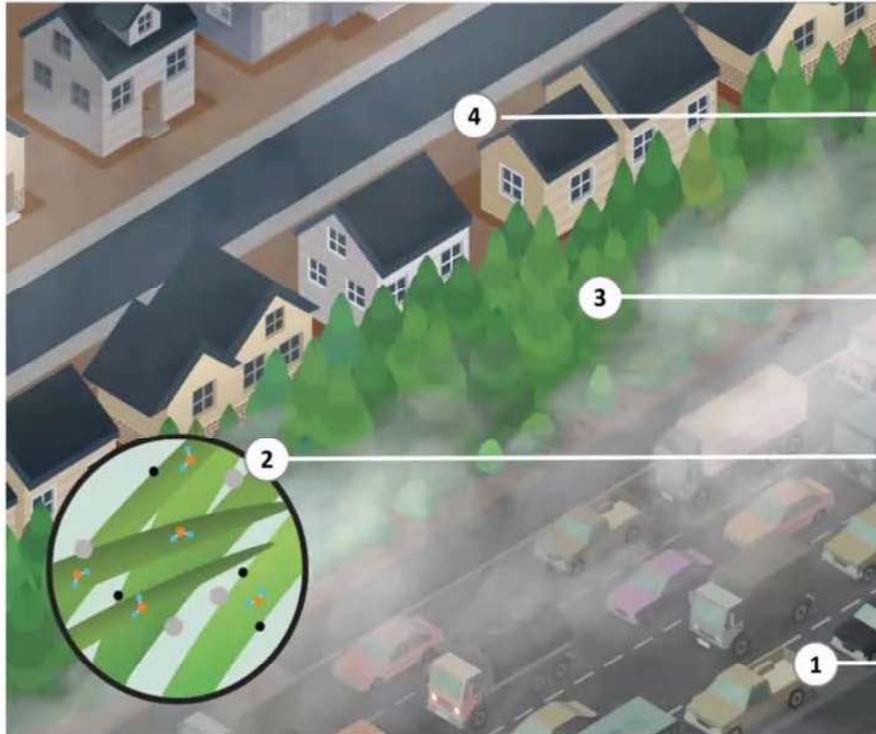
Additional studies have linked other adverse effects including:

- Childhood leukemia
- Cognitive development
- Neurological disorders including autism





How Urban Vegetation Mitigates Air Pollution and SLCPs



The result is lower roadway pollutant concentrations in the area protected by the vegetative barrier

Pollutants are dispersed into the air by roadside trees

Some pollutants are filtered and others are absorbed directly by foliage

Air pollution produced by vehicles on heavily trafficked roadway



Safari 11:30 AM Thu Oct 3 Zoom 99%

REC



Combination Barrier Recommendations





15

Combination of solid and vegetative barriers may have the most benefit for air pollution exposure mitigation

- Maximizes air pollutant dispersion from solid barrier due to no gaps
- Promotes PM and BC removal by vegetation; methane removal in soil
- Provides initial air quality benefit while plants grows, allowing benefits to also grow over time
- Clear solid barriers may alleviate concerns regarding safety and visibility
- Smaller footprint needed for air quality benefits
- Use of climbing vegetation on solid surfaces to reduce PM and BC still uncertain

Examples of solid/vegetation barriers

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Lauren McKenna's screen



Urban Green Infrastructure Benefits

Urban vegetation, including roadside barriers, can have many additional benefits, including:

- Increased CO2 sequestration
- Methane removal in vegetation soils
- Improved urban cooling
- Reduced stormwater runoff/flooding
- Improved water quality
- Reduced noise levels
- Improved aesthetics/property values
- Enhanced community livability
- Improved general public health

“Exposure to green space has been associated with better physical and mental health”



Safari 11:33 AM Thu Oct 3 Zoom 99%



Best Practices for Reducing Near-Road Pollution Exposure at Schools

Developed to provide schools and parents with practical solutions to mitigate air pollution impacts

Types of solutions provided:

- Building Design and Operation Strategies
 - Ventilation, Filtration, and Indoor Air
 - Building Occupant Behavior
- Site-Related Strategies
 - Transportation Policies
 - Anti-Idling and Idle Reduction Policies
 - Upgrade Bus Fleets
 - Encourage Active Transport
 - Site Location and Design
 - Roadside Barriers
 - Noise and Solid Barriers
 - Vegetation/Green Infrastructure

Best Practices for Reducing Near-Road Pollution Exposure at Schools



November 2015
EPA

<https://www.epa.gov/mobile-source-pollution/learn-about-how-mobile-source-pollution-affects-your-health#best-practices-for-schools> (Updated in 2021)

22

Unmute
Start video
Participants 110
Chat 20
Reactions
Share
Record
Captions
Whiteboards
Notes
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Lauren McKenna's screen

Addressing Air Quality Impacts in Schoolyards

Richard Baldauf, PhD

Senior Research Engineer
US Environmental Protection Agency

Brent Bucknum

Founder
Hyphae Design Laboratory



© SHARON DANKS, GREEN SCHOOLYARDS AMERICA

**Schoolyard Forest
Design Lecture Series**



Response to Comment 3-1

Thank you for your comment letter with resources regarding air quality around schoolyards. A landscape buffer will be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR).

Air quality was analyzed in the Draft EIR, with the following conclusions:

- The proposed Project would not conflict with, or obstruct, implementation of the applicable air quality plan.
- The proposed Project would not 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.

As shown in Draft EIR Table 3.1-8, *Maximum Daily Unmitigated Regional Construction Emissions (Pounds Per Day)*, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the SCAQMD numeric thresholds. These calculations include compliance with appropriate dust control measures mandated to be implemented during each phase development, as required under SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-2 through SC-AQ-4. As previously discussed, SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications. SC-AQ-3 would implement methods for reducing onsite dust emissions during soil removal. SC-AQ-4 is intended to reduce construction exhaust and fugitive dusts emissions with a number of features including utilizing off-road construction equipment that is compliant with Tier 3 engine standards (at a minimum) and applying soil stabilizers. SC-AQ-4 requires that Tier 3- or Tier 4-compliant off-road construction equipment be used during construction. LAUSD would require that all equipment meet Tier 4 standards when feasible and equipment is available. Where Tier 4 equipment is not feasible or available for use on the proposed Project, Tier 3-compliant equipment will be required. As the possibility of Tier 3 equipment exists, construction emissions were estimated assuming Tier 3 equipment as a worst-case emissions estimate. Therefore, impacts would be less than significant with respect to regional emissions from construction activities.

- The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

As shown in Draft EIR Table 3.1-9, *Maximum Unmitigated Localized Construction Emissions (Pounds per Day)*, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Application of D SC-AQ-2, SC-AQ-3, and SC-AQ-4 would reduce localized air pollutant emissions construction equipment exhaust combined with fugitive dust particulate matter emissions generated. Therefore, impacts would be less than significant during construction with respect to localized emissions from construction activities. The proposed Project would not expose sensitive receptors to pollutants above allowable levels.

As shown in Draft EIR Table 3.1-10, *Maximum Unmitigated Localized Operations Emissions (Pounds per Day)*, unmitigated maximum localized operation emissions exposure to the nearest sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM_{2.5}, and PM₁₀.

A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR). to specify that the 30 percent landscape area planned for the Campus would include a vegetative buffer along Marguerite Street to reduce existing air quality effects of the Campus location within 500 feet of the SR 2 freeway. Although the proposed Project would not exceed emissions limits, this refinement to the proposed Project description would improve existing conditions.

SC-AQ-1 requires preparation of an HRA for new campus locations that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions (e.g., permitted and nonpermitted stationary sources, freeways and other busy traffic corridors, railyards, and large agricultural operations). Under SC-AQ-1, for freeways and other busy traffic corridors within 500 feet, air dispersion modeling must be used to make the health risk determination. If the HRA does not find that health risks are below criteria thresholds, it may make recommendations that would reduce exposure impacts, such as upgraded air filtration systems for indoor areas or limitations on use for outdoor areas. A clarification has been made to Section 3.1, *Air Quality*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include SC-AQ-1 as an applicable standard condition for the proposed Project due to the Project's inclusion of new classrooms and outdoor play areas.

LAUSD acknowledges receipt of the attached screengrabs from the Schoolyard Forest Lecture Series on air quality impacts around schools, as well as link to the lecture, in addition to the attached site photos. This information will be taken into consideration by the District Board during their decision-making process.

From: Tricia O'Connell - [REDACTED] >
Sent: Thursday, October 31, 2024 4:45 PM
To: Gass, Erica <cp-erica.gass@lausd.net>; kroskam@lausd.net
Subject: Public comments for Irving School modernization

You don't often get email from [REDACTED]. [Learn why this is important](#)

CAUTION: EXTERNAL EMAIL

4-1

Hello Ms. Gass and Principal Roskam-
Attached are my public comments regarding the upcoming modernization project. I would like to stress the importance of mitigating the poor air quality on campus that my son, a 6th grader, has noticed on the site. He has had to use his inhaler since starting at Irving, and other new parents have reported similar alarming symptoms too. Note that a new school **would not be allowed** to be constructed where most of the buildings are now, as they are within 500 ft. of a major highway- because of air pollution issues and potential exposure to toxic elements. *This fact alone* suggests that air quality seriously needs to be factored into the site design- both in the siting of buildings (out of the 500' setback if possible), and in incorporating any thick vegetative elements that can be added at the southern border to lessen the impact of the freeway on the health of both the children and staff at Irving Middle School.

Thank you for your time!

Best,
Tricia O'Connell, ASLA, PLA
Irving parent of Theo Bell, 6th grade

--
TRICIA O'CONNELL, PLA, ASLA

LANDSCAPE ARCHITECT, STATE OF CA #6545
SANCTUARY LANDSCAPE ARCHITECTURE
TERRA/SOMA LANDSCAPE ARCHITECTURE

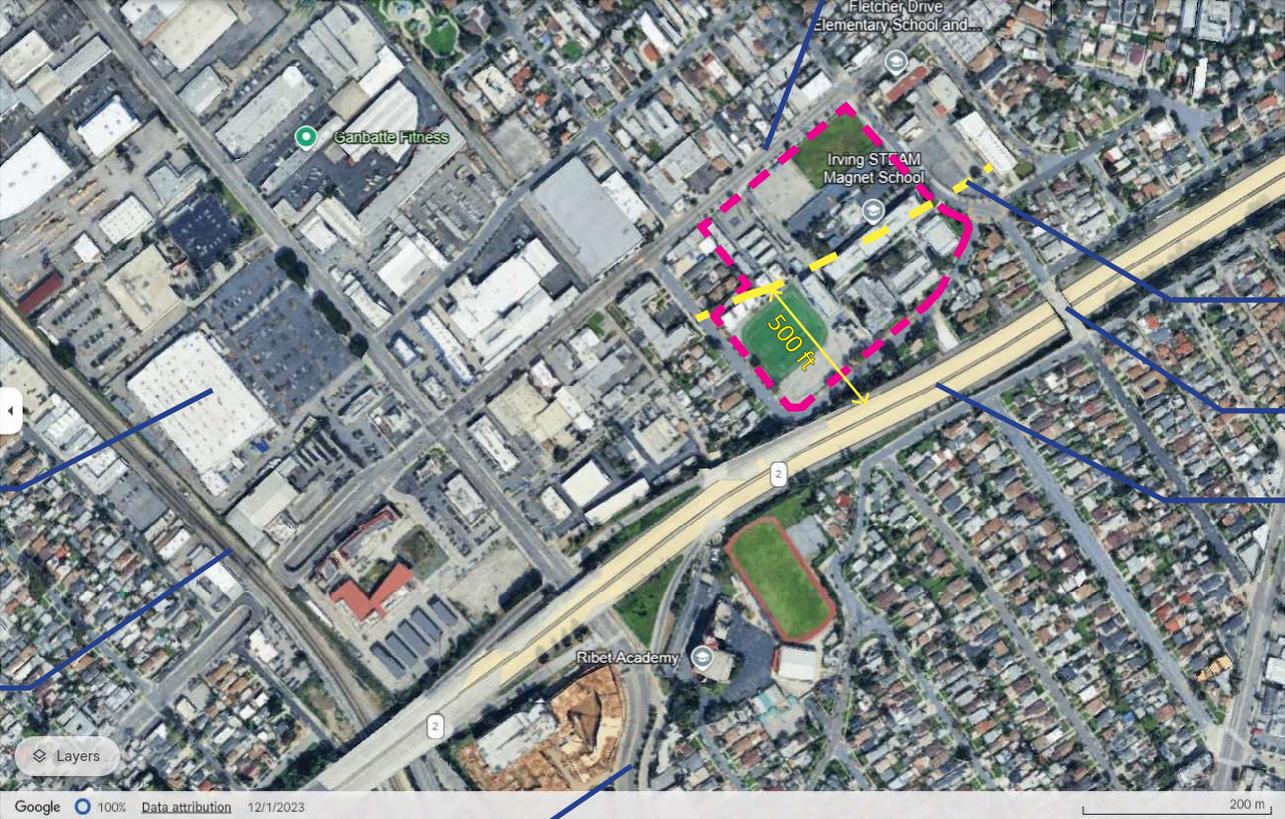
ASLA LIAISON TO STUDENTS, 2024
ALDAMA ELEMENTARY GREEN TEAM

[REDACTED]
[REDACTED]

