

October 2019 | Draft Environmental Impact Report

JOHN BURROUGHS MIDDLE SCHOOL

Comprehensive Modernization Project



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EXECUTIVE SUMMARY

ES.1 Introduction

To comply with the California Environmental Quality Act (CEQA), the Los Angeles Unified School District (LAUSD or District) has prepared the Burroughs Middle School Comprehensive Modernization Project (proposed Project) Draft Environmental Impact Report (EIR). The proposed Project would include renovations, modernizations, and new construction at Burroughs Middle School (Burroughs MS or Campus). LAUSD, as the Lead Agency, has prepared this Draft EIR to provide the public and local agencies with information about the potential effects on the local and regional environment associated with implementation of the proposed Project. This Draft EIR has been prepared in compliance with the CEQA of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. Seq. and the CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3.

Burroughs MS is an operational middle school serving students in grades 6 through 8. The Campus also houses a Magnet Center and a School for Advanced Studies that currently serves approximately 514 gifted and highly gifted students as part of LAUSD's voluntary integration program. On March 10, 2015, the LAUSD Board approved pre-design and due diligence activities necessary to develop a project definition for a Comprehensive Modernization Project at Burroughs MS. The Project is intended to provide facilities that are safe, secure, and aligned with the instructional program. On February 9, 2016, the Board approved the project definition for Burroughs MS. This approval authorizes LAUSD's Facilities Services Division to proceed with project design and the completion of related technical and regulatory processes including those required under CEQA.

ES.2 Project Objectives

The objectives for the proposed Project are as follows:

- Objective #1: Ensure that the buildings that have been evaluated and identified as requiring seismic upgrades are addressed.
- Objective #2: Provide upgrades throughout the campus to improve accessibility for all students and to comply with the requirements of the Americans with Disabilities Act (ADA) Title II Regulations pursuant to the District's self-evaluation and transition plan under the ADA (October 10, 2017).
- Objective #3: Provide educational facilities that meet California Department of Education (CDE) requirements and LAUSD educational specifications and design guidelines.
- Objective #4: Maximize site efficiency and outdoor playground space for students.
- Objective #5: Create a modern learning environment for students in the 21st century.
- Objective #6: Respect the historic significance of the Campus through rehabilitation.

- Objective #7: Reduce the District’s reliance on portable classrooms.
- Objective #8: Revitalize the urban forest by planting new trees and replacing aging trees and trees in poor health with native, climate-adapted species.
- Objective #9: Continue to accommodate the existing capacity and specialized needs of all programs at Burroughs MS, including the Gifted/High Ability Magnet Center program that is part of the District’s Integration Program.
- Objective #10: Maximize the use of limited bond funds to provide modern and permanent instructional facilities.
- Objective #11: Reduce the amount of storm water runoff from the campus.
- Objective #12: Improve campus safety, supervision, and pedestrian and vehicular circulation, including emergency vehicles and personnel.
- Objective #13: Increase energy efficiency of the campus by upgrading or replacing facilities and incorporating standards developed by the Collaborative for High Performance Schools (CHPS).

ES.3 Project Location

Burroughs MS is located at 600 South McCadden Place, Los Angeles, California 90005 approximately 5 miles west of downtown Los Angeles. Primary regional access is provided by Interstate 10 (I-10), approximately 2 miles to the south of the Project site and the Campus is located about 10 miles east of the Pacific Ocean (**Figure 2-1, Project Vicinity**). Major arterials providing regional and sub-regional access to the project vicinity include Wilshire Boulevard, immediately south of the Project site, and South La Brea Avenue, approximately 0.5 miles west of the Project site (**Figure 2-2, Project Location**). The Assessor’s Parcel Number (APN) for the Project site is 5507-017-900. Figure 2-3, Existing Site Plan, shows the existing site plan and buildings. The Campus is located within the City of Los Angeles’ Wilshire Community Plan Area and the Hancock Park Historic Preservation Overlay Zone (HPOZ).

ES.4 Project Description

The proposed Project would include renovations, modernizations, and new construction at Burroughs MS; including demolition of the Cafeteria-Classroom Building (Bldg.20); Flammable Storage Building (Bldg. 13); Girls’ Locker Building (Bldg. 17); and, approximately 18 classrooms located in 11 relocatable or portable buildings. The Project would include construction of two new one-story Specialty Classroom Buildings (Building A); and, a three-story Food Services/MPR/Classroom/Lockers Building (Building B). Building A would house approximately three specialty classrooms and support spaces split into two pavilions. Building B would house approximately 16 standard classrooms and eight science classrooms, one student store, boys’ and girls’ lockers, food services, and indoor dining/MPR. Modernization and/or upgrades would be completed for the following buildings: Administrative/Library/Auditorium (Bldg. 1); Boy’s Gymnasium Building (Bldg. 2); Classroom Building (Bldg. 7); AA-610 (Bldg. 4); Shop Building (Bldg. 9); All Purpose Building (Bldg. 14); AA-1143 (Bldg. 18).

Vehicular and pedestrian access to Burroughs MS is currently provided via McCadden Place and West 6th Street. The school's main public entrance for vehicular traffic is the existing southern parking lot at the northeast corner of McCadden Place and Wilshire Boulevard, which is accessed by one 25-foot-wide driveway off of McCadden Place approximately 250 feet north of Wilshire Boulevard. The main student entrance is located on McCadden Place. Student drop off / pick-up currently occurs along the east (school) side of McCadden Place. The proposed Project would not change the school entrances or parent drop-off/pick-up zone. However, as noted previously, the southern parking lot would be expanded to include a relocated school bus loading and unloading area (eliminating the existing school bus loading and unloading along McCadden). The Project would increase the number of onsite parking spaces and would add two right-in/right-out only driveways along Wilshire Boulevard to provide access to the expanded southern parking lot. Additionally, the Project would relocate the existing driveway on McCadden Place closer to Wilshire Boulevard, which would allow the existing loading and unloading zone for parent drop-off/pick up along McCadden Place to be extended south by approximately 150 feet.

The proposed Project is designed to improve site circulation, access (including the path of travel), and parking at the Campus. As part of the Project, school bus access for student loading and unloading would be relocated from the existing location along McCadden Place to a location within the proposed expanded southern parking lot. The main public and student access (walk-in) point to the school would continue to be off McCadden Place. The project would increase the number of combined onsite parking spaces from 98 to 146 in two surface parking lots.

ES.5 Summary of Impacts

Table ES-1 presents a summary of the impacts and mitigation measures identified in the Draft EIR. The complete impact statements and mitigation measures are presented in Chapter 3. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet, or exceed, the significance thresholds; less than significant impacts would not exceed the thresholds. Table ES-1 indicates the measures that would avoid, minimize, or otherwise reduce significant impacts to less than significant levels.

The proposed Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and would not result in potentially significant, or cumulatively considerable, hazard impacts to the public or the environment. Potential significant impacts to cultural resources and noise have been identified. Mitigation measures have been incorporated in this Draft EIR to avoid or minimize impacts associated with these resources. However, even with implementation of mitigation measures, impacts would be significant and unavoidable for cultural resources and noise.

ES.6 Areas of Known Controversy

Pursuant to Section 15123(b)(2) of the CEQA Guidelines, a lead agency is required to include areas of controversies raised by agencies and the public during the public scoping process in the EIR. Areas of controversy have been identified for the EIR based on comments made during the 30-day public review period in response to information published in the NOP. Commenting parties have expressed concern for visual impacts, traffic, and historical resources. These issues have been considered during preparation of this Draft EIR.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BURROUGHS MS COMPREHENSIVE MODERNIZATION PROJECT

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
3.1 Aesthetics			
Project-Specific Impacts			
Impact 3.1-1: The Project would not substantially degrade the existing visual character or quality of the site and its surroundings.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.1-2: The Project would not result sensitive land uses being shaded by Project-related structures for more than three hours.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts			
The Project would have less than cumulatively considerable effects on visual character.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would have less than cumulatively considerable effects related to shade and shadow.	Less Than Significant	No mitigation measures are required.	Less Than Significant
3.2 Air Quality			
Project-Specific Impacts			
Impact 3.2-1: The Project would not conflict with or obstruct implementation of the applicable air quality plan.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.2-2: The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.2-3: The 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.2-4: The Project would not expose sensitive receptors to substantial pollutant concentrations.	Less Than Significant	No mitigation measures are required.	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Cumulative Impacts			
The Project would have less than cumulatively considerable effects on implementation of an applicable air quality plan.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would have less than cumulatively considerable effects and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable effects associated with the exposure of sensitive receptors to substantial pollutant concentrations.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable effects from the creation of objectionable odors affecting a substantial number of people.	Less Than Significant	No mitigation measures are required.	Less Than Significant
3.3 Cultural Resources			
Project-Specific Impacts			
Impact 3.3-1: The Project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.3-2: The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.3-3: The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	<p>CUL-1: The Qualified Paleontologist shall conduct initial construction worker paleontological resources sensitivity training prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. Subsequent training session may be provided by a paleontological monitor or in a video format. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction personnel attended the training.</p> <p>CUL-2: Paleontological monitoring of previously undisturbed sediment shall be conducted by a qualified paleontological monitor (SVP, 2010) under the supervision of the Qualified Paleontologist as follows:</p>	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ul style="list-style-type: none"> • In areas mapped as younger Quaternary Alluvium (Qa), full-time paleontological monitoring shall commence once excavations have exceeded 10 feet in depth. Monitoring is not necessary in shallow excavations (<10 feet) or in artificial fill. • In areas mapped as older Quaternary Alluvium (Qae), full-time paleontological monitoring shall be conducted for all ground-disturbing activities, regardless of depth. Monitoring is not necessary in artificial fill. <p>Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort.</p> <p>CUL-3: If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it should be salvaged following the standards of the SVP (SVP, 2010) and curated with a certified repository.</p> <p>CUL-4: Should fossils be encountered in asphaltic sands during the course of excavations, the Qualified Paleontologist will contact the paleontological staff of the La Brea Tar Pits & Museum for coordination of excavation and salvage procedures. Any fossil material from asphaltic sands shall be collected and deposited at the La Brea Tar Pits & Museum, with preparation and curation fees to be assessed on a case-by-case basis.</p>	
Cumulative Impacts			
The Project could have cumulatively considerable effects on historical resources.	Less Than Significant	No mitigation measures are required	Less Than Significant
The Project could have cumulatively considerable effects on archaeological resources.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project could have cumulatively considerable effects on paleontological resources.	Potentially Significant	CUL-1: The Qualified Paleontologist shall conduct initial construction worker paleontological resources sensitivity training prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. Subsequent training session may be provided by a paleontological monitor or in a	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>video format. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction personnel attended the training.</p> <p>CUL-2: Paleontological monitoring of previously undisturbed sediment shall be conducted by a qualified paleontological monitor (SVP, 2010) under the supervision of the Qualified Paleontologist as follows:</p> <ul style="list-style-type: none"> • In areas mapped as younger Quaternary Alluvium (Qa), full-time paleontological monitoring shall commence once excavations have exceeded 10 feet in depth. Monitoring is not necessary in shallow excavations (<10 feet) or in artificial fill. • In areas mapped as older Quaternary Alluvium (Qae), full-time paleontological monitoring shall be conducted for all ground-disturbing activities, regardless of depth. Monitoring is not necessary in artificial fill. <p>Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort.</p> <p>CUL-3: If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it should be salvaged following the standards of the SVP (SVP, 2010) and curated with a certified repository.</p> <p>CUL-4: Should fossils be encountered in asphaltic sands during the course of excavations, the Qualified Paleontologist will contact the paleontological staff of the La Brea Tar Pits & Museum for coordination of excavation and salvage procedures. Any fossil material from asphaltic sands shall be collected and deposited at the La Brea Tar Pits & Museum, with preparation and curation fees to be assessed on a case-by-case basis.</p>	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
3.4 Energy			
Project-Specific Impacts			
Impact 3.4-1: The Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.4-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts			
The Project would result in less than cumulatively considerable impacts regarding energy demand.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts related to conflicts with adopted energy conservation plans.	Less Than Significant	No mitigation measures are required.	Less Than Significant
3.5 Hazards and Hazardous Materials			
Project-Specific Impacts			
Impact 3.5-1: The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.5-2: The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.5-3: The Project would not be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.5-4: The Project would not be located on a site with a traffic pattern for school buses that can pose a safety hazard.	Less Than Significant	No mitigation measures are required.	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Cumulative Impacts			
The Project would result in less than cumulatively considerable effects regarding a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable 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.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts regarding safety hazards related to proximity to major roadways or freeways.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts from safety hazards related to school bus circulation patterns.	Less Than Significant	No mitigation measures are required.	Less Than Significant
3.6 Noise			
Project-Specific Impacts			
Impact 3.6-1: The Project would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially Significant	NOISE-1: In order to ensure that construction noise does not exceed 67 dBA Leq at the exterior of any occupied classroom (i.e., when class is in session), the use of motorized construction equipment shall be prohibited within 80 feet of any occupied classroom. All construction work requiring the use of motorized construction equipment within 80 feet of a classroom shall occur after regular school hours.	Significant and Unavoidable
Impact 3.6-2: The Project could result in exposure of persons to, or generation of, excessive ground-borne vibration.	Potentially Significant	<p>Implementation of the following mitigation measure is required to reduce impacts related to structural damage during construction:</p> <p>NOISE-2: To avoid structural damage, when the construction equipment is within 15 feet of existing school buildings, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.</p> <p>Implementation of the following mitigation measure is required to reduce impacts related to human annoyance:</p> <p>NOISE-3: In the event that construction activity would occur within 30 feet of occupied classrooms or residences, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.</p>	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 3.6-3: The Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.6-4: The Project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project.	Potentially Significant	NOISE-1: In order to ensure that construction noise does not exceed 67 dBA Leq at the exterior of any occupied classroom (i.e., when class is in session), the use of motorized construction equipment shall be prohibited within 80 feet of any occupied classroom. All construction work requiring the use of motorized construction equipment within 80 feet of a classroom shall occur after regular school hours.	Significant and Unavoidable
Cumulative Impacts			
The Project would result in less than cumulatively considerable impacts to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts regarding excessive ground-borne vibration.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts regarding substantial permanent increase in ambient noise levels.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would result in less than cumulatively considerable impacts regarding temporary or periodic increase in ambient noise levels.	Less Than Significant	No mitigation measures are required.	Less Than Significant
3.7 Transportation and Traffic			
Project-Specific Impacts			
Impact 3.7-1: The Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Less Than Significant	No mitigation measures are required.	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 3.7-2: The Project would not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.7-3: The Project would not result in inadequate emergency access.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.7-4: The Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.7-5: The Project would not substantially increase vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 3.7-6: The Project would not create unsafe routes to schools for students walking from local neighborhoods.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts			
The Project would not result in cumulatively considerable impacts regarding the confliction with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would not result in cumulatively considerable impacts regarding hazards due to a design feature.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would not result in cumulatively considerable impacts regarding inadequate emergency access.	Less Than Significant	No mitigation measures are required.	Less Than Significant

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The Project would not result in cumulatively considerable impacts regarding the confliction with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would not result in cumulatively considerable impacts regarding an increase in vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses.	Less Than Significant	No mitigation measures are required.	Less Than Significant
The Project would not result in cumulatively considerable impacts regarding unsafe routes to schools for students walking from local neighborhoods.	Less Than Significant	No mitigation measures are required.	Less Than Significant

ES.7 Significant Irreversible Environmental Changes

CEQA Guidelines 21100(b)(2) and 15126.2(b) require that any significant effect on the environment that would be irreversible if the proposed Project is implemented must be identified. Construction and operation of the proposed Project would require the use and consumption of nonrenewable resources, such as steel and other metals. Renewable resources, such as lumber and other wood byproducts, would also be used. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Construction of high school facilities would require the commitment of a relatively small amount of building materials. The small quantity of building materials used during implementation of the proposed Project would result in a less-than-significant impact because these types of resources are anticipated to be in adequate supply into the foreseeable future.