A man has made at least a start on discovering the meaning of human life when he plants shade trees under which he knows full well he will never sit.
-Elton Trueblood

THE CASE FOR AIR QUALITY MITIGATION MEASURES AT IRVING MIDDLE SCHOOL

IRVING STEAM MAGNET MIDDLE SCHOOL
3010 ESTARA AVE.
LOS ANGELES, CA 90065



WAREHOUSE DISTRICT

MAJOR RAILWAY

SAN FERNANDO ROAD
(MAJOR TRANSIT CORRIDOR)

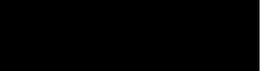
500' OFFSET OF 2
FREEWAY

ESTARA BRIDGE

2 FREEWAY



Submitted by Irving Parent Tricia O'Connell, ASLA, PLA #6545



October 2024

EXISTING SITE CONDITIONS SHOWING THE NEED FOR AIR QUALITY MITIGATION MEASURES

IRVING MIDDLE SCHOOL
RV AT 2 FREEWAY
BUMP-OUT



VIEW OF 2 FREEWAY FROM ESTARA BRIDGE (LOOKING WEST)

-Irving Middle school visible at right (royal blue and white building)

-Note the **lack of a vegetative barrier** along this portion of the freeway, **especially** at the bumped out cul de sac off of Margeurite St, where the RV is visible.

-Possible to plant a tall vegetative barrier along the fwy edge (except at bump-out at the cul de sac)?

7' H CMU WALL AT FWY.
RV



VIEW OF CUL DE SAC OFF MARGUERITE STREET (LOOKING WEST)

-Irving Middle school is off to the right

-Note the RV seen in earlier photos parked up against a 7'h CMU wall (on top of fwy barrier wall close to the drive lane)

-Lack of a vegetative barrier along this portion of the freeway.

IRVING MIDDLE SCHOOL
RV



VIEW OF IRVING MIDDLE SCHOOL AND RV IN CUL DE SAC

-The distance of the property line of Irving Middle school to the freeway drive lanes:

- 66' at the SE edge
- 211' at the cul de sac as shown in this photo
- 316' at the SE edge

-Note the RV seen in earlier photos parked up against a 7'h wall and the lack of a vegetative barrier along this portion of the freeway.

EXISTING SITE CONDITIONS SHOWING THE NEED FOR AIR QUALITY MITIGATION MEASURES

IRVING MIDDLE SCHOOL
MARGUERITE ST

MARGUERITE ST SIDEWALK
ALONG SCHOOL'S SOUTHERN EDGE



VIEW OF MARGUERITE ST AND SCHOOL PROPERTY LINE (LOOKING WEST)

-No vegetative screening at this edge, across from the Cul de Sac, where there is also no vegetative screening

-Note the bare dirt area available to plant tall screening shrubs and trees.

-PROPERTY LINE IS APPROX. 211' AWAY FROM THE FREEWAY HERE!

VIEW OF SIDEWALK ON MARGUERITE ST AND SCHOOL GROUNDS ALONG SW EDGE

-Only short vegetative screening at this edge

-Opportunity to plant tall screening shrubs and trees.

VIEW OF SIDEWALK ON MARGUERITE ST AND SCHOOL GROUNDS AT SW CORNER

-Only short and sparse vegetative screening at this edge

-PROPERTY LINE IS APPROX. 66' AWAY FROM THE FREEWAY HERE!

Table 2. School siting documents developed by various agencies.

Agency	Guidance	Key Outcomes
U.S. EPA	School Siting Guidelines (2011)	Recommends considering many factors in evaluating locations for new schools, including proximity to the community (including community amenities and infrastructure), distance from major transportation facilities, exposure to air pollutants during student commutes, feasible mitigation on site, and accessibility by walking or biking.
California Air Resources Board	Air Quality and Land Use Handbook (2005)	Recommends that new schools are not located within 500 feet of major roadways (>50,000 vehicles/day).
California Department of Education	School Site Selection and Approval Guide (2000)	Recommends distancing schools 2,500 feet from major roadways where explosives are carried and at least 1,500 feet from roads where gasoline, diesel, propane, chlorine, oxygen, pesticides, or other combustible or poisonous gases are transported.
South Coast Air Quality Management District	Air Quality Issues in School Site Selection: Guidance Document (2005, updated 2007)	Recommends a buffer zone of no less than 500 feet, and as much as 1,000 feet, between schools and major roadways.
Los Angeles Unified School District	Distance Criteria for School Siting (2008)	Recommends that new schools are not built within 500 feet of a freeway or major transportation corridor (>100,000 vehicles/day).

Irving Middle School is undergoing a major renovation starting in 2026 due to the fact that many buildings are over an earthquake fault. Design is expected to begin in quarter 4 of 2025.

Please take into consideration any measures to *mitigate air pollution* when siting the buildings and adding vegetative elements. **A new school WOULD NOT BE ALLOWED where the current buildings are located** and they would additionally require extensive air testing on the actual site, not just relying on data for the whole south coast area.

This fact alone suggests that air quality mitigation measures should be FACTORED INTO the design and project objectives.

My son is a 6th grader at Irving and has had an inhaler since he was a baby but has almost never had to use it. Since he has been at Irving, he has had to use it every week. Another parent reported the same thing with her daughter, also a new student. This is alarming!!

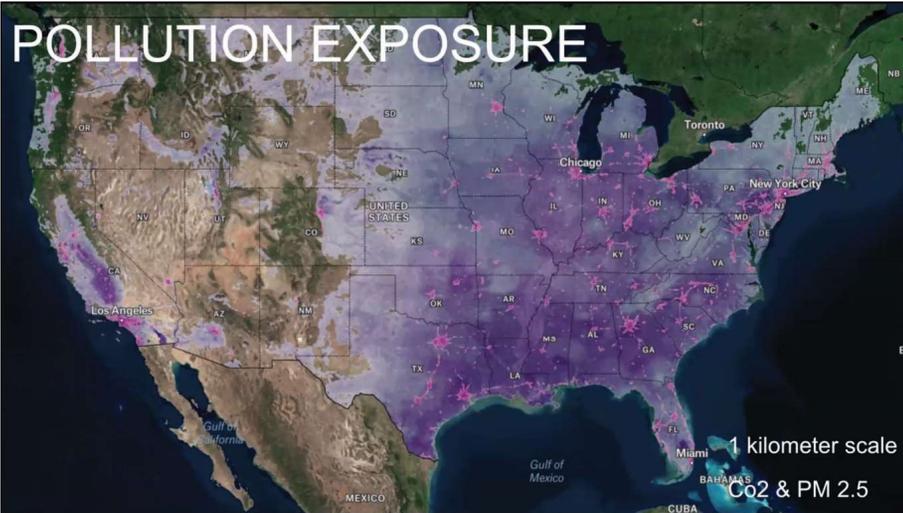
The following pages include some information from a recent Air Quality webinar through Green Schoolyards America with an EPA scientist, as well as some practical recommendations found in an EPA publication specifically around school sites.

Addressing Air Quality Impacts in Schoolyards

Richard Baldauf, PhD
Senior Research Engineer
US Environmental Protection Agency

Brent Bucknum
Founder
Hyphal Design Laboratory

Schoolyard Forest:
Design Lecture Series



12:10PM Thu Oct 3

Analyze Design Implement Monitor Evaluate

Locate Your Public School

search by name or address

3010 Estara Avenue, L...

Name: Washington Irving Mid Sch Math Music and Engr Magnet

Layer: Public Schools

AADT Cars: 148000
AADT Small Trucks: 2704
AADT Big Trucks:
City: Los Angeles

Layers

- PM25 Pollution
- Power Plants Nationwide
- Warehouses
- Public Schools
- Private Schools

School Search

Find Schools

IRVING STEAM MAGNET MIDDLE SCHOOL

-Traffic volume is 3x the national standard for a high volume roadway, & 1.5 X California's standards

ALMOST 150,00 CARS PASS BY IRVING EVERY DAY! PLUS ALMOST 3,000 SMALL TRUCKS

Addressing Air Quality Impacts in Schoolyards

Richard Baldauf, PhD
Senior Research Engineer
US Environmental Protection Agency

Brent Bucknum
Founder
Hyphae Design Laboratory






Zoom

99%



Addressing Air Quality Impacts in Schoolyards: Use of Green Infrastructure

Richard Baldauf
U.S. Environmental Protection Agency
Green Schoolyards Webinar Series
October 3, 2024



JB John Brush (He/Him), Quinta Mazatlan, McA...
John Brush, Quinta Mazatlan, City of McAllen...



Hand icon

Chat icon

Pen icon

Eraser icon

Highlighter icon

Text tool icon

Eraser icon

More icon

Office of Research and Development
Center for Environmental Measurement and Modeling | Air Methods and Characterization Division

Unmute Start video Participants 102 Chat 2 Reactions Share Record Captions Whiteboards Notes More Leave

Calendar icon

Bookmarks icon

Files icon

Refresh icon

1

Search icon



Sources of Air Pollution

Traffic-related pollution is caused by:

Car exhaust



Particles

Gases

Truck exhaust



Particles

Gases

Brake and tire wear



Particles

Gases

Re-suspension of dust



Particles





Sources of Air Pollution

Definition of "High-volume roadway" varies by state.

California:

(Rural)
Above 50,000
vehicles/day

(Urban)
Above 100,000
vehicles/day

New York:

Above 80,000
vehicles/day

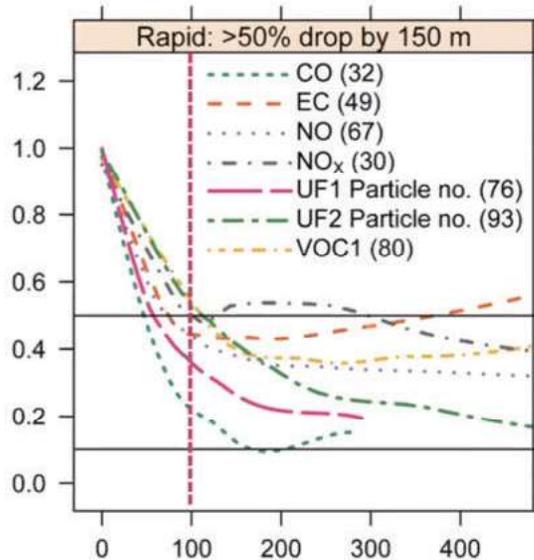
Federal Highway Administration suggests:

Above
50,000
vehicles
per day

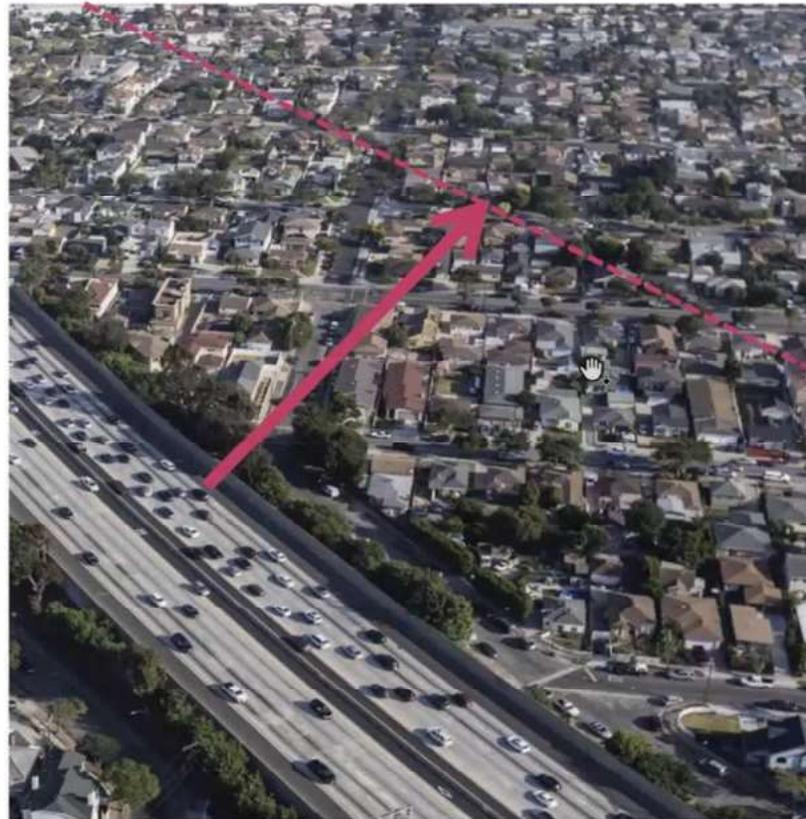




Health Concerns from Transport



Air pollution and exposures often highly elevated near large roads, typically within first 200-300 meters



Karner et al, 2010, Environ Science & Tech, 44(14), pp.5334-5344





Health Concerns from Transport

People living, working, and going to school near large highways and transportation facilities face increased health risks

Health outcomes associated with traffic-related air pollution

Birth outcomes:

- Term low birth weight ●
- Small for gestational age ●

In Children:

- Asthma onset ●
- Acute lower respiratory infections ●
- Asthma ever ●
- Active asthma ●

In Adults:

- All-cause mortality ●
- Circulatory mortality ●
- Ischemic heart disease mortality ●
- Lung cancer mortality ●
- Asthma onset ●
- Respiratory mortality ●
- Ischemic heart disease events ●
- Diabetes ●

Overall confidence in the evidence for an association with long-term exposure to traffic-related air pollution:

- high
- moderate to high
- moderate



Additional studies have linked other adverse effects including:

- Childhood leukemia
- Cognitive development
- Neurological disorders including autism





Why consider mitigation using green infrastructure?

Public wants to know what can be done now for near-road health concerns at home, school, care facilities, etc.

Few other “short-term” mitigation options exist

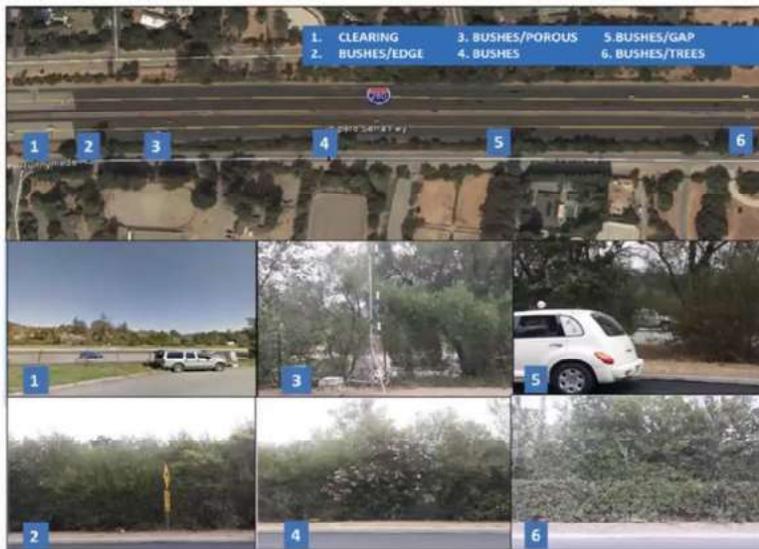
- Vehicle emission standards can take long time to implement
- Planning, zoning and large investments often needed for activity reduction programs
- Buffer/exclusion zones may not be feasible in urban areas

Green infrastructure/space often provides other co-benefits





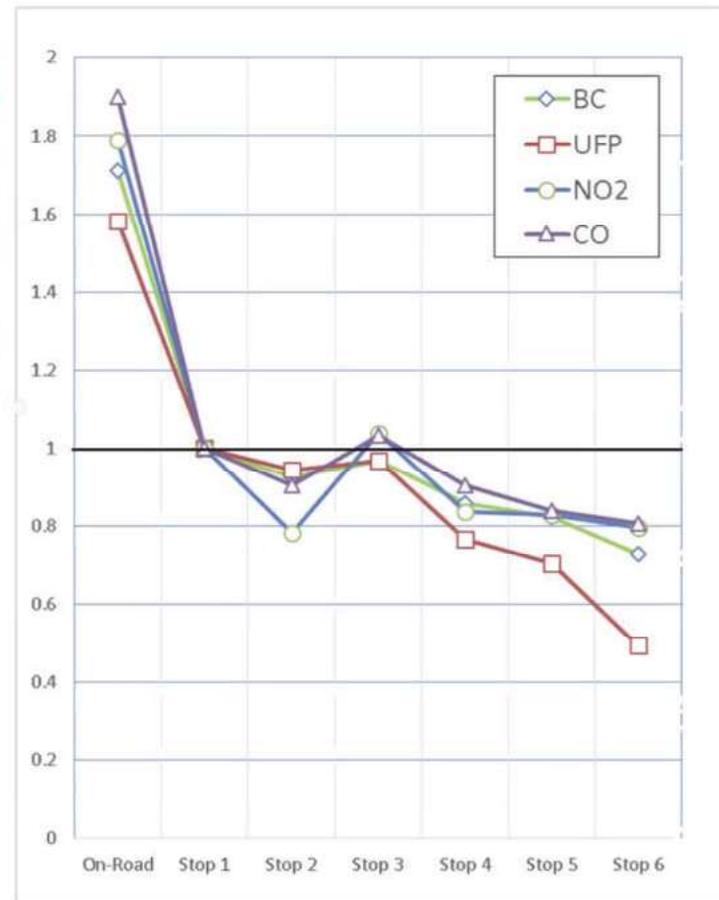
Research Example



Plant conditions can affect the levels of downwind pollution

- Thick, tall and full coverage reduced pollution downwind of the road
- Gaps and porous vegetation led to no reductions or even higher levels downwind of the road

9



Deshmukh et al, 2019, Air Quality, Atmos & Health, 12(3), pp.259-270

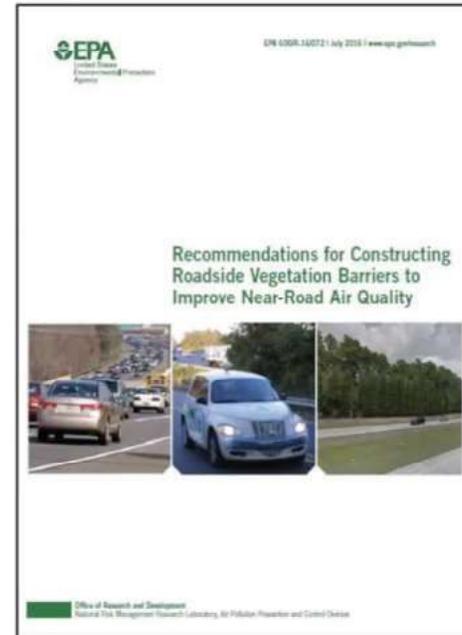




Roadside Vegetation Recommendations

The U.S. EPA developed recommendations for planting and maintaining roadside vegetation in 2016

- Used to design and implement planting pilot projects in the U.S. and China
- Includes vegetation alone and combined with solid barriers
- Provides recommendations intended to:
 - Maximize the potential for air pollution mitigation,
 - Avoid unintended consequences and designs that may increase downwind concentrations and exposures, and
 - Consider other co-benefits of urban green infrastructure.

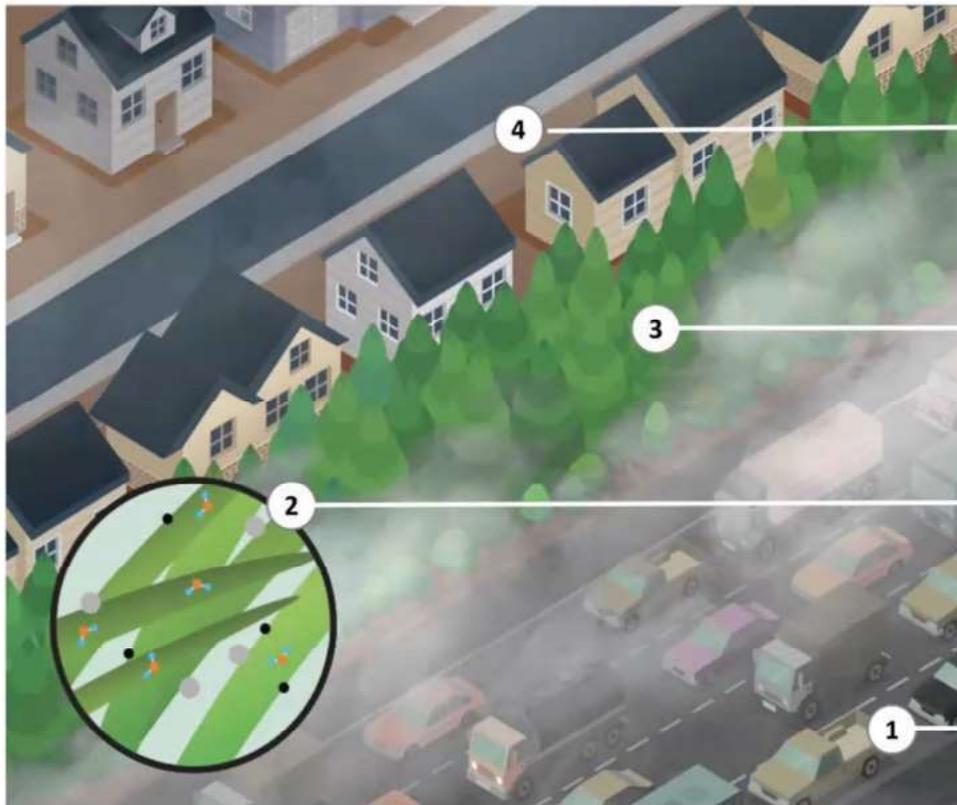


https://www.epa.gov/sites/production/files/2016-08/documents/recommendations_for_constructing_roadside_vegetation_barriers_to_improve_near-road_air_quality.pdf





How Urban Vegetation Mitigates Air Pollution and SLCPs



The result is lower roadway pollutant concentrations in the area protected by the vegetative barrier

Pollutants are dispersed into the air by roadside trees

Some pollutants are filtered and others are absorbed directly by foliage

Air pollution produced by vehicles on heavily trafficked roadway





Vegetative Barrier Recommendations



Areas desired for reduced pollutant concentrations should avoid gaps and edge effects

- Complete coverage from the ground to the top of the canopy
- Thickness adequate to reduce porosity and avoid gaps

Pine/coniferous trees and thick bushes/hedges may be good choices

- Minimal or no seasonal effects
- Complex, rough, waxy surfaces

Mix of species (bushes/trees) may increase coverage and robustness

Examples of full coverage, pine and hedge barriers





Combination Barrier Recommendations



15

Combination of solid and vegetative barriers may have the most benefit for air pollution exposure mitigation

- Maximizes air pollutant dispersion from solid barrier due to no gaps
- Promotes PM and BC removal by vegetation; methane removal in soil
- Provides initial air quality benefit while plants grows, allowing benefits to also grow over time
- Clear solid barriers may alleviate concerns regarding safety and visibility
- Smaller footprint needed for air quality benefits
- Use of climbing vegetation on solid surfaces to reduce PM and BC still uncertain

Examples of solid/vegetation barriers

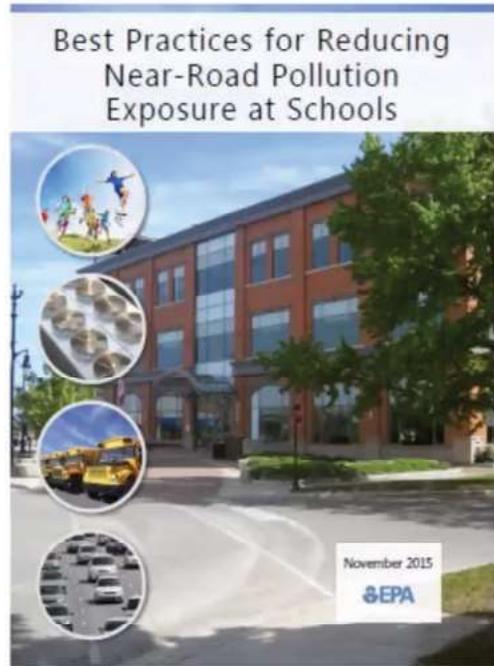


Best Practices for Reducing Near-Road Pollution Exposure at Schools

Developed to provide schools and parents with practical solutions to mitigate air pollution impacts