Energy would be consumed during both construction and operation of the proposed Project. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the site, and construction and site restoration activities. The proposed Project would not result in the wasteful, inefficient or unnecessary consumption of energy during construction or operation. The proposed Project would result in the irretrievable and irreversible commitment of energy resources in the form of diesel fuel, gasoline and electricity during construction and operation. However, these types of resources are anticipated to be in adequate supply into the foreseeable future. Further, the proposed Project's new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. The roofing of the new buildings would meet "cool roof" building certification requirements. All new construction would exceed by 10 percent or more the California Title 24, Part 6 energy efficient standards. These energy management systems, and project design features, would reduce potential significant impacts regarding energy use to less than significant levels. Therefore, impacts due to these irretrievable and irreversible commitments of resources are considered less than significant.

ES.8 Project Alternatives

Three alternatives were selected for detailed analysis. The goal for evaluating alternatives is to identify ways to avoid, or lessen, the significant environmental effects resulting from implementation of the proposed Project, while attaining most of the Project objectives. The following provides a summary of each of the alternatives analyzed.

- **Alternative 1: No Project/No Build Alternative.** The No Project/No Build Alternative assumes that the Project site would remain as it is in existing conditions. No demolition or construction of new buildings would occur on the Project site and the existing facilities and infrastructure would continue to be susceptible to seismic damage and deteriorate. The Campus would continue to rely on portable classroom buildings and existing classrooms would remain undersized and compromised without specialty spaces. Only essential repairs such as repair of portable classrooms, replacement of lead pipes, and maintenance of fire alarm and fire suppression systems would occur over time.

- Alternative 2: Reduced Project Alternative.** Under this alternative, no permanent buildings would be demolished and no new structures would be constructed. All portable classroom buildings would be removed, resulting in a reduction in enrollment at the JBMS campus. The parking lots would not be expanded or reconfigured and pick-up/drop-off and bus loading operations would remain unchanged from the existing conditions. Under this alternative, the Cafeteria-Classroom Building (Building 20) and the Shop Building (Building 9) would receive extensive seismic improvements and other upgrades. This alternative would include the modernization and renovation of the Administrative/Library/Auditorium Building (Building 1), Boy's Gymnasium Building (Building 2), Classroom Building 7, Shop Building (Building 9), and Girl's Locker Building (Building 17). Upgrades entail retrofits in compliance with American with Disabilities Act (ADA), and infrastructure upgrades such as electrical, storm drain, gas, sewer, and water. Classroom Building 4, All Purpose Building (Building 14), and Classroom Building 18 would receive fresh paint and finish upgrades.
- Alternative 3: Demolition of Shop Building and New Classroom Building Project Alternative.** This alternative (which is how the Project was originally proposed in the Initial Study) would include renovations, modernizations, and new construction at Burroughs MS; including demolition of the Shop Building, Girls' Locker Building, Cafeteria-Classroom Building, and approximately 16 classrooms located in portable (relocatable) buildings. This Alternative would include construction of a new two-story classroom building, a three-story Food Services/Multi-Purpose Room (MPR) Building, and Classroom/Lockers Building, and an Operations and Maintenance Building. The new buildings would house approximately 34 new general and specialty classrooms, and support spaces, and a new Food Services Building and Lunch Shelter. This Alternative would include modifications and remodeling of 31 classrooms.

Sections 5.6, 5.7, 5.8 of this EIR provides a comparative summary of the alternatives, including a summary of the ability of the alternatives to meet the Project objectives and a summary comparison of the potential impacts associated with each alternative and the proposed Project.

ES.9 Organization of this EIR

This Draft EIR is organized into the following chapters and appendices:

- S. Executive Summary.** The summary provides a synopsis of the Project's potential impacts. It identifies, in an overview fashion, the Project under consideration and its objectives. The section also summarizes the Project's impacts and mitigation measures and contains a summary analysis of the alternatives to the Project.
- 1. Introduction.** The introduction includes the purpose of an EIR and procedural information.
- 2. Project Description.** The Project description includes the Project background, Project location and setting, site characteristics, Project objectives, and the characteristics of the Project. The section also includes a summary of the necessary permits and approvals for the Project.
- 3. Environmental Setting, Impacts, and Mitigation Measures.** This chapter describes the environmental setting and identifies impacts of the proposed Project for each of the following environmental resource areas: Aesthetics; Air Quality; Cultural Resources, Energy, Hazards and Hazardous Materials, Noise, and Transportation and Traffic. Mitigation measures to reduce significant impacts of the proposed Project to the lowest level feasible are presented for each resource area. This section also provides an analysis of the cumulative impacts for each issue area analyzed in the Draft EIR.

4. **Other CEQA Considerations.** This chapter provides an analysis of the extent to which the Project's primary and secondary effects would commit resources to uses that future generations would probably be unable to reverse. This chapter also discusses the resource areas determined to have no impact with implementation of the Project.
5. **Alternatives Analysis.** This chapter presents an overview of the alternatives development process and describes and analyzes the alternatives to the Project, including the No Project Alternative.
6. **Report Preparation.** This chapter provides a list of the individuals who contributed to the preparation of the Draft EIR.
7. **Appendices.** The appendices contain important information used to support the analyses and conclusions made in the EIR. Appendices are provided documenting the scoping process, air emissions modeling results, cultural resources assessment, related projects list, Phase I Environmental Site Assessment, Preliminary Environmental Assessment – Equivalent; Removal Action Workplan, noise and vibration modeling results, traffic and pedestrian safety, and energy consumption modeling results.

CHAPTER 1

Introduction

1.1 Purpose of the EIR

The Los Angeles Unified School District (LAUSD) is proposing a comprehensive modernization of John Burroughs Middle School (Burroughs MS) (Project). The proposed Project would include renovations, modernizations, and new construction at Burroughs MS (Campus); including the demolition of the Girls' Locker Building, Cafeteria-Classroom Building, Flammable Storage Building, and approximately 28 standard and specialty classrooms located in 13 portable (relocatable) buildings. The Project would include the construction of two One-Story Specialty Classroom Buildings (Bldg. A) and a Three-Story Food Services/Multi-Purpose Room (MPR)/Classroom/ Lockers Building. Modernization and/or upgrades would be completed for the following buildings: Administrative/Library/Auditorium (Bldg. 1); Boy's Gymnasium Building (Bldg. 2); Classroom Building (Bldg. 7); AA-610 (Bldg. 4); Shop Building (Bldg. 9); All Purpose Building (Bldg. 14); AA-1143 (Bldg. 18). The new buildings would house approximately 27 new general and specialty classrooms, and support spaces, and a new Food Services Building and Lunch Shelter. Once modernization is completed, the Burroughs MS would contain 71 classrooms including 6 existing classrooms, 38 remodeled classrooms, and 27 new classrooms. To implement the proposed Project, certification of this Environmental Impact Report (EIR) to approve the Project would be required. LAUSD, as the lead agency, has prepared this Draft EIR to provide the public, decision makers, state agencies, and local agencies with information about the potential effects on the local environment associated with the implementation of the proposed Project.

1.2 Intended Use of this EIR

This EIR is an information document that is intended to inform public agency decision makers and the public of the environmental effects of the proposed Project and potential mitigation for those effects. This EIR analyzes the environmental effects of the proposed Project at a project level. In addition, this EIR describes a reasonable range of alternatives to the Project. As described in the California Environmental Quality Act (CEQA) Guidelines Section 15161, a project EIR is used to examine the impacts of a specific development project, focusing on changes to the environment that would result from the development project. The EIR shall examine all phases of the Project including planning, construction, and operation. Accordingly, this EIR has been prepared as a project-level EIR and analyzes the specific environmental impacts that could be associated with construction and operation of the proposed Project.

1.3 CEQA Environmental Review Process

1.3.1 CEQA Process Overview

This Draft EIR has been prepared in compliance with CEQA (as amended), codified as California Public Resources Code Sections 21000 et seq. and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. The basic purposes of CEQA are to: (1) inform decision makers and the public about the potential, significant environmental effects of proposed activities, (2) identify the ways that environmental effects can be avoided, or significantly reduced, (3) prevent significant, avoidable environmental effects by requiring changes in projects through the use of alternatives, or mitigation measures, when feasible, and (4) disclose to the public the reasons why an implementing agency may approve a project even if significant unavoidable environmental effects are involved.

An EIR uses a multidisciplinary approach, applying social and natural sciences to make a qualitative and quantitative analysis of all the foreseeable environmental impacts that a proposed project would exert on the surrounding area. As stated in CEQA Guidelines Section 15151:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.

As described in Section 15121(a) of the CEQA Guidelines, this Draft EIR is intended to serve as an informational document for public agency decision makers. Accordingly, this Draft EIR has been prepared to identify and disclose the significant environmental effects of the proposed Project, identify mitigation measures to minimize significant effects, and consider reasonable Project alternatives. The environmental impact analyses in this Draft EIR are based on a variety of sources, including agency consultation, technical studies, and field surveys. LAUSD will consider the information presented in this Draft EIR, along with other factors, prior to approving the proposed Project.

1.3.2 Notice of Preparation and Public Scoping

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 state Office of Planning and Research (OPR), responsible and trustee agencies, and federal agencies involved in funding or approving the Project. 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 OPR 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 February 16, 2018, 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 those agencies with regulatory authority over any aspect of the Project to describe that authority. The comment period went through March 20, 2018. The NOP provided a general description of the proposed actions, a description of the Project area, and a preliminary list of potential environmental impacts.

On February 28, 2018, in accordance with CEQA Section 21083.9¹, LAUSD sponsored a public meeting to obtain comments from interested parties on the scope of the Draft EIR. The purpose of the meeting was to present the Project to the public through use of display maps, diagrams, and a presentation describing the 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 Project. The issues addressed by participants are summarized and included in this Draft EIR as part of **Appendix A**. Twenty-six comment letters were received in response to the NOP. Specific environmental concerns that were raised in the comments received on the NOP are discussed in **Table 1-1**, below. Based on comments received during the scoping period, changes were made to the scope of the Project to reduce and/or avoid environmental effects. State 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 Section 2.0 of the Draft EIR.

1.3.3 Draft EIR

The Draft EIR has been prepared pursuant to the requirements of CEQA Guidelines Section 15126. The environmental issues addressed in this Draft EIR were established through review of environmental documentation developed for the Project, environmental documentation for nearby projects, and public and agency responses to the NOP. This Draft EIR provides an analysis of reasonably foreseeable impacts associated with the construction and operation of the proposed Project. The environmental baseline for determining potential impacts is the date of publication of the NOP for the proposed Project (CEQA Guidelines Section 15125(a)). Unless otherwise indicated, the environmental setting for each resource assessed in this Draft EIR describes the existing conditions as of March 2018. The impact analysis is based on changes to existing conditions that would result from implementation of the proposed Project.

In accordance with CEQA Guidelines Section 15126, the Draft EIR describes the proposed Project and the existing environmental setting, identifies environmental impacts associated with Project implementation, identifies mitigation measures for significant impacts, and provides an analysis of alternatives. Significance thresholds have been developed for each environmental resource analyzed in this Draft EIR. The significance criteria are defined at the beginning of each impact analysis section.

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

**TABLE 1-1
SUMMARY OF NOP COMMENTS**

Committer/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
Notice of Preparation – February 16, 2018		
Agencies		
State Clearinghouse	This is a letter to reviewing agencies that provides a reminder to comment on the proposed Project in a timely manner.	
South Coast Air Quality Management District March 20, 2018	The commenter makes suggestions as to what elements are to be addressed in air quality studies.	Section 3.1, Air Quality
Native American Heritage Commission (NAHC) February 21, 2018	Provides AB52 Tribal consultation requirements for CEQA and impacts to Tribal Cultural Resources Provides Native American Heritage Commission (NAHC) recommendations for Cultural Resources Assessments	Section 3.3, Cultural Resources
California Department of Transportation (Caltrans) March 14, 2018	The commenter makes suggestions as to what elements are to be addressed in the EIR. Such as, sustainable transportation features, and clean storm water runoff.	Section 3.7, Transportation and Circulation
Los Angeles County Metropolitan Transportation Authority March 20, 2018	Outlines concerns and policies associated with the proposed Project's location adjacent to and proximate to Metro services.	Section 3.7, Transportation and Circulation
Organizations		
Hancock Park Homeowners Association March 13 2018	Aesthetic impacts related to the disruption of the Italian Renaissance Revival style with a modern architectural style Creation of shade as a part of the proposed Project could negatively affect solar power generation Proposed size is more than needed considering school enrollment Campus zoning prohibits buildings greater than 2 stories and higher than 30 feet. The proposed Project includes a 3-story building in the design Loss of historically and culturally significant buildings from Campus Odor and air quality impacts as a result of construction activities Exposure to hazardous materials, such as methane, asbestos, arsenic, and other carcinogens Concerns about noise during construction activities Scale of construction activities could result in a strain on public services to the community Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.1, Aesthetics and Section 3.2, Cultural Resources Section 3.1, Aesthetics Chapter 2, Project Description Chapter 2, Project Description Section 3.2, Cultural Resources Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials Section 3.6, Noise Appendix A, Initial Study Section 4.15 Section 3.7, Transportation and Circulation Section 3.7, Transportation and Circulation
Hancock Park June Street Residents	Aesthetic impacts related to disruption of the Italian Renaissance Revival style with a modern architectural style	Section 3.1, Aesthetics

Commenter/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
March 20, 2018	Creation of shade as a part of the proposed Project could negatively affect solar power generation	Section 3.3, Cultural Resources Section 3.1, Aesthetics
	Proposed size is more than needed considering school enrollment	Section 2, Project Description
	Campus zoning prohibits buildings greater than 2 stories and higher than 30 feet. The proposed Project includes a 3-story building in the design	Section 2, Project Description
	Loss of historically and culturally significant buildings from Campus	Section 3.3, Cultural Resources
	Odor and air quality impacts as a result of construction activities	Section 3.2, Air Quality
	Exposure to hazardous materials, such as methane, asbestos, arsenic, and other carcinogens	Section 3.5, Hazards and Hazardous Materials
	Concerns about noise during construction activities	Section 3.6, Noise
	Scale of construction activities could result in a strain on public services to the community	Appendix A, Initial Study Section 4.15
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
Greater Wilshire Neighborhood Council Land Use Committee March 20, 2018	Aesthetic impacts related to the disruption of the Italian Renaissance Revival style with a modern architectural style	Section 3.1, Aesthetics and 3.2, Cultural Resources
	Creation of shade as a part of the proposed Project could negatively affect solar power generation	Section 3.1, Aesthetics
	Proposed size is more than needed considering school enrollment	Section 2, Project Description
	Campus zoning prohibits buildings greater than 2 stores and higher than 30 feet. The proposed Project includes a 3-story building in the design	Section 2, Project Description
	Loss of historically and culturally significant buildings from Campus	Section 3.3, Cultural Resources
	Odor and air quality impacts as a result of construction activities	Section 3.2, Air Quality
	Exposure to hazardous materials, such as methane, asbestos, arsenic, and other carcinogens	Section 3.5, Hazards and Hazardous Materials
	Concerns about noise during construction activities	Section 3.6, Noise
	Scale of construction activities could result in a strain on public services to the community	Appendix A, Initial Study Section 4.15
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
Individuals		
Andrea Barukh February 27, 2018	Construction noise	Section 3.6 Noise
	Road closures	Section 3.7, Transportation and Circulation
	Construction dust	Section 3.2, Air Quality