Types of solutions provided:

- Building Design and Operation Strategies
 - Ventilation, Filtration, and Indoor Air
 - Building Occupant Behavior
- Site-Related Strategies
 - Transportation Policies
 - Anti-Idling and Idle Reduction Policies
 - Upgrade Bus Fleets
 - Encourage Active Transport
 - Site Location and Design
 - Roadside Barriers
 - Noise and Solid Barriers
 - Vegetation/Green Infrastructure



<https://www.epa.gov/mobile-source-pollution/learn-about-how-mobile-source-pollution-affects-your-health#best-practices-for-schools> (Updated in 2021)

Best Practices for Reducing Near-Road Pollution Exposure at Schools



November 2015





Encourage Active Transportation

Promoting active transportation, such as walking and bicycling to and from schools, can help reduce traffic-related pollution by reducing the number of buses and passenger vehicles nearby. For example, the addition of walking/biking paths at Roosevelt Middle School in Eugene, Oregon, reduced traffic volumes near the school by 24%.²¹

While active transportation may contribute to improved air quality near schools, students walking or biking to school may be exposed to roadway pollution and other traffic hazards because of their proximity to motor vehicle traffic. When safe alternatives exist, biking and walking to school along routes with lower traffic volumes may help reduce exposure to pollution and safety hazards.²²

Parallel and off-street walking/biking paths through parks or other off-road areas can also provide a good alternative to traveling along a road with many motor vehicles. Pursuing pedestrian and bicycle infrastructure improvements can help provide safer routes for students to walk and bike to school. This could include installing or improving sidewalks, crosswalks, signs, markings, and countdown timers, as well as encouraging “walking” school buses.²³ When considering walking and biking routes to school, impacts on safety, lighting, access, and maintenance requirements should be considered. The Safe Routes to School National Partnership provides many resources on promoting safe walking and biking (www.saferoutespartnership.org).

Despite the potential for increased exposure associated with active transportation, walking and biking have been shown to improve health, and people who live in highly walkable neighborhoods are generally more physically active than those who live in less walkable neighborhoods. Promoting walking and biking to school along routes or paths with lower traffic volumes (relative to other roads) will increase the likelihood that the health benefits of exercise outweigh the health risks associated with increased air pollutant exposures.

Recommendations

- Limit school bus idling by instituting anti-idling or idle reduction policies.
- Upgrade school bus fleets by:
 - Retrofitting buses with PM filters or oxidation catalysts; and
 - Replacing older buses with newer models.
- Emissions may be reduced by using certain alternative fuels, including biodiesel blends. Engines certified to operate on alternative fuel such as LPG, CNG, and LNG can also reduce emissions.
- Discuss funding opportunities for bus fleet upgrades with your local or state environmental or air quality agency.
- Provide walking and biking paths to promote active transportation and reduce the number of buses and passenger vehicles near the school.

Site Location and Design

In response to concerns about the impacts of near-road air pollution, several agencies, including EPA and several state agencies in California, have established siting guidelines for new schools that recommend reducing traffic-related air pollution exposure (Table 2). While California guidelines recommend that new schools should not be located within 500 feet or more of major roads, EPA's *School Siting Guidelines* note the need to consider multiple issues associated with exposure and health. For example, a school sited far from a major road

²¹ Safe Routes to School National Partnership. (2012). *Safe routes to school and traffic pollution: Get children moving and reduce exposure to unhealthy air*. Available at http://www.saferoutespartnership.org/sites/default/files/pdf/Air_Source_Guide_web.pdf

²² Safe Routes to School National Partnership. (2012). *Safe routes to school and traffic pollution: Get children moving and reduce exposure to unhealthy air*. Available at http://www.saferoutespartnership.org/sites/default/files/pdf/Air_Source_Guide_web.pdf

²³ National Center for Safe Routes to School. (2013). *Starting a walking school bus*. Available at <http://www.walking-schoolbus.org>

that requires long commutes by bus or car may result in higher overall exposure for students, compared to a school site near a major road that does not require long commutes. Overall, EPA recommends multiple strategies, as described in this document, to reduce students' overall exposure.

School sites include of a variety of land use types, such as classrooms, playgrounds, athletic fields, offices, and maintenance and storage facilities. For new school developments near roadways, there may be opportunities to reduce traffic-related pollution exposure through careful site design. By

Table 2. School siting documents developed by various agencies.

Agency	Guidance	Key Outcomes
U.S. EPA	School Siting Guidelines (2011)	Recommends considering many factors in evaluating locations for new schools, including proximity to the community (including community amenities and infrastructure), distance from major transportation facilities, exposure to air pollutants during student commutes, feasible mitigation on site, and accessibility by walking or biking.
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Los Angeles Unified School District	Distance Criteria for School Siting (2008)	Recommends that new schools are not built within 500 feet of a freeway or major transportation corridor (>100,000 vehicles/day).



Sample layouts for a large land parcel with a school and other land uses. A less desirable layout (left) with the school located close to the highway is compared to an improved layout (right) with the school more than 500 feet from the highway (red dotted line).

locating land uses such as maintenance, storage, parking, and office facilities in the area closest to the roadway, classroom and play areas can be located farther from the roadway in areas where air pollutant concentrations tend to be lower. Some of these strategies may also be applicable to existing school sites near roadways, or to sites located near other sources of diesel particulate air pollution such as warehouses, truck routes, railyards, and ports.

Exposure to traffic-related pollution can also be reduced by locating onsite transportation-related sources, especially school bus drop-off and pick-up locations, as far from classrooms, play areas, and building air intakes as possible. Optimal placement of offices, playgrounds, athletic fields, and classrooms within a school site depend on a variety of factors, including typical wind patterns, the amount of time spent and activities performed outdoors versus indoors, and indoor ventilation conditions.

Recommendations

- For new school developments, consider locations farther from major roads and other areas with heavy truck traffic, but still within the community.
 - A quantified evaluation of post-mitigation air quality impacts may be appropriate and/or required.
- Consider unintended consequences of any location, such as increased commute distances and decreased opportunity for walking and biking.
- Consider opportunities to locate playgrounds, athletic fields, and classrooms farther from the roadway, or other areas with heavy truck traffic, by locating maintenance, storage, parking, and office facilities in the area closest to the roadway.
- Locate bus and passenger vehicle loading zones away from classrooms, play areas, and building air intakes.

Roadside Barriers

Sound Walls

Pollutant concentrations behind a barrier located downwind of a roadway are typically lower than concentrations in the absence of a barrier. Studies show that reductions in downwind pollutant concentrations within approximately 500 feet of a highway in the presence of a well-designed sound wall can be on the order of 15% to 50%.²⁴



The effectiveness of sound walls at mitigating near-road pollution exposure depends on roadway configuration, local meteorology, and barrier height, design, and endpoint location. For example, pollutant concentrations may be higher downwind of a wall if there are gaps in the wall that allow pollutants to pass through. Sound walls can be considered for schools located adjacent to highways and other busy, high-traffic roadways.

In situations where school authorities do not have jurisdiction or ownership over the immediate roadside environment, consider discussing the use of roadside barriers to reduce traffic-related pollution exposure with the relevant authority (e.g., state department of transportation, city planning department).

²⁴Baldauf, R. W., Khlystov, A., Isakov, V., Thoma, E., Bowker, G. E., Long, T., & Snow, R. (2008). Impacts of noise barriers on near-road air quality. *Atmospheric Environment*, 42, 7502-7507.

The combined use of vegetation and sound walls has shown promise in reducing vehicle pollution downwind of roadways by up to 60%.²⁵

Vegetation

Trees and plants along roadways can reduce particle concentrations by acting as a physical barrier between roadways and schools (similar, in effect, to sound walls), or by filtering particles as they pass through and accumulate on leaf surfaces. The amount of removal depends on season, plant species, leaf size and density, and pollutant type. The effectiveness of trees and plants as physical barriers also depends on the density and height of the greenery. Mature vegetation tends to be more effective than young vegetation, evergreen species are typically more effective than deciduous species, and vegetation with needle-like greenery (e.g., conifers) tends to be more effective than broad-leaved trees. Particle removal rates tend to be higher when vegetation is located close to the pollutant source and when wind speeds are low.

The vegetation types chosen for roadside barriers should be appropriate for the location of interest, including water requirements, non-invasive species, and aesthetics. In general, the vegetation barrier should be thick (approximately 20 feet or more) and have full leaf and branch coverage from the ground to the top of the canopy along the entire length (i.e., no gaps in-between or underneath the vegetation). In some instances, this type of barrier may require the use of multiple vegetation types such as a combination of bushes and trees. The vegetation chosen should also maintain its structure during all seasons; thus, coniferous trees would be preferable to hardwood species. The vegetation types chosen should also not be emitters of air pollution or high levels of pollen. Schools can use the U.S. Department of Agriculture's (USDA's) i-Tree Species tool²⁶ to begin the process of choosing appropriate vegetation, in consultation with other experts from plant nurseries, local cooperative extensions, city government, or the U.S. Forest Service. All vegetation that will be located near a road should be sited consistent with state and local safety guidelines.

Recommendations

- Use a solid roadside barrier (only along highways) and/or vegetation to block traffic-related pollutants from influencing air quality near the school.
- Minimize gaps in solid and vegetative roadside barriers.
- For vegetative barriers, use an evergreen species with mature, dense greenery and locate the barrier downwind and close to the roadway.
- Choose species appropriate for region and site, consulting with plant nurseries, local cooperative extensions, city governments, or the U.S. Forest Service.

Similar to sound walls, concentrations may be higher behind a vegetative barrier that is located downwind of the roadway if there are gaps in the vegetation such as missing or dead trees, or lack of cover from the ground to the top of the vegetation. In any case, vegetation can be used as a buffer to distance people from the roadway while creating a more attractive and shaded space that encourages active transportation (such as walking and bicycling) as an alternative to vehicle use.²⁷



²⁵ Bowker, G. E., Baldauf, R., Isakov, V., Khylystov, A., & Petersen, W. (2007). The effects of roadside structures on the transport and dispersion of ultrafine particles from highways. *Atmospheric Environment*, 41, 8128-8139.

²⁶ USDA's i-Tree Species is designed to aid users in selecting proper species given the tree functions they desire. The tool is available at www.itreetools.org/species.

²⁷ Baldauf, R., McPherson, G., Wheaton, L., Zhang, M., Cahill, T., Hemphill Fuller, C., Withycombe, E., & Titus, K. (2013). Integrating vegetation and green infrastructure into sustainable transportation planning. *Transportation Research News*, September-October, 14-18.

Response to Comment No. 4-1

A landscape buffer will be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include this element as part of the Project Description.

As stated in Draft EIR Section 2.6.5, *Circulation, Access, and Parking*, any areas located directly above the fault would be turned into outdoor areas, such as hardscape, landscape, or parking areas. This would include within the footprint of the existing Administration Building, Classroom 1 Building, and Homemaking Building within the fault that would be demolished. All three of these buildings are located within 500 feet of State Route 2.

As stated in Draft EIR Section 2.6.6, *Landscape Improvements*, the proposed Project would include new landscaped areas that contribute to meeting the District Board's goal of 30 percent landscaped areas. The proposed Project would increase pervious ground cover by converting existing impervious areas (such as the existing Administration Building, Classroom Building, Homemaking Building, hardscaped parking areas, and hardscaped recreation areas).

As shown in Draft EIR Figure 2-8, *Proposed Project Site Plan*, the development zones for the proposed Project are located outside of the 50-foot fault zone near the Auditorium Building, along Estara Avenue, and along Fletcher Drive, which increases the concentration of classroom space at a distance of at least 500 feet from State Route 2 compared to the existing condition.

Air quality was analyzed in the Draft EIR, with the following conclusions:

- The proposed Project would not conflict with, or obstruct, implementation of the applicable air quality plan.
- The proposed Project would not 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.