Commenter/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
Sandra Kohn February 28, 2018	Air quality concerns relating to lead and arsenic cleanup activities	Section 3.2, Air Quality
	Demolition/construction activities causing damage to commenter's house	Section 3.5, Hazards and Hazardous Materials Section 3.6 Noise
	Storage of construction vehicles/materials on John Burroughs's MS property	Section 3.5, Hazards and Hazardous Materials Section 3.7, Transportation and Circulation
Sandra Kohn February 28, 2018	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
	Impacts to historically/architecturally significant buildings on the school Campus	Section 3.3, Cultural Resources
Howard and Susan Mandel February 28, 2018	Excessively large student population	Section 2, Project Description and Section 4.0 Alternatives
	Noise levels	Section 3.6, Noise
	Air quality, safety, and infrastructure impacts resulting from high traffic	Section 3.2, Air Quality Section 3.7, Transportation and Circulation
Andrea Barukh March 4, 2018	Impacts to historically/architecturally significant buildings on the school Campus	Section 3.3. Cultural Resources
	Concerns regarding contaminated runoff migrating into nearby streams and wetlands	Section 3.5, Hazards and Hazardous Materials Appendix A, Initial Study, Section 4.4 and 4.9
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
David Gajda March 18, 2018	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
	Aesthetic impacts related to disruption of the Italian Renaissance Revival style with a modern architectural style	Section 3.3, Cultural Resources
	Creation of Shade as a part of the proposed Project could negatively affect solar power generation	Section 3.1, Aesthetics
David Gajda March 18, 2018	Proposed size is more than needed considering school enrollment	Section 2, Project Description
	Campus zoning prohibits buildings greater than 2 stores and higher than 30 feet. The proposed Project includes a 3-story building in the design	Section 2, Project Description Appendix A, Section 4.10 Land Use
	Loss of historically and culturally significant buildings on the Campus	Section 2, Project Description and Section 3.3, Cultural Resources

Commenter/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
	Odor and air quality impacts as a result of construction activities	Section 3.2, Air Quality
	Exposure to hazardous materials, such as methane, asbestos, arsenic, and other carcinogens	Section 3.5, Hazards and Hazardous Materials
	Concerns about noise during construction activities	Section 3.6, Noise
	Scale of construction activities could result in a strain on Public Services to the community	Appendix A, Initial Study, Section 4.15
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
Howard C. Mandel March 18, 2018	Excessively large student population	Section 2, Project Description and Section 4.0 Alternatives
	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials
John and Mike August March 19, 2018	Safety concerns related to pollutants and runoff	Section 3.5, Hazards and Hazardous Materials
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
Catherine Defensor March 19, 2018	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials
Susan Grossman March 19, 2018	Aesthetic impacts related to disruption of the Italian Renaissance Revival style with a modern architectural style	Section 3.1, Aesthetics Section 3.7, Transportation and Circulation
	Creation of shade as a part of the proposed Project could negatively affect solar power generation	Section 3.1, Aesthetics
	Proposed size is more than needed considering school enrollment	Section 2, Project Description
	Campus zoning prohibits buildings greater than 2 stories and higher than 30 feet. The proposed Project includes a 3-story building in the design	Section 2, Project Description Appendix A, Section 4.10 Land Use
	Loss of historically and culturally significant buildings from Campus	Section 3.3, Cultural Resources
	Odor and air quality impacts as a result of construction activities	Section 3.2, Air Quality
	Exposure to hazardous materials, such as methane, asbestos, arsenic, and other carcinogens	Section 3.5, Hazards and Hazardous Materials

Committer/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
	Concerns about noise during construction activities	Section 3.6, Noise
	Scale of construction activities could result in a strain on public services to the community	Appendix A, Initial Study, Section 4.15
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
	Traffic impacts during drop-off/pick-up at South McCadden Place at 6 th Street	Section 3.7, Transportation and Circulation
Ann Holler March 19, 2018	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials
Krislyn Komarov March 19, 2018	Excessively large student population	Section 2, Project Description Appendix A, Section 4.14 Population and Housing
	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials
Howard C. Mandel March 19, 2018	Large distance students travel from to attend	Section 3.7, Transportation and Circulation
	Air Quality impacts related to parents leaving their vehicles idling while they wait to pick-up their kids	Section 3.2, Air Quality
Lauren Mulheim March 19, 2018	Excessively large student population	Section 2, Project Description Appendix A, Section 4.14 Population and Housing
	Noise levels	Section 3.6, Noise
	Air quality, safety, and infrastructure impacts resulting from high traffic	Section 3.2, Air Quality Section 3.7, Transportation and Circulation
	Impacts to historically/architecturally significant buildings on the school Campus	Section 3.3. Cultural Resources
	Concerns regarding contaminated runoff migrating into nearby streams and wetlands	Section 3.5, Hazards and Hazardous Materials Appendix A, Initial Study, Section 4.4 and 4.9
Oliver Nordlinger March 19, 2018	Excessively large student population	Section 2, Project Description Appendix A, Section 4.14 Population and Housing
	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials

Commenter/Date	Summary of Environmental Issues Raised in Comment Letters	Applicable Draft EIR Sections
Marlene Tsuchii March 19, 2018	Excessively large student population and concerns regarding suspected expansion of enrollment with Project implementation	Section 2, Project Description Appendix A, Section 4.14 Population and Housing
	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials
	Traffic and pedestrian safety concerns regarding pick-up and drop-off plans at the school	Section 3.7, Transportation and Circulation
Michael Wegmann	Excessively large student population	Section 2, Project Description Appendix A, Section 4.14 Population and Housing
	Air quality and health concerns related to contaminated soil and hazardous materials on the Project Site, which will be disturbed during Project implementation	Section 3.2, Air Quality Section 3.5, Hazards and Hazardous Materials

Scoping Meeting – February 28, 2018

Individuals

Robert Andrews February 28, 2018	Concerns regarding parking during construction activities	Section 3.7, Transportation and Circulation
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1.3.4 Public Review

In accordance with CEQA Guidelines Section 15105, this Draft EIR is being circulated and made available to local, state, and federal agencies, and to interested organizations and individuals who may wish to review and comment on the Draft EIR during the 45-day review period. All written comments should be directed to:

Mr. Edward Paek, CEQA Project Manager
Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

Comments on the Draft EIR must be received by close of business on the last day of the 45-day review period.

1.3.5 Final EIR Publication and Certification

Written and oral comments received in response to the Draft EIR will be addressed in a Response to Comments document that, together with the Draft EIR, will constitute the Final EIR. The LAUSD Board of Education (Board) will then consider EIR certification (CEQA Guidelines Section 15090). If the EIR is certified, the Board may consider Project approval. Prior to approving the Project, LAUSD

must make written findings with respect to each significant environmental effect identified in the Draft EIR in accordance with Section 15091 of the CEQA Guidelines. In addition, LAUSD must adopt a Statement of Overriding Considerations concerning each unmitigated significant environmental effect identified in the Final EIR (if any). The Statement of Overriding Considerations would be included in the record of the Project's approval and mentioned in the Notice of Determination (NOD) following CEQA Guidelines Section 15093(c). Pursuant to Section 15094 of the CEQA Guidelines, LAUSD will file a NOD with the State Clearinghouse and Los Angeles County Clerk within five working days after Project approval.

1.3.6 Mitigation Monitoring and Reporting Program

CEQA requires lead agencies to “adopt a reporting and mitigation monitoring program for the changes to the Project which it has adopted or made a condition of Project approval in order to mitigate or avoid significant effects on the environment” (CEQA Guidelines Section 15097). The mitigation monitoring program will be available to the public at the same time as the Final EIR.

1.3.7 Standard Conditions of Approval

LAUSD Standard Conditions of Approval (SC) are uniformly applied development standards and were adopted by the LAUSD Board in February 2019.² The SCs have been updated since the adoption of the 2015 SUP Program EIR in order to incorporate and reflect changes in the recent laws, regulations and the LAUSD's standard policies, practices and specifications.³ The SCs were compiled from established LAUSD standards, guidelines, specifications, practices, plans, policies, and programs, as well as typically applied mitigation measures. The SCs are divided into the 18 LAUSD CEQA environmental topics (Appendix G of the CEQA Guidelines plus Pedestrian Safety).⁴ For each SC, compliance is triggered by factors such as the project type, existing conditions, and type of environmental impact. Compliance with every SC is not required.

² LAUSD. 2019. Standard Conditions of Approval, Program EIR for the SUP. Available at: https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/135/2018_Standard_Conditions_UPDATE_final.pdf.

³ LAUSD Regular Meeting Stamped Order of Business. 333 South Beaudry Avenue, Board Room, 1 p.m., Tuesday, November 10, 2015 (Board of Education Report No. 159 – 15/16).

⁴ As of September 2016, an additional environmental topic has since been required by the State Office of Planning and Research (Tribal Cultural Resources). The LAUSD Environmental Checklist now has 19 topics.

CHAPTER 2

Project Description

2.1 Introduction

The purpose of the project description is to describe the proposed Project in a way that will be meaningful to the public, reviewing agencies, and decision makers. This project description provides information pertaining to the John Burroughs Middle School (Burroughs MS) Comprehensive Modernization Project (Project). As described in Section 15124 of the California Environmental Quality Act (CEQA) Guidelines, the project description in an Environmental Impact Report (EIR) is required to contain the following information: (1) the location and boundaries of the proposed Project; (2) a statement of project objectives; (3) a general description of the Project's technical, economic, and environmental characteristics, including a consideration of the supporting public service facilities; and (4) a statement briefly describing the intended uses of the EIR. The State CEQA Guidelines state that a project description need not be exhaustive, but should provide the level of detail needed for the evaluation and review of the environmental impact.

The proposed Project would include renovations, modernizations, new construction, and demolition at Burroughs MS to address the most critical physical concerns of the school's buildings and grounds, further described below.

2.2 Background

On July 31, 2008, the Los Angeles Unified School District (LAUSD) Board of Education (BOE or Board) adopted a Resolution Ordering an Election and Establishing Specifications of the Election Order for the purpose of placing Measure Q, a \$7 billion bond measure, on the November election ballot to fund the renovation, modernization, construction, and expansion of school facilities. On November 4, 2008, the bond passed. The nationwide economic downturn in 2009 resulted in a decline in assessed valuation of real property, which restricted the District's ability to issue Measure Q bonds and the remaining unissued Measures R and Y funds. Once the assessed valuation improved, the BOE could authorize the issuance of bond funds.¹

On December 10, 2013, the District refined its School Upgrade Program (SUP) to reflect the intent and objectives of Measure Q as well as the updated needs of District school facilities and educational goals.² Between July 2013 and November 2015, the SUP was analyzed under CEQA in a Program

¹ LAUSD Board of Education Report. December 10, 2013. Report Number 143 – 13/14. Subject: SUP.

² LAUSD Board of Education Report. December 10, 2013. Report Number 143 – 13/14. Subject: SUP.

EIR. On November 10, 2015, the BOE certified the Final SUP Program EIR.³ Updates to the LAUSD Standard Conditions of Approval of District Construction, Upgrade, and Improvement Projects (SCs) were adopted by the BOE on February 5, 2019.⁴

On March 10, 2015, the LAUSD Board approved pre-design and due diligence activities necessary to develop a project definition for a Comprehensive Modernization Project at Burroughs MS. The Burroughs MS Comprehensive Modernization Project (Project) is intended to provide facilities that are safe, secure, and aligned with the instructional program. On February 9, 2016, the Board approved the project definition for Burroughs MS (Project site or Campus). This approval authorized LAUSD's Facilities Services Division to proceed with project design and the completion of related technical and regulatory processes including those required under CEQA.

2.3 Project Location

Burroughs MS is located at 600 South McCadden Place, Los Angeles, California 90005, approximately 5 miles west of downtown Los Angeles. Primary regional access is provided by Interstate 10 (I-10), approximately 2 miles to the south of the Project site and the Campus is located about 10 miles east of the Pacific Ocean (**Figure 2-1**, Project Vicinity). Major arterials providing regional and sub-regional access to the project vicinity include Wilshire Boulevard, immediately south of the Project site, and South La Brea Avenue, approximately 0.5 miles west of the Project site (**Figure 2-2**, Project Location). The Assessor's Parcel Number (APN) for the Project site is 5507-017-900. **Figure 2-3**, Existing Site Plan, shows the existing site plan and buildings.

2.4 Existing Setting

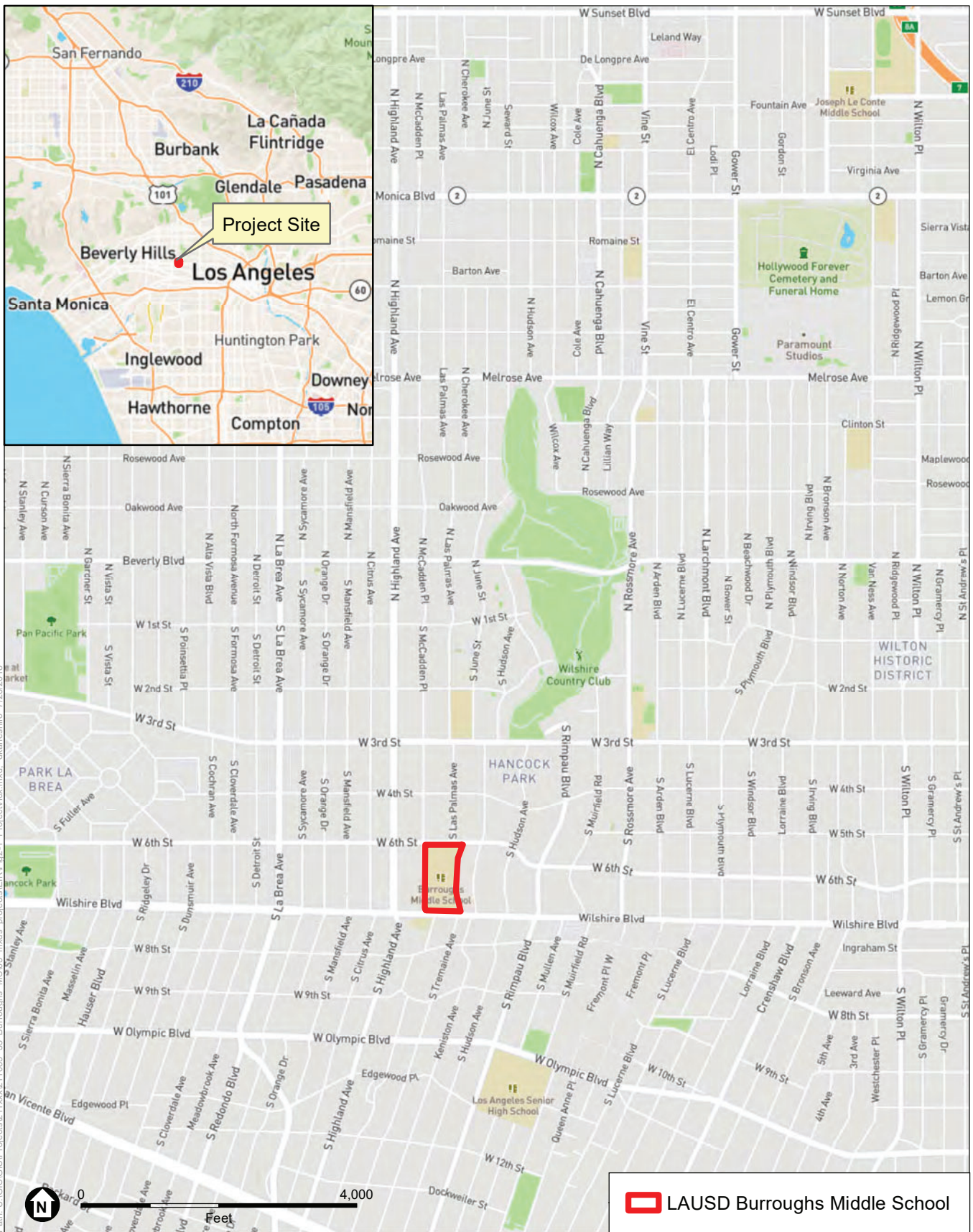
2.4.1 Existing Land Use

Burroughs MS is an operational middle school serving students in grades 6 through 8. The campus also houses a Magnet Center and a School for Advanced Studies that currently serves gifted and highly gifted students as part of LAUSD's voluntary integration program. The general topography of the Campus would be characterized as flat.

The Campus is comprised of 25 buildings and structures, including 14 portable buildings, all of which are over 30 years old. Buildings at the Project site include: a two-story Administrative and Auditorium Building, various classroom buildings, Food Service/Lunch Shelter Building, Gymnasium and portable buildings. The school is also developed with landscaped areas containing playfields and ornamental landscaping with trees, shrubs, and grass. **Table 2-1**, Characteristics of Existing Buildings, provides a summary of all the buildings on the Campus. **Figure 2-3**, Existing Site Plan, shows the existing Campus site plan and buildings.

³ LAUSD Regular Meeting Stamped Order Of Business. 333 South Beaudry Avenue, Board Room, 1 p.m., Tuesday, November 10, 2015 (Board of Education Report No. 159 – 15/16).

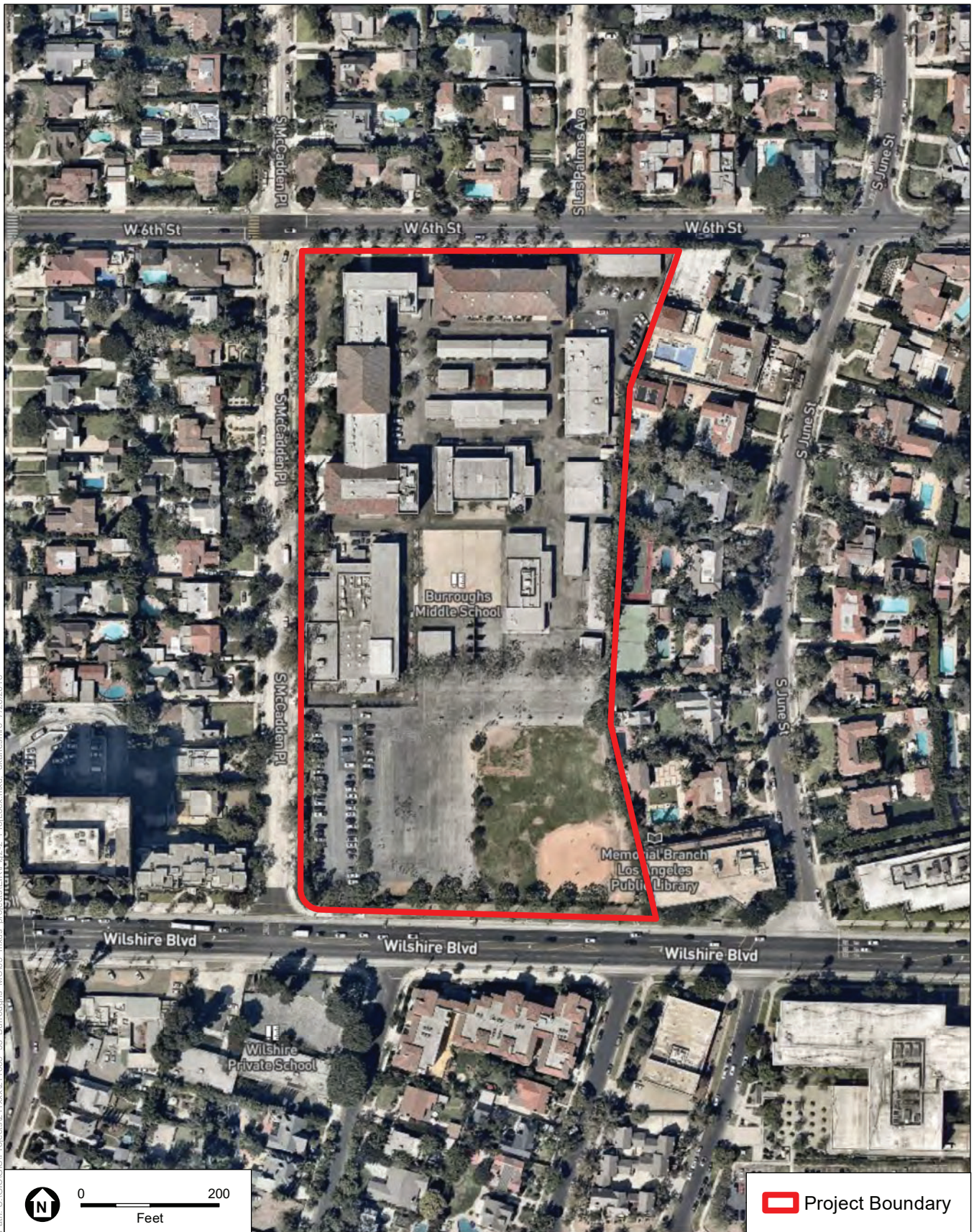
⁴ LAUSD Board of Education Report. February 5, 2019. Board Report Number 241 - 18/19



SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2-1
Project Vicinity



SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2-2
Project Location



D211065.33 - LAUSD_Burroughs MS EIR/05 Graphics-GIS-Modeling/03 EIR Figures/Illustrator

SOURCE: Los Angeles Unified School District, 2011

Burroughs Middle School Comprehensive Modernization Project

Figure 2-3
Existing Site Plan

Four buildings from 1926 create the original quadrangle (quad) of Burroughs MS. The main entrance to the Campus is on the west side through a large 2-story building that houses the Auditorium, Administration, and Classrooms. Restoration work has been completed on the 1,160 seat Auditorium and the Library on the second floor. On the north side is a 2-story Classroom building with tall windows. On the east side is a single-story Shop Building, that has been converted to classrooms. A Gymnasium Building to the south completes the quad. Three rows of old (1940's – 1950's) portable classroom buildings fill the quad. A multi-use classroom building was added to the southeast in the 1953. In 1978 a Girl's Gym and the Cafeteria Building, with classrooms above, were added.

The City of Los Angeles General Plan Land Use designation for the school property is 'Public Facilities.' The land use element of the General Plan is comprised of 35 community plans; they are the official guide to the future development of the City of Los Angeles. The Campus is located within the City of Los Angeles' Wilshire Community Plan Area and the Hancock Park Historic Preservation Overlay Zone (HPOZ).

The zoning for the school property is [Q]PF-1XL-HPOZ. The PF (Public Facilities) zone designation allows for the use and development of publicly owned land, including public elementary and secondary schools. [Q] means additional restrictions on building design, landscape buffer, signs, etc⁵⁶; '1' is Height District No.1; and 'XL' is Extra Limited Height District where no building or structure shall exceed two stories, nor shall the highest point of the roof of any building or structure exceed 30 feet in height. A Historic Preservation Overlay Zone (HPOZ) provides for review of proposed exterior alterations and additions to historic properties within designated districts.

LAUSD anticipates that it would comply with Government Code Section 53094 to render the local City of Los Angeles Zoning Ordinances inapplicable to the proposed Project.

**TABLE 2-1
CHARACTERISTICS OF EXISTING BUILDINGS**

Building ID	Building DSA Number	Building Name	Year Built	Building Square Footage	Building Type
Buildings to be Demolished/Removed					
17	A39162	Girls' Locker	1978	7,603	Permanent
20	A39162	Cafeteria-Classroom Building	1978	25,415	Permanent
Portable Buildings to be Removed					
23	A6582	Classroom Building	1935	912	Portable
22	A6492	Classroom Building	1935	912	Portable
6	A58913	Classroom Building	1948	1,859	Portable
24	A15745	Classroom Building	1957	1,056	Portable

5 The permanent [Q] condition imposed on the Project Site by the City states that no new building or structure shall be constructed within 5 feet of a lot zoned A or R, or have a front yard setback less than that which is required in the most restrictive zone of the lot(s) adjoining on either side of the subject property.

6 City of Los Angeles, Department of City Planning. June, 1996. Wilshire Public Facilities Ordinance. Available at: <https://planning.lacity.org/pdiscaseinfo/Home/GetDocument/OTRIZjBjNDUtZmZiMi00OTFkLWI0MWUeNDIzYzA5YzZmZDA30>.

Building ID	Building DSA Number	Building Name	Year Built	Building Square Footage	Building Type
5	A6655	Classroom Building	1949	1,824	Portable
25	A7256	Classroom Building	1949	864	Portable
3	A13356	Classroom Building	1955	1,907	Portable
16	A2677	Classroom Building	1940	1,509	Portable
8	A22091	Classroom Building	1962	2,520	Portable
21	A10407	Classroom Building	1953	1,824	Portable
10	M0051F (No DSA)	Storage	1920	200	Portable
26	X3865Y (No DSA Listed)	Classroom Building	2001	1,920	Portable
19	A20797	Sanitary Administrative Building	1962	896	Portable
11	L0029G	Tool Room	1925	168	Portable
12	M0586K (No DSA)	Storage	1941	80	Portable
Buildings to be Renovated					
1	A748	Main and Auditorium Building	1923	67,381	Permanent
2	A749	Boys' Gym	1935	11,868	Permanent
7	A24637	Classroom Building	1926	28,529	Permanent
9	A749	Shop Building	1926	9,032	Permanent
Buildings to Remain¹					
4	A7055	AA-610	1949	1,824	Portable
14	AA16058	All Purpose Building	1958	3,252	Permanent
18	A10407	AA-1143	1952	1,824	Portable

NOTES:

1. These buildings would receive interior and exterior paint and finish upgrades.

SOURCE: LAUSD, 2016

2.4.2 Campus History

The original plans for Burroughs MS were drawn in 1923 and the school was constructed shortly thereafter. The original school plant was constructed in the northwest corner of the school property, at the corner of 6th Street and S. McCadden Place. By 1925, the school was officially named John Burroughs Junior High School. Additional buildings were added, renovated, and demolished from 1927 – 1987.⁷ The original Campus was composed of four unreinforced masonry (URM) buildings in the Italian Renaissance Revival style, all of which have been designated as a historic resource under CEQA and were structurally refurbished at different points in time after the 1933 Long Beach Earthquake. For the 2016-2017 school year, total enrollment at Burroughs MS was 1,786 students.⁸

⁷ PCR Services Corporation, 2015. *Character Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California, 90005*

⁸ California Department of Education, 2017. 2016-17 Enrollment by Grade – John Burroughs Middle School Report (19-64733-6061410). Available at:

Burroughs MS is the home of the Magnet Center, a program that services 508 students.⁹ The Magnet Center is an advanced academic program that focuses on mathematics, language arts, science, and social studies. The program is designed to meet the needs of students who require an academically demanding curriculum.

The Campus has been assigned a California Historic Resources status code of “3S” and “3CS”, noting that the Campus appears individually eligible for the National Register of Historic Places (NRHP) through survey evaluation and is eligible for the California Register (CR) as an individual property through survey evaluation. The Campus is seen as a single historical resource—the Burroughs MS Historic District—with the buildings, structures, and other features, such as landscaping, as either contributing or non-contributing elements, or components, of that historical resource. **Figure 2-4**, Contributing Buildings and Landscapes, identifies buildings, structures, and landscape features that contribute to the significance of the Campus.

2.4.3 Surrounding Land Uses

Land uses surrounding the Project site are shown in **Figure 2-5**, and consist primarily of low-density residential uses.

2.5 Project Objectives

State CEQA Guidelines Section 15124 requires an EIR to include a statement of objectives sought by the proposed Project. The objectives assist in developing the range of Project alternatives to be evaluated in the EIR.

The LAUSD SUP includes objectives, goals, and principles that are intended to guide the development of facilities that improve student health, safety, and educational quality.

The SUP goals and principles established by the Board of Educations are as follows:

1. Schools should be physically safe and secure;
2. School building systems should be sound and efficient; and
3. School facilities should align with instructional requirements and vision.

Furthermore, six core objectives have been established for Comprehensive Modernization Projects undertaken under the SUP:

- The buildings that have been identified as requiring seismic upgrades must be addressed.

<https://dq.cde.ca.gov/dataquest/dqquery/enrgrdlevels.aspx?aggllevel=School&year=2016-17&cids=19647336061410/>. Accessed February 6th, 2018.

⁹ Burroughs Middle School, 2018. *Magnet Program*. Available at: https://www.burroughsms.org/apps/pages/index.jsp?uREC_ID=379194&type=d&pREC_ID=859005. Accessed February 6th, 2018.

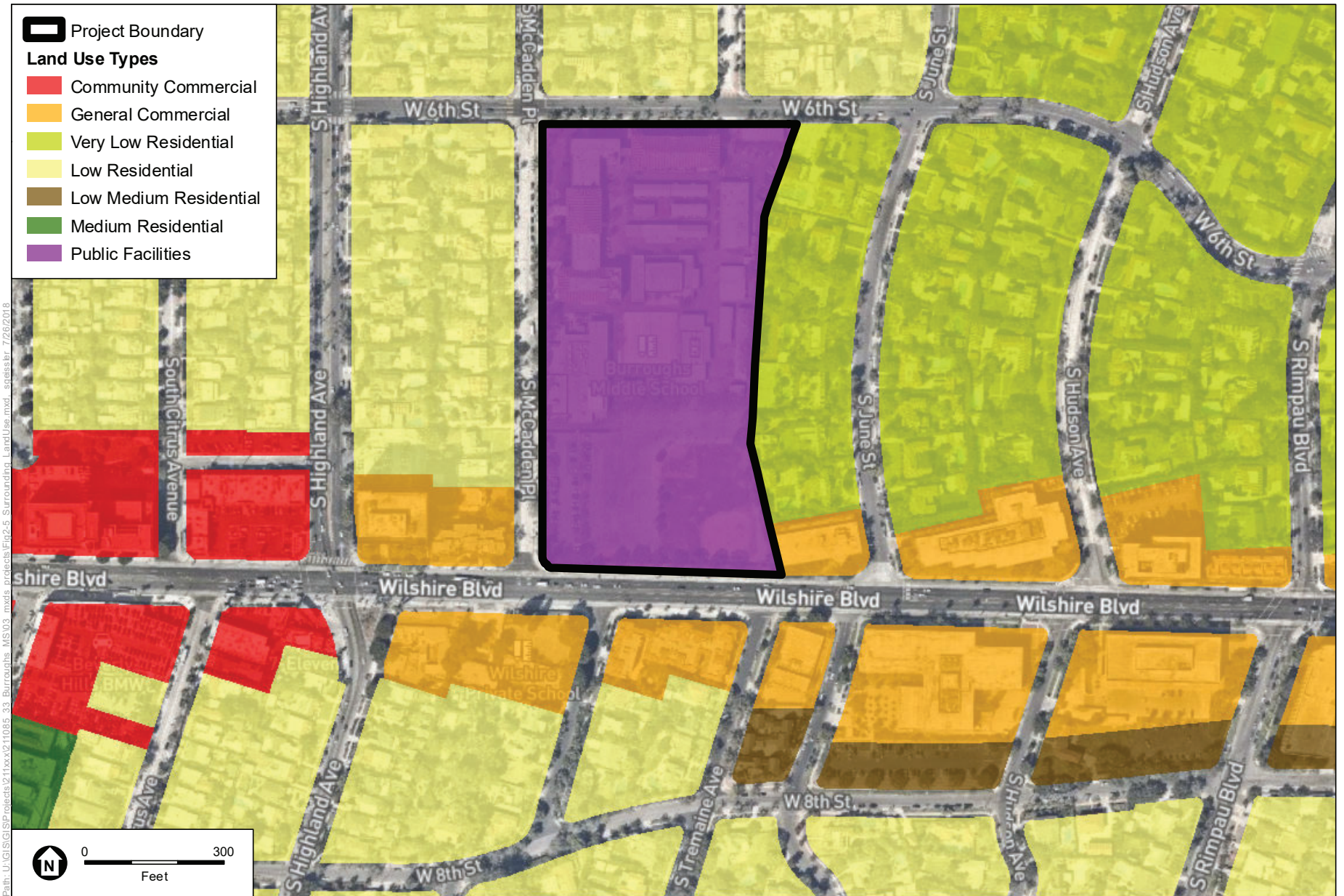


SOURCE: Los Angeles Unified School District, 2002; ESA, 2019

Burroughs Middle School Comprehensive Modernization Project

Figure 2-4
Contributing Buildings and Landscapes

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SOURCE: ESRI

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2-5
Land Use

- The buildings, grounds and site infrastructure determined to have significant/severe physical conditions; that already do, or are highly likely (in the near future) to pose a health and safety risk; or that negatively impact a school's ability to deliver the instructional program and/or operate, must be addressed.
- The school's reliance on relocatable buildings, especially for K-12 instruction, should be significantly reduced.
- 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 provisions of the Modified Consent Decree (MCD).
- The exterior conditions of the school site should be addressed to improve the visual appearance including landscape, hardscape, and painting.
- The interior physical conditions of classroom buildings that would otherwise not be addressed should be improved.