As shown in Draft EIR Table 3.1-8, *Maximum Daily Unmitigated Regional Construction Emissions (Pounds Per Day)*, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the SCAQMD numeric thresholds. These calculations include compliance with appropriate dust control measures mandated to be implemented during each phase development, as required under SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-2 through SC-AQ-4. As previously discussed, SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications. SC-AQ-3 would implement methods for reducing onsite dust emissions during soil removal. SC-AQ-4 is intended to reduce construction exhaust and fugitive dusts emissions with a number of features including utilizing off-road construction equipment that is compliant with Tier 3 engine standards (at a minimum) and applying soil stabilizers. SC-AQ-4 requires that Tier 3- or Tier 4-compliant off-road construction equipment be used during construction. LAUSD would require that all equipment meet Tier 4 standards when feasible and equipment is available. Where Tier 4 equipment is not feasible or available for use on the proposed Project, Tier 3-compliant equipment will be

required. As the possibility of Tier 3 equipment exists, construction emissions were estimated assuming Tier 3 equipment as a worst-case emissions estimate. Therefore, impacts would be less than significant with respect to regional emissions from construction activities.

- The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

As shown in Draft EIR Table 3.1-9, *Maximum Unmitigated Localized Construction Emissions (Pounds per Day)*, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Application of D SC-AQ-2, SC-AQ-3, and SC-AQ-4 would reduce localized air pollutant emissions construction equipment exhaust combined with fugitive dust particulate matter emissions generated. Therefore, impacts would be less than significant during construction with respect to localized emissions from construction activities.

As shown in Draft EIR Table 3.1-10, *Maximum Unmitigated Localized Operations Emissions (Pounds per Day)*, unmitigated maximum localized operation emissions exposure to the nearest sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM_{2.5}, and PM₁₀.

SC-AQ-1 requires preparation of an HRA for new campus locations that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions (e.g., permitted and nonpermitted stationary sources, freeways and other busy traffic corridors, railyards, and large agricultural operations). Under SC-AQ-1, for freeways and other busy traffic corridors within 500 feet, air dispersion modeling must be used to make the health risk determination. If the HRA does not find that health risks are below criteria thresholds, the school campus shall be redesigned to a site farther from the emissions generator. The trigger for compliance for SC-AQ-1 in the 2023 update to the Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects is new classrooms or outdoor play areas within 0.25-mile of mobile and stationary emission sources, on the LAUSD priority list of schools most at risk from air pollution, and near an OEHS-identified high-risk facility.

A clarification has been made to Section 3.1, *Air Quality*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include SC-AQ-1 as an applicable standard condition for the proposed Project due to the Project's inclusion of new classrooms and outdoor play areas.

Response to Comment No. 4-2

A landscape buffer will be included in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include this element as part of the Project Description.

As stated in Draft EIR Section 2.6.6, *Landscape Improvements*, the proposed Project would include new landscaped areas that contribute to meeting the District Board's goal of 30 percent landscaped areas. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) specifying that the proposed landscaped areas would include a landscaped buffer within the southeastern portion of the Campus along Marguerite Street that creates a visual buffer to the campus and helps improve air quality and shield particulate matter (PM) from the nearby SR 2 freeway.

As shown in Draft EIR Table 3.1-8, *Maximum Daily Unmitigated Regional Construction Emissions (Pounds Per Day)*, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the SCAQMD numeric thresholds. The Draft EIR found that impacts would be less than significant with respect to regional emissions from construction activities. As shown in Draft EIR Table 3.1-9, *Maximum Unmitigated Localized Construction Emissions (Pounds per Day)*, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Application of LAUSD SC-AQ-2, SC-AQ-3, and SC-AQ-4 would reduce localized air pollutant emissions construction equipment exhaust combined with fugitive dust particulate matter emissions generated. The Draft EIR found that impacts would be less than significant during construction with respect to localized emissions from construction activities. Therefore, mitigation is not required to reduce Project impacts to below significance thresholds.

As the trigger for compliance for SC-AQ-1 in the 2023 update to the Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects is new classrooms or outdoor play areas within 0.25-mile of mobile and stationary emission sources, on the LAUSD priority list of schools most at risk from air pollution, and near an OEHS-identified high-risk facility, a clarification has been made to Section 3.1, *Air Quality*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include SC-AQ-1 as an applicable standard condition for the proposed Project.

Response to Comment No. 4-3

A landscape buffer will be considered in the design along the property boundaries impacted by the Project, including the Marguerite Street property edge. A clarification has been made to Chapter 2, *Project Description*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) specifying that the proposed landscaped areas would include a landscaped buffer within the southeastern portion of the Campus along Marguerite Street that creates a visual buffer to the campus and helps improve air quality and shield particulate matter (PM) from the nearby SR 2 freeway.

The proposed Project would be required to comply with SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-1, SC-AQ-2, SC-AQ-3, and SC-AQ-4. As shown in Draft EIR Table 3.1-8, *Maximum Daily Unmitigated Regional Construction Emissions (Pounds Per Day)*, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be below the South Coast Air Quality Management District (SCAQMD) numeric thresholds. The Draft EIR found that impacts would be less than significant with respect to regional emissions from construction activities. As shown in Draft EIR Table 3.1-9, *Maximum Unmitigated Localized Construction Emissions (Pounds per Day)*, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. application of LAUSD SC-AQ-2, SC-AQ-3, AND SC-AQ-4 would reduce localized air pollutant emissions construction equipment exhaust combined with fugitive dust particulate matter emissions generated. The Draft EIR found that impacts would be less than significant during construction with respect to localized emissions from construction activities. Therefore, mitigation is not required to reduce Project impacts to below significance thresholds.

As the trigger for compliance for SC-AQ-1 in the 2023 update to the Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects is new classrooms or outdoor play areas within 0.25-mile of mobile and stationary emission sources, on the LAUSD priority list of schools most at risk from

air pollution, and near an OEHS-identified high-risk facility, a clarification has been made to Section 3.1, *Air Quality*, of the Draft EIR (see Chapter 8, *Errata*, of the Final EIR) to include SC-AQ-1 as an applicable standard condition for the proposed Project.

LAUSD acknowledges receipt of the attached information from an Air Quality webinar through Green Schoolyards America with an EPA scientist, as well as some practical recommendations found in an EPA publication. This information will be taken into consideration by the District Board during their decision-making process.

CHAPTER 10

Mitigation Monitoring and Reporting Program

10.1 Introduction

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a “reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” In addition, Section 15097(a) of the State California Environmental Quality Act (CEQA) Guidelines requires that a public agency adopt a program for monitoring or reporting mitigation measures and project revisions, which it has required to mitigate or avoid significant environmental effects. This MMRP has been prepared in compliance with the requirements of CEQA, Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines.

The Los Angeles Unified School District (LAUSD, or District) is the Lead Agency for the proposed Project and therefore is responsible for administering and implementing the MMRP.

The proposed Project and all other LAUSD School Upgrade Program-related projects are required to comply with design standards, conditions, and sustainable building practices. Certain standards assist in reducing environmental impacts, such as the LAUSD Standard Conditions of Approval (SCs),¹ as applicable by incorporating features and conditions into the Project definition and design.

LAUSD SCs are uniformly applied development standards that were compiled from established LAUSD standards, guidelines, specifications, practices, plans, policies, and programs. The SCs were adopted by the LAUSD Board of Education in December 2023.² The SCs have been updated since the adoption of the 2023 version in order to incorporate and reflect changes in the recent laws, regulations, and the LAUSD’s standard policies, practices, and specifications. The conditions are divided into the 21 LAUSD CEQA environmental topics (Appendix G of the CEQA Guidelines plus Pedestrian Safety). For each SC, compliance is triggered by factors such as the project type, existing conditions, and type of environmental impact.

An Environmental Impact Report (EIR) has been prepared to address the potential environmental impacts of the proposed Project. The evaluation of the proposed Project’s impacts in the EIR takes into consideration the SCs, which were voluntarily incorporated into the project description, and applies mitigation measures needed to avoid or reduce potentially significant environmental impacts. This MMRP, shown in **Table 10-1** below, is designed to monitor implementation of the SCs and mitigation measures (MM) identified for the proposed Project.

¹ Los Angeles Unified School District. 2023. Los Angeles Unified School District Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects. https://www.lausd.org/cms/lib/CA01000043/Centricity/domain/135/ceqa/2023_Standard_Conditions_UPDATE_Final.pdf

² Los Angeles Unified School District. 2023. *Subsequent Program EIR for the School Upgrade Program*. <http://achieve.lausd.net/ceqa>.

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**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<p>3.1 Air Quality</p> <p>SC-AQ-1: LAUSD shall complete a Health Risk Assessment for new campus locations that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions.</p> <p>LAUSD shall identify all permitted and non-permitted stationary sources, freeways and other busy traffic corridors, railyards, and large agricultural operations within 0.25 mile of the project. Once identified, make a determination about the need for qualitative evaluation, screening level evaluation in accordance with air district specific guidance and tools, or a refined evaluation with air dispersion modeling, to determine the if risks constitute an actual or potential endangerment of public health to persons who would attend or be employed at the school. For freeways and other busy traffic corridors within 500 feet, air dispersion modeling must be used to make the health risk determination (no screening, no qualitative discussion, etc.).</p> <p>The Health Risk Assessment shall comply with 'Air Toxics Health Risk Assessment (HRA)'. This document includes guidance on HRA protocols for permitted, non-permitted, and mobile sources that might reasonably be anticipated to emit hazardous air emissions and result in potential long-term and short-term health impacts to student and staff at the school site.</p> <p>The HRA must find that health risks are below criteria thresholds. If health risks which exceed air district criteria thresholds are identified, the school campus shall be redesigned or relocated to a site farther from the emissions generator.</p>	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD, Facilities Services Division			
<p>SC-AQ-2: Construction Contractor shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications, to ensure excessive emissions are not generated by unmaintained equipment.</p>	During construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Facilities Services Division			
<p>SC-AQ-3: Construction Contractor shall:</p> <ul style="list-style-type: none"> • Maintain speeds of 15 miles per hour (mph) or less with all vehicles. • Load impacted soil directly into transportation trucks to minimize soil handling. • Water/mist soil as it is being excavated and loaded onto the transportation trucks. • Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site. • Minimize soil drop height into haul trucks or stockpiles during dumping. • During transport, cover or enclose trucks transporting soils, increase freeboard requirements, and repair trucks exhibiting spillage due to leaks. • Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed. • Place stockpiled soil on polyethylene sheeting and cover with similar material. • Place stockpiled soil in areas shielded from prevailing winds. 	During construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD, Facilities Services Division			
<p>SC-AQ-4: LAUSD shall analyze air quality impacts:</p> <p>If site-specific review or monitoring data of a school construction project identifies potentially significant adverse regional and localized construction air quality impacts, then LAUSD shall implement all feasible measures to reduce air emissions below the South Coast Air Quality Management District's (SCAQMD) regional and localized significance thresholds.</p> <p>Construction bid contracts shall include protocols that reduce construction emissions during high-emission construction phases from vehicles and other fuel driven construction engines, activities that generate fugitive dust, and surface coating operations. The Construction Contractor shall be responsible for documenting compliance with the identified protocols. Specific air emission reduction protocols include, but are not limited to, the following.</p> <p><u>Exhaust Emissions</u></p> <ul style="list-style-type: none"> • Schedule construction activities that affect traffic flow to off-peak hours (e.g. between 10:00 AM and 3:00 PM). • Consolidate truck deliveries and limit the number of haul trips per day. 	During construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD, Facilities Services Division			

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<ul style="list-style-type: none"> Route construction trucks off congested streets, as permitted by local jurisdiction haul routes. Employ high pressure fuel injection systems or engine timing retardation. Use ultra-low sulfur diesel fuel, containing 15 ppm sulfur or less (ULSD) in all diesel construction equipment. Use construction equipment rated by the United States Environmental Protection Agency as having at least Tier 4 (model year 2008 or newest available model) emission limits for engines between 50 and 750 horsepower. Restrict non-essential diesel engine idle time, to not more than five consecutive minutes. Use electrical power rather than internal combustion engine power generators. Use electric or alternatively fueled equipment, as feasible. Use construction equipment with the minimum practical engine size. Use low-emission on-road construction fleet vehicles. Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. <p><u>Fugitive Dust</u></p> <ul style="list-style-type: none"> Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for 10 days or more). Replace ground cover in disturbed areas as quickly as possible. Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. Pave unimproved construction roads that have a traffic volume of more than 50 daily trips by construction equipment, and/or 150 daily trips for all vehicles. Pave all unimproved construction access roads for at least 100 feet from the main road to the project site. Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications to exposed piles (i.e., gravel, dirt, and sand) with a 5% or greater silt content. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph). Water disturbed areas of the active construction and unpaved road surfaces at least three times daily, except during periods of rainfall. Limit traffic speeds on unpaved roads to 15 mph or less. Prohibit fugitive dust activities on days where violations of the ambient air quality standard have been forecast by SCAQMD. Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials. Limit the amount of daily soil and/or demolition debris loaded and hauled per day. <p><u>General Construction</u></p> <ul style="list-style-type: none"> Use ultra-low VOC or zero-VOC surface coatings. Phase construction activities to minimize maximum daily emissions. Configure construction parking to minimize traffic interference. Provide temporary traffic control during construction activities to improve traffic flow (e.g., flag person). Prepare and implement a trip reduction plan for construction employees. Implement a shuttle service to and from retail services and food establishments during lunch hours. Increase distance between emission sources to reduce near-field emission impacts. 						