As these objectives, goals and principals are applied to Burroughs MS Campus and community, the following project-specific objectives have been developed:

Objective #1: Ensure that the buildings that have been evaluated and identified as requiring seismic upgrades are addressed.

Objective #2: Provide upgrades throughout the Campus to improve accessibility for all students and to comply with the requirements of the Americans with Disabilities Act (ADA) Title II Regulations pursuant to the District's self-evaluation and transition plan under the ADA (October 10, 2017).

Objective #3: Provide educational facilities that meet California Department of Education (CDE) requirements and LAUSD educational specifications and design guidelines.

Objective #4: Maximize site efficiency and outdoor playground space for students.

Objective #5: Create a modern learning environment for students in the 21st century.

Objective #6: Respect the historic significance of the Campus through rehabilitation.

Objective #7: Reduce the District's reliance on portable classrooms.

Objective #8: Revitalize the urban forest by planting new trees and replacing aging trees and trees in poor health with native, climate-adapted species.

Objective #9: Continue to accommodate the existing capacity and specialized needs of all programs at Burroughs MS, including the Gifted/High Ability Magnet Center program that is part of the District's Integration Program.

Objective #10: Maximize the use of limited bond funds to provide modern and permanent instructional facilities.

Objective #11: Reduce the amount of storm water runoff from the Campus.

Objective #12: Improve Campus safety, supervision, and pedestrian and vehicular circulation, including emergency vehicles and personnel.

Objective #13: Increase energy efficiency of the Campus by upgrading or replacing facilities and incorporating standards developed by the Collaborative for High Performance Schools (CHPS).

2.6 Project Characteristics

The proposed Project would result in demolition of and/or modifications to existing buildings, potentially including historic buildings and resources. However, the project would be designed to preserve and enhance character-defining features associated with the Campus. Additionally, the proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.¹⁰

Upon completion of project construction, the Burroughs MS would have 71 classrooms including 6 existing classrooms, 38 remodeled classrooms, and 27 new classrooms. Approximately 7,000 square feet (sf) of existing area is to remain (with minor renovations such as new paint). Table 2-1 shows details about the characteristics of the existing buildings to be demolished and/or renovated.

As discussed in Section 1.3.2, based on comments received during the scoping period, the scope of the Project has been modified since the release of the Notice of Preparation (NOP) to reduce or avoid environmental impacts. State 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.”

As outlined in Table 2-1 and shown in **Figure 2-6**, Demolition Plan, the proposed Project would include demolition of the following facilities:

- Cafeteria-Classroom Building (Bldg.20)
- Flammable Storage Building (Bldg. 13)
- Girls’ Locker Building (Bldg. 17)
- Approximately 18 standard and specialty classrooms located in 11 relocatable or portable buildings

The total demolition footprint of the proposed Project would be approximately 51,500 sf.

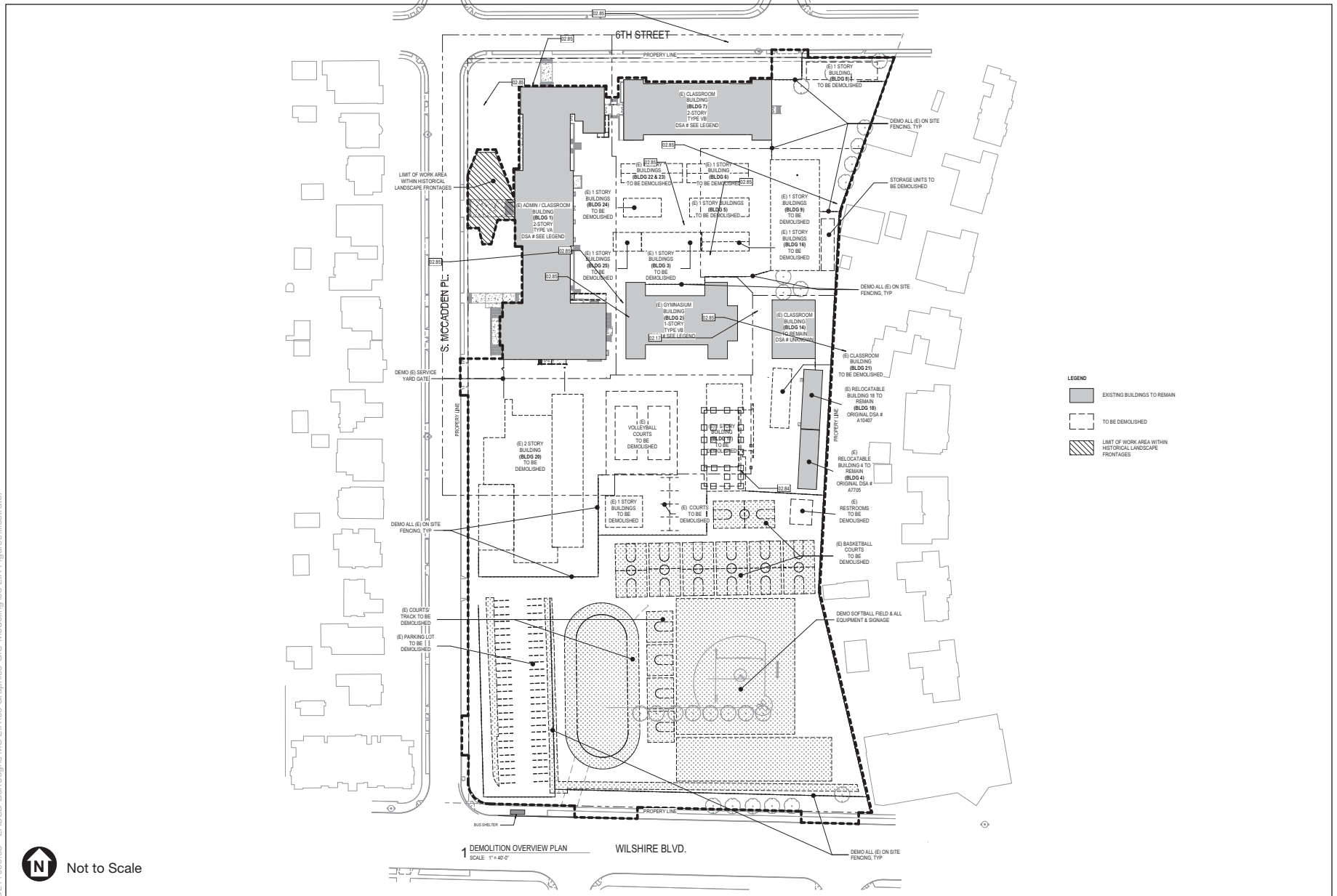
The proposed Project would include construction of the following facilities that would be designed, constructed, and furnished/equipped to current code requirements and District design standards (**Figure 2-7**, Proposed Site Plan, shows the proposed site plan):

- Two One-Story Specialty Classroom Buildings (Bldg. A)
 - Approximately three specialty classrooms (instrumental music, maker space, and flexible drama) and support spaces¹¹ split into two pavilions

¹⁰ LAUSD. January 2015. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.

¹¹ Support spaces include storage, custodian rooms, and boys’ and girls’ restrooms.

D211065.33 - LAUSD_Burroughs MS EIR/05 Graphics-GIS-Modeling/03 EIR_Figures/Illustrator



SOURCE: Ehrlich Yanai Rhee Chaney Architects, 2018

Burroughs Middle School Comprehensive Modernization Project

Figure 2-6
Demolition Plan





D211065.33 - LAUSD, Burroughs MS EIR/05 Graphics-GIS-Modeling/03 EIR Figures/Illustrator

SOURCE: Los Angeles Unified School District, 2018

Burroughs Middle School Comprehensive Modernization Project

Figure 2-7
Proposed Site Plan



- Three-Story Food Services + MPR/ Classroom/ Lockers (Bldg. B)
 - Approximately one student store, boys' and girls' lockers, food services, and indoor dining/MPR facilities on the first floor
 - Approximately 14 standard classrooms on the second floor
 - Approximately 2 standard classrooms and 8 science classrooms on the third floor

The total construction footprint of the proposed Project would be approximately 76,000 sf. The exterior façade of both new Buildings A and B include brick masonry at the ground floor level to create a horizontal emphasis that is reinforced by the belt courses seen in the existing historic structures. The patterning of the brick would allude to traditional brick assembly techniques, but would be composed to create visual changes at various scales through glazed unit accents which would be animated by the changing colors and reflections cast throughout the day. The upper stories of the Buildings would be distinct and complimentary to the brick base. The upper stories of Building B would be clad with a high-pressure laminate sheet panel cladding in a light stone-like color to compliment the heavy masonry. See **Figure 2-8**, Building A – View of Building A Looking Northwest at East Pavilion, and **Figure 2-9**, Building B – View of Building B from Playing Field Looking Northwest, for renderings of Buildings A and B.

Modernization and/or upgrades would be completed for the following buildings:

- Administrative/Library/Auditorium (Bldg. 1)
- Boy's Gymnasium Building (Bldg. 2)
- Classroom Building (Bldg. 7)
- AA-610 (Bldg. 4)
- Shop Building (Bldg. 9)¹²
- All Purpose Building (Bldg. 14)
- AA-1143 (Bldg. 18)

The proposed improvements to existing buildings include the following:

- Administrative/Library/Auditorium (Bldg. 1)
 - Seismic retrofit
 - Reconfiguration of interior walls while maintaining existing stairs and central corridors
 - Construction of an ADA compliant entry ramp on the west side of the building

¹² The Project Description contained in the February 2018 Initial Study called for demolition of the Shop Building and replacement with a new two-story classroom building. However, based on public comments received during the scoping period regarding aesthetics (blocking viewshed and shade/shadow impacts) and cultural resources (loss of a contributing historic resource), the Project has been modified to retain and modernize the existing Shop Building.



D211085.33 - LAUSD Burroughs MS EIR/05 Graphics-GIS-Modeling 03 EIR Figures/Illustrator

SOURCE: Ehrlich Yanai Rhee Chaney Architects, 2019

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2-8
View of Building A in the Academic Quad Looking Northeast



D211085.33

SOURCE: Ehrlich Yanai Rhee Chaney Architects, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2-9
View of Building B from the Playing Field Looking Northwest

- Renovate and reconfigure the south basement section to accommodate M&O functions, including general storage, receiving storage, restrooms, and plant manager. A new freight-sized elevator would be installed on the east side of the Auditorium in order to access the basement area.
- Auditorium upgrades
 - Fix broken seats and install seat padding and upholstery
 - Install automatic seat uplift for egress compliance
 - Provide designated aisle seats for ADA compliance
 - Install additional aisle lighting
 - Alter seating layout to provide accessible route to the performance area
 - Install handrails where required in seating aisles
 - Install guardrails in the balcony
 - Construct new control booth under balcony seating
 - Remove the fire curtain
 - Install guardrails around backstage technical circulation levels and grid iron
 - Install fall arrest points for workers at the first row of balcony
 - Install smoke vents or a smoke evacuation system over the stage
 - Replace all cotton drapery with inherently flame-retardant (IFR) drapes
 - Repair stage floor
 - Relocate balcony rail lighting
 - Remove interior wall backstage
 - Reinforce the gridiron
 - Electrical upgrades
 - Upgrade the lighting system including switching to light-emitting diode (LED) lights
- Boys' Gymnasium Building (Bldg. 2)
 - Seismic retrofit
 - Minor reconfiguration of interior walls (Practice Gym will remain the same size)
- Classroom Building (Bldg. 7)
 - Seismic retrofit
 - Reconfiguration of interior walls while maintaining existing stairs and central corridors
- Shop Building (Bldg. 9)
 - Seismic retrofit
 - Reconfiguration of interior walls and entry points to accommodate seven classrooms (six standard and one special education) and support spaces

- General Classroom Buildings (Bldgs. 4, 14, 18)
 - Interior and exterior paint and finish upgrades

The proposed Project would modify and remodel 117,000 sf of building space (100,000 sf, not including basement areas).

Table 2-2, Proposed Project (Demolition, Remodel, and Construction), summarizes the changes to the Campus. Upgrades to the Administrative/ Library/Auditorium Building, Gymnasium Building, and Classroom Building would entail seismic retrofits. Seismic retrofitting would be completed in compliance with the seismic safety requirements of the LAUSD Supplemental Geohazard Assessment Scope of Work, California Building Code, Division of State Architect, and California Department of Education.

Site upgrades that would be completed throughout the Campus include:

- Site-wide infrastructure, including plumbing, electrical, and storm drain
- Site-wide upgrades to remove identified and prioritized barriers to program accessibility
- Landscape, hardscape, and exterior paint

The project would include improvements as required by the ADA, Division of the State Architect (DSA), CEQA, Office of the Independent Monitor (OIM) for ADA program accessibility, and any other required improvements or mitigations to ensure compliance with local, state, and/or federal facilities requirements.

**TABLE 2-2
PROPOSED PROJECT (DEMOLITION, REMODEL, AND CONSTRUCTION)**

Bldg. ID*	Bldg. DSA No.	Building Name	Class-rooms	Demolition/ Removal (sf)	Remodel (sf)	New Construction (sf)	Existing to Remain (sf)
1	A748	Main and Auditorium Building			67,381		
2	A749	Boys' Gym			11,868		
3	A13356	Classroom Building		1,907			
4	A7055	Classroom Building					1,824
5	A6655	Classroom Building		1,824			
6	A58913	Classroom Building		1,859			
7	A24637	Classroom Building			28,529		
8	A22091	Classroom Building		2,520			
9	A749	Shop Building			9,032		
10	M0051F (No DSA)	Storage		200			
11	L0029G	Tool Room		168			
12	M0586K (No DSA)	Storage		80			
14	A16058	All Purpose Building					3,252
16	A2677	Classroom Building		1,509			
17	A39162	Girls' Locker		7,603			

Bldg. ID*	Bldg. DSA No.	Building Name	Class-rooms	Demolition/ Removal (sf)	Remodel (sf)	New Construction (sf)	Existing to Remain (sf)
18	A10407	Classroom Building					1,824
19	A20797	Sanitary Administrative Building		896			
20	A39162	Cafeteria-Classroom Building		25,415			
21	A10407	Classroom Building		1,824			
22	A6492	Classroom Building		912			
23	A6582	Classroom Building		912			
24	A15745	Classroom Building		1,056			
25	A7256	Classroom Building		864			
26	X3865Y (No DSA Listed)	Classroom Building		1,920			
A	-	Two One-Story Specialty Classroom Buildings	3			9,584	
B	-	Three-Story Food Services; MPR/Classroom/Lockers	24			66,452	
Total			27	51,469	116,815	76,036	6,900

sf = Square footage

2.6.1 Design Strategy

The proposed Project site design is strategically integrated with the architectural planning to best serve the needs of students, faculty, adjacent community and the District, while highlighting the Campus' existing historic elements. In addition to meeting essential functional and operational needs, the Campus landscape provides opportunities for students, faculty, and staff to engage with the nature. The landscaped areas would serve multiple purposes: functional, educational, and experiential.