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
3.2 Cultural Resources						
MM-CUL-1. To communicate information on the historic development and character of Irving MS, including the Administration Building, an Interpretative Program shall be developed and implemented. This Interpretive Program shall be accessible to the general public and include information on the history and architecture of the Campus (both exterior and interior), from the founding of the City (1781, incorporated 1850) until 1939, when the contributing buildings were completed. A historical architect, historian, or architectural historian who meets the Secretary of the Interior's professional qualifications shall be engaged to research and write the information to be provided in the Interpretive Program. The Interpretive Program shall be initiated within 1 year of the approval of the proposed Project and shall be completed by substantial completion of construction.	Design/Construction	LAUSD, Office of Environmental Health and Safety	A historical architect, historian, or architectural historian who meets the Secretary of the Interior's professional qualifications			

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<p>SC-CUL-1: Historic Architect</p> <p>For projects involving structural upgrades to historic resources, the Design Team shall include a qualified Historic Architect with demonstrated project-level experience in historic projects.</p> <p>For campuses with qualifying historical resources under CEQA, the Design Team shall include a LAUSD-qualified Historic Architect. The Historic Architect/s shall meet the Secretary of the Interior’s Professional Qualifications Standards and the standards described on page 8 of the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.</p> <p>Throughout the project design progress the Historic Architect shall provide input to ensure compliance with the Secretary of the Interior’s Standards for the Treatment of Historic Properties and LAUSD requirements and guidelines for the treatment of historical resources.</p> <p>Role of the Historic Architect</p> <p>The tasks of the Historic Architect on the Design Team shall include, but are not limited to:</p> <ul style="list-style-type: none"> • The Historic Architect shall work with the Design Team (including the Structural Engineer) and LAUSD to ensure that project components, including new construction and modernization of existing facilities, comply with the Secretary of the Interior’s Standards for the Treatment of Historic Properties and LAUSD Design Guidelines and Treatment Approaches for Historic Schools. The Historic Architect shall work with the Design Team and LAUSD throughout the design process to develop project options that facilitate compliance with the applicable historic preservation standards. • For new construction, the Historic Architect shall work with the Design Team and LAUSD to identify options and opportunities for: (1) ensuring compatibility of scale and character for new construction, site and landscape features, and circulation corridors, and (2) ensuring that new construction is designed and sited in such a way that reinforces and strengthens, as much as feasible, character-defining site plan features, landscaping, and circulation corridors throughout campus. • For modernization and upgrade projects involving contributing (significant) buildings or features, the Historic Architect shall work with the Design Team and LAUSD to ensure that specifications for design and implementation of projects comply with the applicable historic preservation standards. • The Historic Architect shall participate in Design Team meetings during all phases of the project through 100% construction drawings, pre-construction, and construction phases, as applicable. • The Historic Architect shall prepare a memo at the 50% and at the 100% construction drawings stages, demonstrating how principal project components and treatment approaches comply with applicable historic preservation standards, including the Secretary of the Interior’s Standards for the Treatment of Historic Properties and LAUSD Design Guidelines and Treatment Approaches for Historic Schools. The memos shall be submitted to LAUSD OEHS for review. • The Historic Architect shall participate in pre-construction and construction monitoring activities, as appropriate, to ensure continuing conformance with Secretary’s Standards and/or avoidance of a material impairment of the historical resources. • The Historic Architect shall provide specifications for architectural features or materials requiring restoration or removal, maintaining and protecting relevant features in place, or on-site storage. Specifications shall include detailed drawings or instructions where historic features may be impacted. • The Design Team and Historic Architect shall be responsible for incorporating LAUSD’s recommended updates and revisions during the design development and review process. 	<p>During project design, pre-construction, and construction (Planning, Construction)</p>	<p>LAUSD, Office of Environmental Health and Safety</p>	<p>LAUSD – Facilities Services Division</p>			

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<p>SC-CUL-2: LAUSD shall follow the guidelines outlined in these documents to the maximum extent practicable when planning and implementing projects and adjacent new construction involving historical resources.</p> <p>The Design Team, Historic Architect, and Construction Contractor shall apply LAUSD School Design Guide and LAUSD Design Guidelines and Treatment Approaches for Historic Schools and the Secretary’s Standards for all new construction and modernization projects. In keeping with the District’s adopted policies and goals, historical resources shall be reused rather than destroyed, where feasible.</p> <p>General guidelines include:</p> <ul style="list-style-type: none"> Retain and preserve the character of historic resources. Repair rather than remove, replace, or destroy character-defining features; if replacement is necessary, replace in-kind to match materials, dimensions, and appearance. Treat distinctive architectural features or examples of skilled craftsmanship that characterize a building with sensitivity. Where practical, conceal reinforcement required for structural stability or the installation of life safety or mechanical systems. <p>Where necessary to halt deterioration and after the preparation of a condition assessment, undertake surface cleaning, preparation of surfaces, and other projects involving character-defining features using the least invasive, gentlest means possible. Avoid using any abrasive materials or methods including sandblasting and chemical treatments.</p>	<p>During project design, design development, pre-construction, and construction (Planning, Construction)</p>	<p>LAUSD, Office of Environmental Health and Safety</p>	<p>LAUSD, Office of Environmental Health and Safety</p> <p>LAUSD – Facilities Services Division</p>			
<p>SC-CUL-3: Prior to any major alteration to or adjacent to a historic resource that may potentially damage historic resources (or previously identified historic features), the Historic Architect shall develop a Temporary Protection Plan that identifies potential risks to the historic resource. The Temporary Protection Plan shall be prepared in coordination with the Construction Contractor and LAUSD prior to demolition or construction. The Temporary Protection Plan may include, but not be limited to, the following components:</p> <ul style="list-style-type: none"> Notation of the historic resource on construction plans. Pre-construction survey to document the existing physical condition of the historic resource. Procedures and timing for the placement and removal of temporary protection features, around the historic resource. Monitoring of the installation and removal of temporary protection features by the Historic Architect, or designee. Post-construction survey to document the condition of the historic resource after Project completion. <p>Preparation of a technical memorandum documenting the pre-construction and post-construction conditions of the historic resource and compliance with protective measures outlined Temporary Protection Plan.</p>	<p>Prior to demolition or major alteration (Planning, Pre-Construction, Construction)</p>	<p>LAUSD, Office of Environmental Health and Safety</p>	<p>LAUSD, Office of Environmental Health and Safety</p> <p>LAUSD – Facilities Services Division</p>			

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<p>SC-CUL-4: Prior to significant alteration or demolition of a historical resource, LAUSD shall retain an Architectural Photographer and/or a Historian or Architectural Historian who meet the Secretary of the Interior’s Professional Qualifications Standards and who shall prepare a HABS-like Historic Documentation Package (Package).</p> <p>The Package shall include photographs and descriptive narrative. Documentation will draw upon primary- and secondary-source research including available studies prepared for the property (measured drawings are not required). The specifications for the Package include:</p> <ul style="list-style-type: none"> • Photographs: Photographic documentation shall focus on the historical resources/features proposed to be significantly altered or demolished, with overview and context photographs for the campus and adjacent setting. A professional-quality camera will be used to take photographs of interior and exterior features of the buildings. Photographs will include context views, elevations/exteriors, architectural details, overall interiors, and interior details (if warranted). Digital photographs will be in black and white (as well as in color or as requested by the District) and provided in an electronic format. • Descriptive and Historic Narrative: The Historian or Architectural Historian shall prepare descriptive and historic narrative of the historical resources/features. Physical descriptions will detail each resource, elevation by elevation, with accompanying photographs and information on how the resource fits within the broader campus during its period of significance. The historic narrative will include available information on the campus design, history, architect/contractor/designer as appropriate, history of the area, and historic context. In addition, the narrative will include a methodology section specifying the name of researcher, date of research, and sources/archives visited, as well as a bibliography. Within the written history, statements shall be footnoted as to their sources, where appropriate. <p>Historic Documentation Package Submittal: Upon completion of the descriptive and historic narrative, all materials will be compiled in electronic format and presented to LAUSD for review and comment. Upon approval, one electronic copy and one hard copy shall be submitted to LAUSD OEHS. Photographs will be individually labeled and provided to LAUSD in electronic format.</p>	Prior to demolition or major alteration (Planning, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety			
<p>SC-CUL-5: LAUSD shall comply with Design Specification 01 3591, Historic Treatment Procedures, as applicable. This Specification requires the Construction Contractor to submit a Historic Treatment Plan to the District for the protection, repair, and replacement of historic materials and features.</p>	Prior to demolition or alteration (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-CUL-6: LAUSD shall retain a qualified Archaeologist to be available on-call. The Archaeologist shall meet the Secretary of the Interior’s Professional Qualifications Standards (48 Federal Register 44738–39). The archaeologist must have knowledge of both prehistoric and historical archaeology.</p> <p>To reduce impacts to previously undiscovered buried archaeological resources, following completion of the final grading plan and prior to any ground disturbance, a qualified archaeologist shall prepare an Archaeological Monitoring Program as described under SC-CUL-7.</p>	Prior to and during ground disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

**TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
<p>SC-CUL-7: The Construction Contractor shall halt construction activities within a 30 foot radius of the find and shall notify the LAUSD.</p> <ul style="list-style-type: none"> • LAUSD shall retain an Archaeologist that meets the Secretary of the Interior’s Professional Qualifications Standards (48 Federal Register 44738–39). The archaeologist must have knowledge of both prehistoric and historical archaeology. • The Archaeologist shall have the authority to halt any project-related construction activities that could impact potentially significant resources. • The Archaeologist shall be afforded the necessary time to recover and assess the find. Ground-disturbing activities shall not continue until the discovery has been assessed by the Archaeologist. With monitoring, construction activities may continue on other areas of the project site during evaluation and treatment of historic or unique archaeological resources. • If the find is determined to be of value, the Archaeologist shall prepare an Archaeological Monitoring Program and shall monitor the remainder of the ground-disturbing activities. • Significant archaeological resources found shall be curated as determined necessary by the Archaeologist and offered to a local museum or repository willing to accept the resource. • Archaeological reports shall be submitted to the South Central Coastal Information Center at the California State University, Fullerton. • The Archaeological Monitoring Plan shall include: <ul style="list-style-type: none"> ○ Extent and duration of the monitoring based on the grading plans ○ At what soil depths monitoring of earthmoving activities shall be required ○ Location of areas to be monitored ○ Types of artifacts anticipated ○ Procedures for temporary stop and redirection of work to permit sampling, including anticipated radius of suspension of ground disturbances around discoveries and duration of evaluation of discovery to determine whether they are classified as unique or historical resources ○ Procedures for maintenance of monitoring logs, recovery, analysis, treatment, and curation of significant resources ○ Procedures for archaeological resources sensitivity training for all construction workers involved in moving soil or working near soil disturbance, including types of archaeological resources that might be found, along with laws for the protection of resources. The sensitivity training program shall also be included in a worker’s environmental awareness program that is prepared by LAUSD with input from the Archaeologist, as needed. ○ Accommodation and procedures for Native American monitors, if required. ○ Procedures for discovery of Native American cultural resources. • The construction manager shall adhere to the stipulations of the Archaeological Monitoring Plan. 	During ground-disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-CUL-8: Cultural resources sensitivity training shall be conducted for all construction workers involved in ground-disturbing activities. This training shall review the types of archaeological resources that might be found, along with laws for the protection of resources and shall be included in a worker’s environmental awareness program that is prepared by LAUSD with input from a qualified Archaeologist, as needed.</p>	Prior to the start of grading, excavation, or other ground-disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-CUL-9: LAUSD shall determine whether it is feasible to prepare and implement a Phase III Data Recovery/Mitigation Program. If feasible, the Archaeologist shall prepare a Phase III Data Recovery/Mitigation Program to outline procedures to recover a statistically valid sample of the archaeological remains and to document the site and reduce impacts to be less than significant. All documentation shall be prepared in the standard format of the ARMR Guidelines, as prepared by the OHP. Once a Phase III Data Recovery/Mitigation Program is completed, an Archaeological Monitor shall be present to oversee the ground-disturbing activities to ensure that construction proceeds in accordance with the Program.</p>	During ground-disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