2.6.2 Circulation, Access and Parking

The proposed Project is designed to improve site circulation, access (including ADA-compliant path of travel upgrades), and parking at the Campus. Vehicular and pedestrian access to Burroughs MS is currently provided via McCadden Place and West 6th Street. The school's main public entrance for vehicular traffic is the existing southern parking lot at the northeast corner of McCadden Place and Wilshire Boulevard, which is accessed by one 25-foot-wide driveway off of McCadden Place approximately 250 feet north of Wilshire Boulevard. The main student entrance is located on McCadden Place. Student drop-off / pick-up currently occurs along the east (school) side of McCadden Place. The proposed Project would not change the school entrances or parent drop-off/pick-up zone. However, as shown on **Figure 2-7**, the southern parking lot would be expanded to include a relocated school bus loading and unloading area (eliminating the existing school bus loading and unloading along McCadden). The Project would increase the number of onsite parking spaces from 98 to 146 spaces and would add two right-in/ right-out only driveways along Wilshire Boulevard to provide access to the expanded southern parking lot. Additionally, the Project would relocate the

existing driveway on McCadden Place closer to Wilshire Boulevard, which would allow the existing loading and unloading zone for parent drop-off/pick up along McCadden Place to be extended south by approximately 150 feet.

2.6.3 Landscape Improvements

The Campus is developed with: 1) buildings; 2) paved areas, including parking lots, hardcourts, and walkways; and 3) landscaped areas, including turf playfields (i.e., football field and baseball/softball field) and ornamental landscaping with trees, shrubs, and grass. There are currently 195 trees within and along the boundaries of the Project site and two of the trees are protected native coast live oaks. There are 37 City of Los Angeles street trees that border the Project site along the sidewalks on Wilshire Boulevard, South McCadden Place, and West 6th Street.

Landscape improvements may include repair or replacement of irrigation systems, including: lawn sprinklers and sprinkler controls; trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls. Historic landscaping (**Figure 2-4**, significant primary landscape) fronting the Administrative/Library/Auditorium (Bldg. 1) and Classroom Building along the northwestern boundary of the Project site would be preserved.¹³ Any trees that would be trimmed or removed as part of the Project would comply with the requirements of the LAUSD OEHS Tree Trimming and Removal Procedure and the City of Los Angeles Tree Ordinance.

The removal of existing portable buildings in the vicinity of the historic buildings creates a new outdoor amenity space, at the center of which will be a new one-story buildings comprised of an east and west wing separated by a landscaped pathway. This new amenity space is envisioned as a tree-shaded courtyard organized by a collection of meandering gardens that will be designed to weave both the historic buildings and new buildings to each other, as well as relate new architecture to historic architecture and elevate perception of this area as a cohesive unified campus. The ‘Quad Courtyard’ will be multi-functional, designed for a variety of ‘calm’, sedentary uses with focus on creating diverse opportunities or groups to gather both socially and for alternative learning experiences.

Foundation planting would be used to buffer access to the face of all school buildings where feasible. A 12-inch wide crushed gravel path would follow the perimeter of the buildings behind the planting to allow maintenance access. Foundation plants would be low-maintenance, climate-adapted shrubs, planted in mixed hedges.

Evergreen shade trees at a minimum of 36-inch box size are also proposed within all parking areas and paved pedestrian Campus spaces.

A row of Sycamore trees would be provided along McCadden Place starting at the new Food Services Building (Building B) down to southern parking lot. Torrey Pine trees would be provided along the northeastern boundary of the Campus.

¹³ PCR Services, Character Defining- Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, Prepared for Los Angeles Unified School District (LAUSD), July 28, 2015.

2.6.4 Infrastructure

The Project site is currently served by existing utilities that are at the end of their service life and need replacement. Site-wide infrastructure improvements would be completed as part of the proposed project for electrical, gas, sewer, water, and drainage.

Existing storm water runoff is collected by a system of building roof drains and catch basins throughout the site and conveyed by a private, onsite underground storm drain system to discharge to gutters through a series of parkway drains and curb scuppers along the public street adjacent to the perimeter of the Campus. Storm water runoff from new construction would be intercepted by roof drains and catch basins and discharged through a combination of new and existing parkway drains and curb scuppers along the public streets adjacent to the perimeter of the Campus. Storm water runoff would be conveyed through best management practices (BMPs) prior to discharge. New parkway drains may be constructed, and existing parkway drains would be reconstructed and removed due to poor condition or relocation of storm drain discharge locations.

Based on the Comprehensive Geotechnical Report,¹⁴ infiltration into site subsoils is not feasible. Capture and Use would be implemented where feasible. These systems would consist of underground or above-ground storage tanks, or cisterns, that collect and store storm water runoff for reuse as irrigation. This system would connect directly to conventional irrigation systems, and would only operate when storm water is present in the storage tanks or cisterns. The system would be implemented in areas where irrigation demand is adequate to support discharge of mitigated storm water volumes.

Existing domestic water service connections are located along public streets adjacent to the perimeter of the Campus at South McCadden Place, 6th Street, and Wilshire Boulevard. Existing water services, meters, backflow assemblies, pressure regulators (if needed) and onsite pipe systems would be upgraded as needed to meet additional demand from plumbing fixture counts at existing buildings. New onsite domestic water supply pipes would be installed to connect domestic water services to new buildings and structures.

2.6.5 Utility Providers

Los Angeles Department of Water and Power (LADWP) provides electric and potable water service to the Project site. The Southern California Gas Company (SCGC) provides natural gas to the Project site. The City of Los Angeles Bureau of Sanitation is the sewer service provider for the Project site.

¹⁴ Amec Foster Wheeler, 2015. Preliminary Geotechnical Investigation, Proposed Modernization, John Burroughs Middle School. August 10, 2015.

2.6.6 Security and Safety Features

With the exception of the northwest boundary of Burroughs MS along South McCadden Place and West 6th Street, the perimeter of the Campus is surrounded by an 8-foot metal security fence. There is currently electronic access control at the school entrances and parking lots. The improvements to the Project site would include similar fencing and security features. Additionally, new internal fencing would be installed to allow for potential community use of athletic areas that can be accessed separately from the academic core of the Campus. All new structures would be equipped with fire suppression sprinkler systems and lighting on the exterior walls.

New sources of lighting would include hoods, filtering louvers, glare shields, and landscaping. All entries would be illuminated to provide safe access. The new parking lots would have lighting that would be focused and shielded to reduce glare and light spillover. Site lighting would be designed to comply with the LAUSD School Design Guide and have minimal offsite impact and contribution to sky glow by controlling the amount of uplight. Lighting intensity from the new sources would be reduced to no more than 2 foot-candles onto adjacent residences. Outdoor lighting of architecture and landscape features and interior lighting would be designed to minimize light trespass to the outside from the interior.

2.6.7 Sustainability Features

LAUSD is committed to sustainable construction principles, and has been a member of the Collaborative for High Performance Schools (CHPS) since 2001. CHPS has established criteria for the development of high performance schools to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are energy efficient, material efficient, easy to maintain and operate, environmentally responsive, safe and secure, a community resource, and adaptable to changing needs.

School facilities seeking CHPS certification complete a scorecard and must achieve a certain number of points to be certified. Some of the sustainable design features that would be incorporated into the proposed Project include easy access to public transportation, provision of bicycle racks, onsite treatment of stormwater runoff, “cool-roof” building materials, lighting that reduces light pollution, water- and energy-efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials. The proposed Project’s new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. All new construction would exceed by 10 percent or more the California Title 24, Part 6 energy efficient standards.

2.6.8 Methane Mitigation

The Project site is located in the City of Los Angeles Methane Zone. In order to assess potential health and safety impacts, a methane assessment was conducted.¹⁵ Field measurements reported concentrations of methane above 12,500 parts per million (equal to background levels). Based upon

¹⁵ Leighton Consulting, Inc. Draft Final Methane Monitoring Report for Burroughs Middle School Comprehensive Modernization Project, October 2017

the results of the soil gas survey, the site is categorized as a Design Level V per City of Los Angeles Department of Building & Safety (LADBS) Methane Mitigation Standards. A Design Level V specifies the minimum methane mitigation measures required for a site within the Los Angeles City Methane Zone, which includes the installation of an impermeable gas membrane, passive subsurface under-slab venting system for slab-on-grade construction, and a gas detection and alarm system with provisions to automatically activate mechanical under-slab soil gas extraction and enhanced ventilation of ground floor occupied spaces. Incorporation of these methane mitigation features will ensure that impacts related to methane are less than significant.

2.6.9 Removal Action Workplan

A Preliminary Environmental Assessment Equivalent (PEA-E) was conducted at the site in 2017 by Leighton Consulting, Inc.¹⁶ Field sampling and analysis was conducted to determine whether historical uses have resulted in hazardous substances at the Project site as part of the PEA-E. The results of the laboratory analysis showed levels of arsenic and lead concentrations were above residential screening thresholds. A Removal Action Workplan (RAW)¹⁷, describing the contamination, excavation dimensions, methodology, transportation and disposal, confirmation sampling plan, methods to ensure worker and public health safety, and cleanup goals, has been prepared. The contaminated soils would be removed prior to construction of each phase with methods intended to reduce dust emissions. Further, community notices will be distributed in accordance with LAUSD policy. All cleanup activities under the RAW would adhere to applicable state and local policies and regulations regarding excavation, removal, and disposal of affected materials. The volume of impacted soil that is addressed by the soil removal action is estimated to be 160 cubic yards (cy).

2.6.10 Construction Schedule

Construction activities are anticipated to be initiated in fall 2020 and to be completed in late 2025.

Construction of the proposed Project would include on-site demolition, excavation, and grading activities. In addition, trucks would be intermittently delivering building materials to the site. The proposed Project would include the following activities, with limited-to-no overlap between phases. All construction would occur during daytime hours, specifically 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturdays.¹⁸

Demolition activities would be managed and conducted by the District's Facilities Environmental Technical Unit (FETU) in accordance with the District's standard practices. FETU would be responsible for ensuring the safe removal of potential asbestos containing materials, lead and PCBs that may be encountered during construction. LAUSD would ensure that all construction related activities are completed in accordance with applicable federal, state, and local regulations, including but not limited to the EPA Guidance on Conducting Non-Time-Critical Removal Actions Under

¹⁶ Leighton Consulting, Inc. Draft Final Preliminary Environmental Assessment Equivalent Document for Burroughs Middle School Comprehensive Modernization Project, October 2017

¹⁷ Leighton Consulting, Inc. Final Draft Removal Action Workplan for Burroughs Middle School Comprehensive Modernization Project, February 2018

¹⁸ No construction would occur during Sunday or Holidays per the City of Los Angeles regulations.

Comprehensive Environmental Response, Compensation, and Liability Act, National Oil and Hazardous Substances Pollution Contingency Plan, and all applicable LAUSD specifications, and standards. Construction would also comply with the applicable SCs, which include, but are not limited to, **SC-USS-1**, which requires that any construction waste will be recycled to the maximum extent feasible.¹⁹

As Burroughs MS is an active campus, construction of the new buildings and modernization must be phased in a way to maintain the academic functions. To complete the comprehensive campus-wide modernization while school is in session, the construction process must be broken down into several phases so that the school can continue operating. Because of active school operation, less than five acres (contiguous) on Campus would be disturbed at any one time. An average of 50 workers would be onsite when students are present and a maximum of 150 workers would be onsite during peak periods (i.e., during summer break). Table 2-3 shows the types and amounts of construction equipment that are anticipated to be used for implementation of the Project.

**TABLE 2-3
CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Phase (Duration)	Activities	Equipment	Maximum Number/Day
1A (4 weeks)	Paving Building Construction	Pavers	2
		Paving Equipment	2
		Rollers	2
		Cranes	1
		Forklifts	1
		Generator Sets	1
		Tractors/Loaders/Backhoes	1
		Welders	1
1B (4 weeks)	Demolition	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
1C (8 weeks)	Electrical and LV Trench	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
1D (6 months)	Utilities Installation Temporary Parking Bungalow Installation	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
		Pavers	2

19 LAUSD OEHS, "School Upgrade Program Final Environmental Impact Report," <http://achieve.lausd.net/ceqa>, Adopted by the Board of Education on November 10, 2015.

Phase (Duration)	Activities	Equipment	Maximum Number/Day
		Paving Equipment	2
		Rollers	2
		Cranes	1
		Forklifts	1
		Generator Sets	1
		Tractors/Loaders/Backhoes	1
		Welders	1
2A (18 months)	Seismic Modification/Grading (B-1)	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2B (28 months)	Demolition (B-20, B-26, B-17, B-19) Construction (Building B)	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
		Cranes	1
		Forklifts	1
		Generator Sets	1
		Tractors/Loaders/Backhoes	1
		Welders	1
		Air Compressor	1
2C (16 months)	Seismic Modification/Grading (B-7)	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2D (12 months)	Seismic Modification/Grading (B-2)	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2E (10 months)	Seismic Modification/Grading (B-9)	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2F (15 months)	Demolition Construction (Building A)	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
		Cranes	1
		Forklifts	1
		Generator Sets	1
		Tractors/Loaders/Backhoes	1
		Welders	1
		Air Compressor	1

Phase (Duration)	Activities	Equipment	Maximum Number/Day
2G (8 months)	Seismic Modification/Grading (B-4, B-14, B-18)	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2H (TBD)	Modification/Grading Interim Housing	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
2I (6 months)	Southern Parking Lot Paving	Pavers	2
		Paving Equipment	2
		Rollers	2
3A (6 months)	Interim Housing Demolition	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
3B (6 months)	Construction (including modification/grading) of New Field	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
3C (7 months)	Demolition (B-8) Paving North Parking Lot	Concrete/Industrial Saws	1
		Crushing/Proc. Equipment	1
		Excavators	1
		Other Construction Equipment	1
		Rubber Tired Dozers	1
		Pavers	2
		Paving Equipment	2
		Rollers	2

2.7 Project Plan and Building Design

The Project is subject to the CDE design and siting requirements, and the school architectural designs are subject to review and approval by the California Division of the State Architect (DSA). The proposed Project, along with all other SUP-related projects, is required to comply with specific design standards and sustainable building practices. Certain standards assist in reducing environmental impacts, such as the California Green Building Code,²⁰ LAUSD Standard Conditions of Approval (SC), and the Collaborative for High-Performance Schools (CHPS) criteria.²¹

Collaborative for High-Performance Schools (CHPS). The proposed Project would include CHPS criteria points under seven categories: Integration, Indoor Environmental Quality, Energy, Water, Site, Materials and Waste Management, and Operations and Metrics. LAUSD is committed to sustainable

²⁰ California Green Building Standards Code, Title 24, Part 11, of the CCR.

²¹ The Board of Education's October 2003 Resolution on Sustainability and Design of High Performance Schools directs staff to continue its efforts to ensure that every new school and modernization project in the District, from the beginning of the design process, incorporate CHPS criteria to the extent possible.

construction principles and has been a member of the CHPS since 2001. CHPS has established criteria for the development of high-performance schools to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are healthy, comfortable, energy efficient, material efficient, easy to maintain and operate, commissioned, environmentally responsive site, a building that teaches, safe and secure, community resource, stimulating architecture, and adaptable to changing needs. The proposed Project would comply with CHPS and LAUSD sustainability guidelines. The design-build team would be responsible for incorporating sustainability features into the proposed Project, including onsite treatment of storm water runoff, roofing that meets “cool roof” building certification requirements, lighting that reduces light pollution, water and energy-efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials.