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Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
				Initials	Date	Remarks
SC-CUL-10: All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified Archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.	During ground-disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
SC-GEO-2: LAUSD shall retain a Paleontological Monitor to oversee specific ground-disturbing activities as determined by the scope of work and final grading plan. The Monitor shall provide the construction crew(s) with a brief summary of the sensitivity, the rationale behind the need for protection of these resources, and information on the initial identification of paleontological resources. If paleontological resources are uncovered, the Construction Contractor shall halt construction activities within a 30 foot radius of the find and shall notify the LAUSD. <ul style="list-style-type: none"> • Ground-disturbing activities shall not continue until the discovery has been assessed by the Paleontologist. • The paleontologist shall have the authority to halt construction activities to allow a reasonable amount of time to identify potential resources. • Significant resources found shall be curated as determined necessary by the Paleontologist. 	During ground-disturbing activities (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
3.3 Greenhouse Gas Emissions						
SC-GHG-1: During operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping, and tanks to minimize water loss.	During operation (Post-Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			
SC-GHG-2: LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the early morning hours to reduce water loss from evaporation.	Prior to full operation of irrigation system (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			
SC-GHG-3: LAUSD shall reset automatic sprinkler timers to water less during cooler months and rainy season.	Prior to full operation of irrigation system (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			
SC-GHG-4: LAUSD shall develop a water budget for landscape (both non-recreational and recreational) and ornamental water use to conform to the local water efficient landscape ordinance. If no local ordinance is applicable, then use the landscape and ornamental budget outlined by the California Department of Water Resources.	Prior to full operation of irrigation system (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			
SC-GHG-5: LAUSD shall ensure that the designed time dependent valued energy shall be at least 10%, with a goal of 20% less than a standard design that is in minimum compliance with the California Title 24, Part 6 energy efficiency standards that are in force at the time the project is submitted to the Division of the State Architect.	Prior to occupancy (Planning, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			

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<p>SC-USS-1: Consistent with current LAUSD requirements for recycling construction and demolition waste, the Construction Contractor shall implement the following solid waste reduction efforts during construction and demolition activities:</p> <p>School Design Guide.</p> <p>Establishes a minimum non-hazardous construction and demolition (C&D) debris recycling requirements of 75% by weight. Construction and demolition waste shall be recycled to the maximum extent feasible.</p> <p>Construction & Demolition Waste Management.</p> <p>This document outlines procedures for preparation and implementation, including reporting and documentation, of a Waste Management Plan for reusing, recycling, salvaging or disposal of non-hazardous waste materials generated during demolition and/or new construction to foster material recovery and re-use and to minimize disposal in landfills. Requires the collection and separation of all C&D waste materials generated on-site, reuse or recycling on-site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling, salvaging and/or reusing a minimum of 75% of the C&D waste generated by weight.</p>	Prior to start and during construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD – Facilities Services Division			
3.4 Hazards & Hazardous Materials						
<p>MM-HAZ-1: Soil Management Plan. A soil management plan shall be required for all earth-moving construction activities conducted at the site. The purpose of the soil management plan is to provide guidance for identifying impacted soil and the proper handling, onsite management, and disposal of impacted soil that may be encountered during construction activities. The soil management plan shall be prepared by a licensed State of California Civil Engineer or Professional Geologist. The soil management plan shall include the following sections at a minimum.</p> <ul style="list-style-type: none"> • Introduction • Background • Potential Contaminants of Concern • Contaminated Soil Management • Health and Safety • Excavation/Grading Contractor • Identification of Contaminated Soil • Excavation and Handling of Contaminated Soil • Soil Staging • Dust Mitigation and Track-Out Controls • Stormwater Management • Waste Characterization and Profiling • Transportation Requirements and Procedures • Requirements for Haulers • Truck Loading Operations • Transportation Route • Traffic Control Procedures • Shipment Documentation • Contingency Plan • Soil Sampling and Analysis Protocol • Confirmation Soil Sampling • Screening Levels • Actions Based on Soil Results • Reporting • References <p>Before excavation or other soil-disturbing activities begin, a preparatory inspection must be conducted by the Contractor to ensure the proper soil management provisions, including initiation of the DigAlert notification(s) and stormwater Best Management Practices (BMPs) are evaluated.</p>	During project design and construction (Planning, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

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Mitigation Measure (MM) / Standard Condition of Approval (SC)	Monitoring Phase	Enforcement Agency	Responsible Monitoring Agency	Verification		
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<p>MM-HAZ-2: SCAQMD Rule 1166 Monitoring During Soil Excavation – Implementation of the soil management plan shall include precautions and monitoring for soil potentially impacted by chemicals of concern previously identified. This mitigation measure specifically addresses air monitoring requirements during the underground storage tank (UST) removal activities prior to excavation and grading activities conducted during building renovation. During the UST removal activities air monitoring shall be implemented using a Photo-ionization Detector (PID) to monitor for volatile organic compounds (VOCs). The PID shall have a 11.7 eV lamp and shall be calibrated daily using the manufacturer suggested calibration gas. If soil releasing VOCs above 50 parts per million by volume (ppmv) is identified, the South Coast Air Quality Management District (SCAQMD) shall be notified regarding the renovation work at the subject property. A site-specific permit shall be obtained for the Project due its location at a school property. Excavation activities shall be performed in compliance with all applicable SCAQMD regulations.</p>	Pre-Construction, Construction	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>MM-HAZ-3: Dust Control Plan – A dust control plan shall be required for all construction activities conducted on the site. The primary dust control requirement is for no visible dust to exit the site during construction activities.</p> <p>Dust control measures will be required daily during earth-moving activities to limit emissions of fugitive dust generated by their activities. The contractor is responsible for meeting requirements specified in Rule 403 and implementing reasonable Best Available Control Measures (BACMs) to minimize dust emissions. The following dust control measures shall be implemented to stabilize exposed surfaces and minimize suspended or tracked dust particles:</p> <ul style="list-style-type: none"> • Apply water to excavation areas to minimize dust generated by vehicles, trucks, and heavy equipment. • Apply water to the staged soil piles before and during loading of trucks, and after completion of loading for the day. • Adequately tarp truck trailers, and clean truck tires as necessary prior to leaving the Site. Place shaker plates on the ingress and egress routes to the Site. • Cover and secure staged soil piles at the end of each day. <p>Wind speed and wind direction shall be monitored at 15-minute intervals using a tripod-mounted weather station with data logging capabilities.</p> <p>Airborne particulate monitoring shall be conducted with aerosol monitors near the property boundary at locations upwind (one) and downwind (one) of excavation activities with an aggregate particle diameter of 10 microns or less (PM₁₀). The monitors shall provide real-time concentration and median particle size information and shall log the data at one-minute intervals for the duration of the monitoring period. The dust monitors shall be zeroed daily and an action level of 25 micrograms per cubic meter (µg/m³) (per Rule 1466) shall be established and measured as the difference between upwind and downwind monitors.</p>	During project design and construction (Planning, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>MM-HAZ-4: Compliance Inspections – Site compliance inspections of the working areas shall be conducted by the Environmental Consultant or designated site manager to determine if any failed compliance has occurred. Stop-work orders shall be promptly issued if any failed compliance has occurred and corrective actions shall be immediately implemented to address the noncompliant issue.</p>	Construction	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-HAZ-1: LAUSD shall determine the proximity of electromagnetic field (EMF) generators to new classrooms or outdoor play areas to ensure the EMF generator does not pose a threat.</p> <p>Criteria for School Siting in Proximity to High Voltage Power Lines or Cell Towers</p> <p>Board of Education resolutions (Effects of Non-Ionizing Radiation-2000, Wireless Telecommunication Installations – 2009 and T-Mobile – Cell Tower Notification and Condemnation-2009) regarding electromagnetic field (EMF) and radio frequency exposures associated with cellular towers near schools whereby a prohibition exists regarding siting towers on school campuses. LAUSD’s screening perimeter for new classroom construction or outdoor play area is 200 feet from cell towers and 500 feet from high voltage power lines.</p>	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety			

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<p>SC-HAZ-2: LAUSD shall determine the proximity of new classrooms or outdoor play areas to ensure that these new facilities are placed outside of the established exclusion zone.</p> <p>Pipeline Safety Hazard Analysis</p> <p>This document outlines the process for evaluating safety hazards associated with underground and above-ground natural gas and hazardous liquid pipelines. The pipeline safety hazard assessment (PSHA) process determines whether potential releases of natural gas, petroleum product, and crude oil from pipelines located near a school site pose a safety risk to students and staff.</p>	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety			
<p>SC-HAZ-3: LAUSD shall prepare a Rail Safety Study (RSS) for the construction of any new classrooms or outdoor play areas that would be located within 1,500 feet of an existing rail line. For construction on existing campuses, if a proposed scope of work has the potential to exacerbate a safety hazard, a RSS will be triggered.</p> <p>Rail Safety Study Protocol</p> <p>This document provides a guidance protocol for conducting a RSS. It is designed to assist in evaluating whether traffic on rail lines within a 1,500-foot radius of a school site poses an unreasonable safety hazard to students and staff at the school.</p>	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety			
<p>SC-HAZ-4: The Construction Contractor shall comply with the following OEHS Site Assessment practices and requirements (as applicable):</p> <ul style="list-style-type: none"> • District Specification Section 01 4524, Environmental Import / Export Materials Testing. • Removal Action Workplan or Remedial Activities Workplan. • California Air Resources Board Rule 1466. • Guidelines and Procedures to Address Polychlorinated Biphenyls (PCBs) in Building Materials - particularly applicable to buildings that were constructed or remodeled between 1959 and 1979. • Lead and asbestos abatement requirements identified by the Facilities Environmental Technical Unit (FETU) in the Phase I / Phase II, or abatement plan(s). 	During construction (Pre-Construction, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
3.5 Noise						
<p>SC-N-1: LAUSD shall design new buildings and other noise-generating sources to include features such as sound walls, building configuration, and other design features that attenuate exterior noise levels on a school campus to less than 67 dBA Leq.³</p>	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

³ L10 value represents the noise level that is exceeded 10% of the time or 6 minutes in an hour.

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<p>SC-N-2: LAUSD shall analyze the acoustical environment of the site (such as traffic) and the characteristics of planned building components (such as Heating, Ventilation, and Air Conditioning [HVAC]), and designs shall achieve interior classroom noise levels of less than 45 dBA L_{eq} with a target of 40 dBA L_{eq} (unoccupied), and a reverberation time of 0.6 seconds. Noise reduction methods shall include, but are not limited to, sound walls, building and/or classroom insulation, HVAC modifications, double-paned windows, and other design features.</p> <ul style="list-style-type: none"> • New construction should achieve classroom acoustical quality consistent with the current School Design Guide and CHPS (California High Performance Schools) standard of 45 dBA L_{eq}. • New HVAC installations should be designed to achieve the lowest possible noise level consistent with the current School Design Guide. HVAC systems shall be designed so that noise from the system does not cause the ambient noise in a classroom to exceed the current School Design Guide and CHPS standard of 45 dBA L_{eq}. • Modernization of existing facilities and/or HVAC replacement projects should improve the sound performance of the HVAC system over the existing system. • The District's purchase of new units should give preference to HVAC manufacturers that sell the lowest noise level units at the lowest cost. • Existing HVAC units operating in excess of 45 dBA L_{eq} inside classrooms should be modified 	During project design (Planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-N-3: LAUSD shall incorporate long-term permanent noise attenuation measures between new playgrounds, stadiums, and other noise-generating facilities and adjacent noise-sensitive land uses, to reduce noise levels to meet jurisdictional standards or an increase of 3 dB or less over ambient.</p> <p>Operational noise attenuation measures include, but are not limited to:</p> <ul style="list-style-type: none"> • Buffer zones; • Berms; • Sound barriers; • Buildings; • Masonry walls; • Enclosed bleacher foot wells; and/or • Other site-specific project design features 	During project design and construction (Planning, Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-N-4: LAUSD or its Construction Contractor shall consult and coordinate with the school principal or site administrator, and other nearby noise sensitive land uses prior to construction to schedule high noise or vibration producing activities to minimize disruption. Coordination between the school, nearby land uses and the Construction Contractor shall continue on an as-needed basis throughout the construction phase of the project to reduce school and other noise sensitive land use disruptions.</p>	Prior to and during construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-N-5: LAUSD shall require the Construction Contractor to minimize blasting for all demolition and construction activities, where feasible.</p>	During construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>SC-N-6: For projects where pile driving activities are required within 150 feet of a structure, a detailed vibration assessment shall be provided by an acoustical engineer to analyze potential impacts related to vibration to nearby structures and to determine feasible mitigation measures to eliminate potential risk of architectural damage.</p>	During construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

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				Initials	Date	Remarks
<p>SC-N-7: LAUSD shall meet with the Construction Contractor to discuss alternative methods of demolition and construction for activities within 25 feet of a historic building to reduce vibration impacts. During the preconstruction meeting, the Construction Contractor shall identify demolition methods not involving vibration-intensive construction equipment or activities. For example: sawing into sections that can be loaded onto trucks results in lower vibration levels than demolition by hydraulic hammers.</p> <ul style="list-style-type: none"> • Prior to construction activities, the Construction Contractor shall inspect and report on the current foundation and structural condition of the historic building. • The Construction Contractor shall implement alternative methods identified in the preconstruction meeting during demolition, excavation, and construction, such as mechanical methods using hydraulic crushers or deconstruction techniques. • The Construction Contractor shall avoid use of vibratory rollers and packers adjacent to the building. • During demolition, the Construction Contractor shall not phase any ground-impacting operations near the building to occur at the same time as any ground impacting operation associated with demolition and construction. <p>During demolition and construction, if any vibration levels cause cosmetic or structural damage to the building or structure, a “stop-work” order shall be issued to the Construction Contractor immediately to prevent further damage. Work shall not restart until the building is stabilized and/or preventive measures to relieve further damage to the building are implemented.</p>	Prior to and during construction (Construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

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<p>SC-N-8: Projects within 500 feet of a non-LAUSD sensitive receptor, such as a residence, shall be reviewed by OEHS to determine what, if any, feasible project specific noise reduction measures are needed.</p> <p>The Construction Contractor shall implement project specific noise reduction measures identified by OEHS. Noise reduction measures may include, but are not limited to, the following:</p> <p><u>Source Controls</u></p> <ul style="list-style-type: none"> • Time Constraints – prohibiting work during sensitive nighttime hours. • Scheduling – performing noisy work during less sensitive time periods (on operating campus: delay the loudest noise generation until class instruction at the nearest classrooms has ended; residential: only between 7:00 AM and 7:00 PM). • Equipment Restrictions – restricting the type of equipment used. • Substitute Methods – using quieter methods and/or equipment. • Exhaust Mufflers – ensuring equipment has quality mufflers installed. • Lubrication & Maintenance – well maintained equipment is quieter. • Reduced Power Operation – use only necessary size and power. • Limit Equipment On-Site – only have necessary equipment on-site. • Noise Compliance Monitoring – technician on site to ensure compliance. • Quieter Backup Alarms – manually-adjustable or ambient sensitive types. <p><u>Path Controls</u></p> <ul style="list-style-type: none"> • Noise Barriers – semi-permanent or portable wooden or concrete barriers. • Noise Curtains – flexible intervening curtain systems hung from supports. • Enclosures – encasing localized and stationary noise sources. • Increased Distance – perform noisy activities farther away from receptors, including operation of portable equipment, storage and maintenance of equipment. <p><u>Receptor Controls</u></p> <ul style="list-style-type: none"> • Window Treatments – reinforcing the building’s noise reduction ability. • Community Participation – open dialog to involve affected residents. • Noise Complaint Process – ability to log and respond to noise complaints. Advance notice of the start of construction shall be delivered to all noise sensitive receptors adjacent to the project area. The notice shall state specifically where and when construction activities will occur, and provide contact information for filing noise complaints with the Construction Contractor and the District. In the event of noise complaints noise shall be monitored from the construction activity to ensure that construction noise is not obtrusive. 	During construction (construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

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<p>SC-N-9: Construction Contractor shall ensure that LAUSD interior classroom noise and exterior noise standards are met to the maximum extent feasible, or that construction noise is not disruptive to the school environment, through implementation of noise control measures, as necessary.⁴ Noise control measures may include, but are not limited to:</p> <p><u>Path Controls</u></p> <ul style="list-style-type: none"> Noise Attenuation Barriers⁵ – Temporary noise attenuation barriers installed blocking the line of sight between the noise source and the receiver. Intervening barriers already present, such as berms or buildings, may provide sufficient noise attenuation, eliminating the need for installing noise attenuation barriers. <p><u>Source Controls</u></p> <ul style="list-style-type: none"> Scheduling – performing noisy work during less sensitive time periods (on operating campus: delay the loudest noise generation until class instruction at the nearest classrooms has ended; residential areas: only between 7:00 AM and 7:00 PM). Substitute Methods – using quieter methods and/or equipment. Exhaust Mufflers – ensuring equipment has quality mufflers installed. Lubrication & Maintenance – well maintained equipment is quieter. Reduced Power Operation – use only necessary size and power. Limit Equipment On-Site – only have necessary equipment on-site. Quieter Backup Alarms – manually-adjustable or ambient sensitive types. <p>If OEHS determines that the above noise reduction measures will not reduce construction noise to below the levels permitted by LAUSD’s noise standards LAUSD shall mandate that construction bid contracts include the following receptor controls:</p> <p><u>Receptor Controls</u></p> <ul style="list-style-type: none"> Temporary Window Treatments – temporarily reinforcing the building’s noise reduction ability. Temporary Relocation – in extreme otherwise unmitigable cases, students shall be moved to temporary classrooms / facilities away from the construction activity. 	During construction (construction)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			
<p>3.6 Pedestrian Safety</p> <p>SC-PED-1: LAUSD shall participate in the Safe Routes to School (SR2S) program.</p> <p>Caltrans SR2S program.</p> <p>LAUSD is a participant in the SR2S program administered by Caltrans, local law enforcement, and transportation agencies. OEHS provides pedestrian safety evaluations as a component of traffic studies conducted for new school projects. This pedestrian safety evaluation includes a determination of whether adequate walkways and sidewalks are provided along the perimeter of, across from, and adjacent to a proposed school site and along the paths of identified pedestrian routes within a 0.25-mile radius of a proposed school site. The purpose of this review is to ensure that pedestrians are adequately separated from vehicular traffic.</p>	During project design (planning)	LAUSD, Office of Environmental Health and Safety	LAUSD, Office of Environmental Health and Safety LAUSD – Facilities Services Division			

⁴ The need for noise control measures depends on the type and quantity of equipment being used, the work being performed, and the proximity of the construction activity to active exterior use areas (e.g., playgrounds, athletic fields, etc.) or classrooms. For example, the need for noise control measures may be required if a major construction project (e.g. demolition of a building and/or construction of a new building) takes place on an active LAUSD campus.

⁵ While the height and Sound Transmission Class (STC) rating of the Noise Attenuation Barrier needed will depend on the Project specific conditions, an example of the specifications for a Noise Attenuation Barrier would be: Noise Attenuation Barriers shall be a minimum height of 12 feet and have a minimum Sound Transmission Class rating of 25 (STC-25).

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<p>SC-PED-2: LAUSD shall implement the applicable requirements and recommendations associated with the OEHS Traffic and Pedestrian Safety Program.</p> <p>OEHS Traffic and Pedestrian Safety Program</p> <p>LAUSD has developed these performance guidelines to minimize potential pedestrian safety risks to students, faculty and staff, and visitors at LAUSD schools. The performance guidelines include the requirements for: student drop-off areas, vehicle access, and pedestrian routes to school. School traffic/circulation studies shall identify measures to ensure separation between pedestrians and vehicles along potential pedestrian routes, such as sidewalks, crosswalks, bike paths, crossing guards, pedestrian and traffic signals, stop signs, warning signs, and other pedestrian access measures.</p>	During project design (planning)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			
<p>SC-PED-3: LAUSD shall implement the applicable sidewalk requirements outlined in the School Design Guide. LAUSD shall also coordinate with the responsible traffic jurisdiction/agency to implement infrastructure improvements prior to the opening of a school. Improvements shall include, but are not limited to:</p> <ul style="list-style-type: none"> Clearly designate passenger loading areas with the use of signage, painted curbs, etc. Install new walkway and/or sidewalk segments where none exist. Substandard walkway/sidewalk segments shall be improved to a minimum of eight feet wide. Provide other alternative measures that separate foot traffic from vehicular traffic, such as distinct travel pathways or barricades. 	During project design (planning)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			
<p>SC-PED-4: LAUSD shall design the project to comply with the traffic and pedestrian guidelines in the School Traffic Safety Reference Guide.</p> <p>School Traffic Safety Reference Guide REF- 4492.2.</p> <p>This Reference Guide replaces Reference Guide 4492.0, School Traffic Safety, October 26, 2020. Updated information is provided, including new guidance on passenger loading zones and the Safety Valet Program. This guide sets forth requirements for traffic and pedestrian safety, and procedures for school principals to request assistance from OEHS, the Los Angeles Schools Police Department (LASPD), or the local police department regarding traffic and pedestrian safety. Distribution and posting of the Back to School Safety Tips flyer is required. This guide also includes procedures for traffic surveys, parking restrictions, crosswalks, advance warning signs (school zone), school parking signage, traffic controls, crossing guards, or for determinations on whether vehicle enforcement is required to ensure the safety of students and staff.</p>	During project design (planning)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			
<p>SC-PED-5: LAUSD shall design new student drop-off, pick-up, bus loading areas, and parking areas to comply with the School Design Guide.</p> <p>School Design Guide.</p> <p>The Guide states student drop-off and pick-up, bus loading areas, and parking areas shall be separated to allow students to enter and exit the school grounds safely.</p>	During project design (planning)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			

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				Initials	Date	Remarks
3.7 Transportation & Traffic						
<p>SC-T-3: LAUSD shall coordinate with the local City or County jurisdiction and agree on the following:</p> <ul style="list-style-type: none"> • Compliance with the local jurisdiction’s design guidelines for access, parking, and circulation in the vicinity of the project. • Scope of analysis and methodology for the traffic and pedestrian study, including trip generation rates, trip distribution, number and location of intersections to be studied, and traffic impact thresholds. • Implementation of SR2S, traffic control and pedestrian safety devices. • Fair share contribution and/or other mitigation measures for potential traffic impacts. • Traffic and pedestrian safety impact studies shall address local traffic and congestion during morning arrival times, and before and after evening stadium events. • Traffic study will use the latest version of Institute of Transportation Engineer’s (ITE) Trip Generation manual (or comparable guidelines) to determine trip generation rates (parent vehicles, school buses, staff/faculty vehicles, and delivery vehicles) based on the size of the school facility and the specific school type (e.g., Magnet, Charter, etc.), unless otherwise required by local jurisdiction. • Loading zones will be analyzed to determine the adequacy as pick-up and drop-off points. Recommendations will be developed in consultation with the local jurisdiction for curb loading bays or curb parking restrictions to accommodate loading needs and will control double parking and across-the-street loading. 	Prior to project approval (planning, pre-construction)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			
<p>SC-T-4: LAUSD shall require its Construction Contractors to submit a Construction Worksite Traffic Control Plan to OEHS for review prior to construction. The plan will show the location of any haul routes, hours of operation, protective devices, warning signs, access to abutting properties and applicable transportation related safety measures as required by local and State agencies. LAUSD shall encourage its Construction Contractor to limit construction-related trucks to off-peak commute periods.</p>	Prior to construction (construction)	LAUSD, Office of Environmental Health and Safety	Los Angeles Unified School District (LAUSD) – Facilities Division			