Project Design Features. LAUSD PDFs are environmental protection features that modify a physical element of a site-specific project and are depicted in a site plan or documented in the project design plans. PDFs may be incorporated into a project design, or description, to offset or avoid a potential environmental impact and do not require more than adhering to a site plan or project design. Unlike mitigation measures, PDFs are not special actions that need to be specifically defined or analyzed for effectiveness in reducing potential impacts.

Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects. Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects (SCs) were adopted by the BOE on February 5, 2019 (Board Report Number 241-18/19). SCs are environmental standards that are applied to District construction, upgrade, and improvement projects during the environmental review process by the OEHS CEQA team to offset potential environmental impacts. The SCs were largely compiled from established LAUSD standards, guidelines, specifications, practices, plans, policies, and programs. For each SC, applicability is triggered by factors such as the project type and existing conditions. These SCs are implemented during the planning, construction, and operational phases of the projects. The BOE adopted a previous version of the SCs on November 10, 2015 (Board Report Number 159-15/16). They were originally compiled as a supplement to the Program EIR for the SUP, which was certified by the BOE on November 10, 2015 (also Board Report No. 159-15/16). The most recently adopted SCs were updated in order to incorporate and reflect recent changes in the laws, regulations and the District’s standard policies, practices and specifications (e.g., the Design Guidelines and Design Standards, which are routinely updated and are referenced throughout the Standard Conditions).

Mitigation Measures. If, after incorporation and implementation of federal, state, and local regulations; CHPS prerequisite criteria; PDFs; and SCs, there are still significant environmental impacts, then feasible and project-specific mitigation measures are required to reduce impacts to less than significant levels. Mitigation under State CEQA Guidelines Section 15370 includes:

- Avoiding the impact altogether by not taking a certain action, or parts of an action.
- Minimizing impacts by limiting the degree, or magnitude, of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing, or providing substitute resources, or environments.

Mitigation measures must further reduce significant environmental impacts above and beyond compliance with federal, state, and local laws and regulations; PDFs; and SCs.

The specific CHPS prerequisite criteria and SCs are identified in the tables under each CEQA topic.²² Federal, state, regional, and local laws, regulations, plans, and guidelines; CHPS criteria; PDFs; and LAUSD conditions are considered part of the Project and are included in the environmental analysis.²³

2.8 Project Approvals

It is anticipated that approval required for the proposed Project would include, but may not be limited to, the following:

Responsible Agencies

- City of Los Angeles, Public Works Department. Permit for curb, gutter, and other offsite improvements.
- City of Los Angeles, Fire Department. Approval of plans for emergency access and emergency evacuation.
- City of Los Angeles, Department of Transportation. Approval of haul route.

Reviewing Agencies

- South Coast Air Quality Management District (SCAQMD). Approval of Construction Emission/Dust Control Plan and architectural coatings.
- Los Angeles Regional Water Quality Control Board (RWQCB). Approval of water quality management plan.
- State Water Resources Control Board (SWRCB) Notice of Intent (NOI) to obtain permit coverage. General Construction Permit regulates stormwater and nonstormwater discharges associated with construction activities.
- California Department of General Services, DSA. Approval of site-specific project construction drawings.
- California Department of Education. Final plan approval for development of on-site improvements.

²² CHPS criteria are summarized. The full requirement can be found at <http://www.chps.net/dev/Drupal/California>.

²³ Where the LAUSD Standard Conditions of Approval identifies actions to be taken, it is understood that the Project proponent would implement all LAUSD actions for this Project.

CHAPTER 3

Environmental Analysis

This Draft EIR is prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.), the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), and applicable rules and regulations of regional and local entities. This Draft EIR evaluates the potential environmental impacts associated with the construction and operation of the proposed Project and is intended to serve as an informational document for the public agency decision-makers and the public regarding the proposed Project.

3.0 Scope of the Environmental Impact Analysis

In accordance with Section 15126 of the CEQA Guidelines, Chapter 3 provides an analysis of the direct and indirect, Project-specific and cumulative, environmental effects of the proposed Project with respect to existing conditions at the time the NOP was published in 2018 (Appendix A). The determination of whether an impact is significant is based on the significance thresholds and methodology that have been identified for each environmental issue.

This Draft EIR follows the CEQA Guidelines Appendix G checklist in use prior to the release of the updated Guidelines which became effective on December 28, 2018. The updated Guidelines include two new topic areas, Energy and Wildfires. Notwithstanding the use of the former Appendix G checklist, it should be noted that this Draft EIR does address energy use, refer to Section 3.4, Energy. On the topic area of Wildfires, the proposed Project would have no impact as the Project site is not located in or near a state responsibility area or land classified as very high fire severity zone (CAL FIRE 2019).

The following environmental resources are assessed in this chapter in accordance with Appendix G of the CEQA Guidelines:

- Aesthetics
- Air Quality
- Cultural Resources
- Energy
- Hazards and Hazardous Materials
- Noise
- Transportation and Traffic

3.0.1 Approach to Environmental Analysis

Sections 3.1 through 3.7 of this EIR contain discussions of the environmental setting, regulatory framework, and potential impacts related to construction and operation of the proposed Project. The environmental evaluation includes a Project analysis and a cumulative analysis. The Project analysis includes a level of impact before the implementation of mitigation measures, if required. The analyses also include a level of impact after the implementation of mitigation measures.

3.0.2 Organization of Environmental Issue Area

The analysis of each environmental issue includes the following components:

Introduction

Provides an introduction to the environmental issue analysis and notes other related issues, if applicable.

Environmental Setting

This section identifies and describes the existing physical environmental conditions of Project site associated with each of the impact sections. According to Section 15125(a) of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the proposed Project to provide the “baseline condition” against which Project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for the proposed Project was published in February 2018, which is considered the baseline for the analysis contained in this EIR.

Regulatory Framework

The Regulatory Framework provides an understanding of the regulatory environment that exists prior to the implementation of the proposed Project. The regulatory framework used in this EIR includes applicable federal, state, regional, and local regulations and policies.

Impacts, Standard Conditions, and Mitigation Measures

This section describes the significance thresholds and methodology used for the analysis. The environmental changes to the existing physical conditions that may occur if the proposed Project is implemented are discussed, and an evaluation of these changes with respect to the significance criteria is provided. This section also includes a Project impact analysis and a cumulative impact analysis. The level of impact prior to the implementation of mitigation is identified. This section also provides a description and discussion of LAUSD Standard Conditions (SCs) incorporated into the proposed Project to reduce significant impacts when required. Mitigation measures are identified for potential significant Project and cumulative impacts, if determined feasible. The mitigation measures are those measures that could avoid, minimize, or reduce an environmental impact. This section also includes a discussion of the level of significance after mitigation that describes the level of impact significance remaining after mitigation measures are implemented.

References

Sources relied upon for each environmental topic analyzed in this document are provided at the end of each section.

3.0.3 Thresholds of Significance/Significance Criteria

CEQA Guidelines Section 15382 defines a significant effect on the environment as:

a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The “Significance Criteria” subsections provide thresholds of significance by which impacts are judged to be significant in this EIR. These include identifiable quantitative or qualitative standards or sets of criteria pursuant to which the significance of a given environmental effect may be determined. Exceedance of a threshold of significance normally means the effect will be determined to be significant (CEQA Guidelines Section 15064.7(a)). However, an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting (CEQA Guidelines Section 15064(b)). Therefore, a Lead Agency has the discretion to determine whether to classify an impact described in an EIR as “significant,” depending on the nature of the area affected. The thresholds of significance used to assess the significant of impacts are based on those provided in Appendix G of the CEQA Guidelines.

3.0.4 Terminology Used in This Environmental Analysis

When evaluating the impacts of the proposed Project and Project alternatives, the level of significance is determined by applying the threshold of significance (significance criteria) presented for each resource evaluation area. The following terms are used to describe each type of impact:

No Impact: No adverse impact on the environment would occur, and mitigation is not required.

Less Than Significant Impact: The impact does not reach or exceed the defined threshold of significance.

Less than Significant Impact with Mitigation: The impact reaches or exceeds the defined threshold of significance and mitigation is therefore required. Feasible mitigation measures, when implemented, will reduce the significant impact to a less than significant level.

Significant Unavoidable Impact: The impact reaches or exceeds the defined threshold of significance. However, application of feasible mitigation measures would not reduce the impact to a less than significant level.

Mitigation: Mitigation refers to feasible measures that would be implemented to avoid or lessen potentially significant impacts. Mitigation includes:

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

The mitigation measures would be proposed as a condition of Project approval and would be monitored to ensure compliance and implementation.

Residual Impacts: This is the level of impact after the implementation of mitigation measures.

3.0.5 Cumulative Projects

Cumulative impacts refer to the combined effect of Project impacts with the impacts of other past, present, and reasonably foreseeable probable future projects. Both CEQA and the CEQA Guidelines require that cumulative impacts be analyzed in an EIR. As set forth in the CEQA Guidelines Section 15130(b), *“the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone.”*

According to Section 15355 of the CEQA Guidelines:

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable, or which compound, or increase, other environmental impacts.

- a) The individual effects may be changes resulting from a single project, or a number of separate projects.*
- b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

Therefore, the cumulative discussion in this EIR focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, and reasonably foreseeable future projects.

CEQA Guidelines Section 15130(b)(1) states that the information utilized in an analysis of cumulative impacts should come from one of the following:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the lead agency.
- A summary of projections contained in an adopted local, regional or statewide plan or related planning document that describes or evaluates conditions contributing to the cumulative effect.

The cumulative analysis discussed in this Draft EIR is provided within each technical section in Chapter 3. Generally, a summary of projections contained in the Wilshire Community Plan was utilized to understand potential cumulative growth and development within the LAUSD service area. The growth forecast provided by the Southern California Association of Governments was used to understand the population, housing and employment growth that would occur within the cities located within the LAUSD service area. These projections are provided in Chapter 4, *Other CEQA Considerations*, in this DEIR.

Additionally, the City of Los Angeles (City) was contacted for a comprehensive list of current and pending projects for the Wilshire Community Plan Area (Appendix B). There are several mixed-use developments, residential developments, retail developments, and the LACMA renovation project within approximately 2 miles of the Project site. Specifically, the City of Los Angeles Department of City Planning confirmed an application for development at Harvard Boulevard and 6th Street. In addition, Metro is continuing its work on construction of the Metro Purple Line.

Table 3-1, below, provides a list of the LAUSD Comprehensive Modernization projects that are also considered in this cumulative environmental analysis.

**TABLE 3-1
LAUSD COMPREHENSIVE MODERNIZATION PROJECT LIST**

No.	Project Name/Location	Description
1	92nd Street Elementary School 9211 Grape St. Los Angeles 90002	Comprehensive Modernization Project
2	Elizabeth Learning Center 4811 Elizabeth St. Cudahy 90201	Comprehensive Modernization Project
3	McKinley Elementary School 7812 McKinley Ave. Los Angeles 90001	Comprehensive Modernization Project
4	HP High School 6020 Miles Ave. Huntington Park 90255	Comprehensive Modernization Project
5	Ascot Elementary School 1447 E. 45th St. Los Angeles 90011	Comprehensive Modernization Project
6	Jefferson High School 1319 E. 41st St. Los Angeles 90011	Comprehensive Modernization Project
7	Roosevelt High School 456 Matthews St. Los Angeles 90033	Comprehensive Modernization Project
8	Belvedere Middle School 312 N. Record Ave. Los Angeles 90063	Comprehensive Modernization Project
9	Lincoln High School 3501 N. Broadway Los Angeles 90031	Comprehensive Modernization Project
10	Venice High School 13000 Venice Blvd. Los Angeles 90066	Comprehensive Modernization Project
11	Hamilton High School 2955 S. Robertson Blvd. Los Angeles 90034	Comprehensive Modernization Project
12	Shenandoah Elementary School 2450 Shenandoah St. Los Angeles 90034	Comprehensive Modernization Project
13	Burroughs Middle School 600 S. McCadden Pl. Los Angeles 90005	Comprehensive Modernization Project
14	North Hollywood High School 5231 Colfax Ave. North Hollywood 91601	Comprehensive Modernization Project

No.	Project Name/Location	Description
15	Grant High School 13000 Oxnard St. Valley Glen 91401	Comprehensive Modernization Project
16	Polytechnic High School 12431 Roscoe Blvd. Sun Valley 91352	Comprehensive Modernization Project
17	Taft High School 5461 Winnetka Ave. Woodland Hills 91364	Comprehensive Modernization Project
18	Sherman Oaks Center for Enriched Studies 18605 Erwin St. Tarzana 91335	Comprehensive Modernization Project
19	Reseda High School 18230 Kittridge St. Reseda 91335	Comprehensive Modernization Project
20	Cleveland High School 8140 Vanalden Ave. Reseda 91335	Comprehensive Modernization Project
21	Kennedy High School 11254 Gothic Ave. Granada Hills 91344	Comprehensive Modernization Project

3.0.6 References

California Department of Forestry and Fire Protection (CAL FIRE), 2019. Fire Hazard Severity Zone Online Viewer. <http://egis.fire.ca.gov/FHSZ/>. Accessed March 2019.

3.1 Aesthetics

This section evaluates potential impacts to aesthetics that could occur with implementation of the proposed Project. This section describes the visual context of the Project site and vicinity and the overall visual character of the area, and also evaluates potential shade and shadow impacts.

Aesthetics may be defined as visual qualities within a given field of view, and may include such considerations as size, shape, color, contextual and general composition and the relationships between these elements. This analysis relies on information contained in the City of Los Angeles General Plan, site photographs, and various illustrations of the proposed Project, including the Project site plan, and proposed building elevations. Key terms that are used to describe these views include:

- **Visual character** is the aggregate of the visible attributes of a scene or object, including natural (topography, water bodies, vegetation) and built (building height and form, types of infrastructure) features. In urban settings, the visual character is influenced primarily by the land use type and density, urban landscaping and design, topography, and background setting.
- **Visual quality** refers to how well the overall visual character of an area or a field of view meets viewer preferences for the natural and built environments. Views with high visual quality typically consist of unique or prominent natural or man-made attributes or several small features that, when viewed together, create a whole that is visually interesting or appealing. The focus of the visual quality analysis is on the loss of features with high visual quality or the introduction of contrasting features that could substantially degrade the visual character of the project area.

Shading from buildings and structures has the potential to block sunlight. Although shading is common and expected in urban areas, and is considered a beneficial feature when it provides cover from excess sunlight and heat, it can have an adverse impact if it interferes with sun-related activities at sensitive uses. The LAUSD OEHS Protocol for Shadow Analysis in CEQA Documents¹ provides shade thresholds and cites such uses as routinely usable outdoor spaces associated with residential, recreational and institutional uses (e.g., schools, convalescent homes), commercial pedestrian-oriented outdoor spaces and outdoor eating areas, nurseries, and solar collectors.

3.1.1 Environmental Setting

Project Site Setting

The 10.9-acre proposed Project site is located at 600 South McCadden Place, within the Wilshire Community Plan Area and Hancock Park neighborhood of the City of Los Angeles. The Project site is approximately five miles northwest of downtown Los Angeles. It is bounded by West 6th Street to the north, Wilshire Boulevard to the south, single-family residences that front South June Street to the east, and South McCadden Place to the west. The character of the surrounding neighborhood is primarily residential. One- and two-story single-family residences in a variety of architectural styles with front yards and formal landscaping face South McCadden Place and West 6th Street, and larger residences (some recently constructed) on larger lots face South June Street on the east side of the Project site. A contemporary apartment block is located immediately south of the Project site at the

¹ This protocol has, in part, been developed using the Los Angeles CEQA Thresholds Guide, 2006.

southwest corner of Wilshire Boulevard and South Tremaine Avenue. Additionally, several commercial businesses are located along Wilshire Boulevard. There are no scenic vistas, scenic resources, or historic resources in the immediate vicinity of the proposed Project.

The Burroughs MS campus is made up of 25 buildings and structures, arcades, outdoor athletic spaces, and landscape features.² Fourteen of the buildings are portable buildings that were installed over 30 years ago. The buildings and structures are all located on the north end of the campus; athletic fields, sports facilities, and paved parking lot are located on the south end of the campus. Burroughs MS was originally designed in the Italian Renaissance Revival style. Typical character-defining features include rectangular massing; brick, stucco, and concrete with trim of terra cotta or cast stone and bases of granite or masonry; horizontal emphasis with differentiated treatment of stories; symmetry and regularity; brick, stucco, or concrete exterior often scored to resemble masonry; gabled and/or hipped roof often capped with clay tiles; linear fenestration pattern; belt courses and cornices; classical detailing; and cast stone or terra cotta architectural ornament. The most visually prominent school buildings are those which face the public rights-of-way on South McCadden Place and West 6th Street: the administrative/auditorium building (Building 1), the classroom building (Building 7), and the cafeteria-classroom building (Building 20). The Shop Building (Building 9) is visible from adjacent residences along June Street. Buildings 1, 7, and 9 are contributors to the Burroughs MS Historic District and would be rehabilitated under the proposed Project, and Building 20 (a non-contributor) would be demolished. Other school buildings are obscured behind fencing or mature landscaping, are set back from the street, or are lower in height than these three buildings.

Shade and Shadow

The existing buildings on the Project site cast shadows onto the adjacent streets (McCadden Place and 6th Street) and the backyards of the residences to the east of the Campus. Shadow-sensitive land uses in the Project vicinity include the residences to the east.

3.1.2 Regulatory Setting

Local

City of Los Angeles General Plan

California state law requires that every city and county prepare and adopt a long-range comprehensive General Plan to guide future development and to identify the community's environmental, social, and economic goals. The General Plan must: (1) identify the need and methods for coordinating community development activities among all units of government; (2) establish the community's capacity to respond to problems and opportunities; and (3) provide a basis for subsequent planning efforts. The City of Los Angeles General Plan sets forth goals, objectives, policies, and programs to provide a guideline for day-to-day land use policies and to meet the existing and future needs and desires of the community, while integrating a range of State-mandated elements including Air Quality, Land Use, Transportation, Noise, Safety, Housing, Open Space, and Conservation. Elements of the General Plan that are pertinent to aesthetics include the *Citywide General Plan Framework Element*

² Ehrlich Yanai Rhee Chaney Architects, *John Burroughs Middle School: Comprehensive Campus Modernization – 50%CD Basis of Design Report*, July 2, 2018.

(General Plan Framework) and the *Wilshire Community Plan* (Community Plan), which are discussed below.

Citywide General Plan Framework Element

The General Plan Framework, adopted in December 1996 and readopted in August 2001, establishes the conceptual basis for the City's General Plan. The General Plan Framework provides direction regarding the City's vision for growth and includes an Urban Form and Neighborhood Design chapter to guide the design of future development. Although the General Plan Framework does not directly address the design of individual neighborhoods or communities, it embodies broad neighborhood design policies and implementation programs to guide local planning efforts. The General Plan Framework also states that the livability of all neighborhoods would be improved by upgrading the quality of development and improving the quality of the public realm (Objective 5.5).³

Chapter 5 of the General Plan Framework, Urban Form and Neighborhood Design, establishes a goal of creating a livable city for existing and future residents with interconnected, diverse neighborhoods. "Urban form" refers to the general pattern of building heights and development intensity and the structural elements that define the City physically, such as natural features, transportation corridors, activity centers, and focal elements. "Neighborhood design" refers to the physical character of neighborhoods and communities within the City.

Wilshire Community Plan

The Project site is located within the Wilshire Community Plan Area of the City of Los Angeles. The Community Plan is one of the 35 community and district plans established throughout the City, which collectively comprise the Land Use Element of the City's General Plan and are intended to implement the policies of the General Plan Framework. Community Plans include, among other provisions, guidelines regarding the appearance of development and the arrangement of land use.

Los Angeles Municipal Code

The LAMC, Chapter 1 (Planning and Zoning Code) defines the range of zoning classifications throughout the City, provides the specific permitted uses applicable to each zoning designation, and applies development regulations to each zoning designation.

As discussed in Chapter 2, Project Description, the Project site is zoned [Q]PF-1XL-HPOZ. PF (Public Facilities), designation for the use and development of publicly owned land, including public elementary and secondary schools. [Q] means additional restrictions on building design, landscape buffer, signs, etc; '1' is Height District No.1; and 'XL' is Extra Limited Height District where no building or structure shall exceed two stories, nor shall the highest point of the roof of any building or structure exceed 30 feet in height. A Historic Preservation Overlay Zone (HPOZ) provides for review of proposed exterior alterations and additions to historic properties within designated districts. LAMC regulations applicable to aesthetics address building setbacks and height limits; building, wayfinding, and decorative lighting; and signage, including but not limited to signage illumination.

³ City of Los Angeles Department of City Planning, The Framework Element of the Los Angeles General Plan, July 27, 1995. <https://planning.lacity.org/FrameWork.html>. Accessed February 21, 2018.

Standard Conditions

Projects implemented under the Program EIR are anticipated to have less-than-significant impacts related to aesthetic resources within the LAUSD service area with the incorporation of Standard Conditions (SCs). Applicable SCs related to Project-specific impacts to aesthetic resources are provided in **Table 3.1-1**.

**TABLE 3.1-1
 AESTHETIC RESOURCES STANDARD CONDITIONS OF APPROVAL**

Applicable SCs	Description
SC-AE-1	<p>LAUSD shall review all designs to ensure that demolition of existing buildings or construction of new buildings on its historic campuses are designed to ensure compatibility with the existing campus. The School Design Guide shall be used as a reference to guide the design.</p> <p>School Design Guide</p> <p>This document outlines measures for re-use rather than destruction of historical resources. It requires the consideration of architectural appearance/consistency and other aesthetic factors during the preliminary design review for a proposed school upgrade project. Architectural quality must consider compatibility with the surrounding community.</p>
SC-AE-2	<p>LAUSD shall review all designs to ensure that methods from the current School Design Guide are incorporated throughout the planning, design, construction, and operation of the Project in order to limit aesthetic impacts.</p> <p>School Design Guide</p> <p>This document outlines measures to reduce aesthetic impacts around schools, such as shrubs and ground treatments that deter taggers, vandal-resistant and graffiti-resistant materials, painting, etc.</p>
SC-AE-3	<p>LAUSD shall assess the proposed project's consistency with the general character of the surrounding neighborhood, including, but not limited to, any proposed changes to the density, height, bulk, and setback of new buildings (including stadiums), additions, or renovations. Where feasible, LAUSD shall make appropriate design changes to reduce or eliminate viewshed obstruction and degradation of neighborhood character. Such design changes may include, but are not limited to, changes to the campus layout, height of buildings, landscaping, and/or the architectural style of buildings.</p>
SC-AE-5	<p>LAUSD shall review all designs and test new lights following installation to ensure that adverse light trespass and glare impacts are avoided.</p> <p>School Design Guide</p> <p>This document outlines Illumination Criteria, requirements for outdoor lighting and measures to minimize and eliminate glare that may impact pedestrians, drivers and sports teams, and to avoid light trespass onto adjacent properties.</p>
SC-AE-6	<p>The International Dark-Sky Association (IDA) and the Illuminating Engineering Society (IES) Model Lighting Ordinance (MLO) shall be used as a guide for environmentally responsible outdoor lighting. The MLO has outdoor lighting standards that reduce glare, light trespass, and skyglow. The MLO uses lighting zones (LZ) 0 to 4, which allow the District to vary the lighting restrictions according to the sensitivity of the community. The MLO also incorporates the Backlight-Uplight Glare (BUG) rating system for luminaires, which provides more effective control of unwanted light. The MLO establishes standards to:</p> <ul style="list-style-type: none"> • Limit the amount of light that can be used. • Minimize glare by controlling the amount of light that tends to create glare. • Minimize sky glow by controlling the amount of uplight. • Minimize the amount of off-site impacts or light trespass.

Applicable SCs	Description
SC-CUL-1	<p>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"> <li>• 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. <li>• 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. <li>• 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. <li>• 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. <li>• 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. <li>• 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. <li>• 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. <li>• The Design Team and Historic Architect shall be responsible for incorporating LAUSD's recommended updates and revisions during the design development and review process.
SC-CUL-2	<p>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>

Applicable SCs	Description
	<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.• 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.

3.1.3 Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, the proposed project could have a potentially significant impact with respect to aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista (see Section 4.1 in Chapter 4.0, Other CEQA Considerations);
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway (see Section 4.1 in Chapter 4.0, Other CEQA Considerations);
- c) Substantially degrade the existing visual character or quality of the site and its surroundings (see Impact 3.1-1, below); or
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (see Impact 3.1-2, below).

3.1.4 Methodology

Aesthetics generally refers to the identification of visual resources and the quality of what can be seen, as well as an overall visual perception of the environment. The significance determination for the aesthetics analysis is based on consideration of the following: (1) the degree of visual contrast and compatibility in scale and character between project elements and the existing surroundings; (2) the extent of change related to project visibility from key public vantage points; and (3) project conformance with public policies regarding visual and urban design quality.

Shading impacts are influenced by the height and bulk of a structure, the time of year, the duration of shading during the day, and the proximity of shade-sensitive land uses, or receptors. Shading also affects the visual character and quality of a project relative to surrounding land uses. The consequences of shadows on land uses can be positive, including cooling effects during warm weather; or negative, such as loss of warmth during cooler weather and loss of natural light for landscaping and human activity. In order to determine whether shading impacts would have a significant impact on the physical

environment, a shade and shadow study⁴ was prepared for the Project that shows the adjacent offsite, shade-sensitive uses that would receive shadows, and the nature of shading that would occur.

3.1.5 Impact Analysis

Visual Character

Impact 3.1-1) The Project would not substantially degrade the existing visual character or quality of the site and its surroundings.

Construction

As described in Chapter 2.0, *Project Description*, construction of the proposed Project is proposed in four phases, and construction activities are anticipated to be initiated in mid-2021 and to be completed in late-2025. Construction-related activities include the following: site preparation, demolition of existing buildings, grading, paving, and construction of buildings and infrastructure. Motorists traveling along adjacent streets and residents in adjacent residences to the east would have views of construction activities. Project construction activities would alter the character of the Project site and its surroundings. Graded surfaces, construction materials, construction equipment, and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged on the Project site. Construction-related visual impacts would cease once construction is completed. Therefore, because of the temporary nature of construction-related activities and partially screened views of the Project site, potential impacts to visual character would be less than significant.

Operation

The entire campus meets the definition of a historical resource under CEQA. In a 2015 Character-Defining Features Memorandum (CDFM) for Burroughs MS, buildings, structures, and landscape features on the campus were evaluated and classified as either contributing and non-contributing features.⁵ The CDFM and the Historic Resources Technical Report (HRTR) are presented in Appendix E2 of this Draft EIR. The period of significance for Burroughs MS was identified as the period between 1923 and 1935, the period when the school was designed in the Italian Renaissance Revival style to the reconstruction of the main, auditorium, and shop buildings following the Long Beach earthquake of 1933. The school was subsequently recommended eligible as the Burroughs MS Historic District. The following contributing buildings, structures, and landscape features were identified in the CDFM: Administrative/Auditorium Building (Building 1), Boys' Gymnasium Building (Building 2), Classroom Building (Building 7), Shop Building (Building 9), the spatial relationship and siting of Buildings 1 and 7, and the landscape between Buildings 1 and 7 and South McCadden Place and West 6th Street.

Burroughs MS was originally designed in the Italian Renaissance Revival style. Typical character-defining features (CDFs) include rectangular massing; brick, stucco, and concrete with trim of terra cotta or cast stone and bases of granite or masonry; horizontal emphasis with differentiated treatment

⁴ Ehrlich Yanai Rhee Chaney Architects, Shadow Study, October 2017.

⁵ LAUSD (PCR Services), Character-Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, Prepared for Los Angeles Unified School District (LAUSD), July 28, 2015.

of stories; symmetry and regularity; brick, stucco, or concrete exterior often scored to resemble masonry; gabled and/or hipped roof often capped with clay tiles; linear fenestration pattern; belt courses and cornices; classical detailing; and cast stone or terra cotta architectural ornament. Additional interior CDFs of the Administrative/Auditorium Building (Building 1) include the circulation plan and fenestration, details, and finishes in both wings of the building. The exposed metal truss roof is an interior CDF of the Boy's Gymnasium (Building 2), and the circulation plan and arched corridor ceilings are interior CDFs of the Classroom Building (Building 7).

The proposed Project would incorporate measures from the LAUSD School Design Guide to protect the character and quality of the site and its surroundings. For example, the Project design team included a qualified historic architect who provided input on the design throughout the planning process. The Project objectives and designs have been extensively reviewed by the design team to provide a design that was sensitive to the historic nature of the campus and that met the current and future academic, programmatic, and operational needs of the students and campus. The new buildings have been designed to be compatible with Burroughs MS in terms of scale, materials, and landscaping.

The Project would also implement SCs that are designed to retain the visual character and quality of the site. Implementation of SC-AE-1 requires consideration of architectural appearance/consistency and other aesthetic factors during the preliminary design review. SC-AE-1 requires that architectural quality consider compatibility with the surrounding community. Under SC-AE-1, reuse rather than destruction of historic resources is the preferred method, with the multiple goals of: 1) retaining and preserving the historic character of a building, structure, or site; treating distinctive architectural features or examples of skilled craftsmanship with sensitivity; concealing reinforcement required for structural stability or life, safety, or mechanical systems; and conducting surface cleaning of historic structures by the gentlest means possible. SC-AE-2 includes design measures and use of materials to reduce aesthetic impacts to deter vandalism. SC-AE-3 requires appropriate design changes to reduce or eliminate significant adverse aesthetic impacts resulting from a proposed school project's building or site design. These design changes could include, but are not necessarily limited to, changes to the campus layout, height of buildings, and/or architectural style of buildings. SC-AE-5 and -6 requires reduction of lighting intensity from new sources on adjacent residences and measures to minimize the impact of lighting styles and technologies to sky glow, respectively. LAUSD SC-CUL-1 and SC-CUL-2 would ensure the proposed modernization of contributors and the design of new buildings would conform to the Secretary of the Interior's Standards for Rehabilitation, specifically Standards 9 and 10 for new construction (as discussed in the Historic Resources Technical Report for the Project Appendix E2), and LAUSD requirements and guidelines for the treatment of historical resources under the guidance of a qualified historic architect.

Public Views

The new three-story Building B would be divided into two wings connected by an outdoor breezeway/bridge. The new Building B would occupy the space of the current Cafeteria-Classroom Building (Building 20) along South McCadden Place and would be situated north of the new Lunch Shelter and playing fields. The Cafeteria-Classroom Building (Building 20) was designed in 1976 and is not considered a contributing building. The view of the existing Cafeteria-Classroom Building from the public right-of-way consists of a red-brick planter and red-brick building with windows. The exterior skin of new Building B would include brick masonry at the ground floor level as a "base

course” to create a horizontal emphasis that is reinforced by the belt courses also used in the contributing buildings on the Campus. The patterning of the brick would allude to traditional brick assembly techniques, but would be composed to create visual changes at various scales through glazed unit accents which would be animated by the changing colors and reflections cast throughout the day. The upper stories of Building B would be distinct and complimentary to the brick base. The upper stories would be clad with glazed ceramic tile or a high-pressure laminate sheet panel cladding in a light stone-like color to compliment the heavy masonry. The ceramic tile would have a variegated glaze finish which would reflect light differently throughout the day. The exterior window design and fenestration⁶ patterning for Building B would have similar overall proportions, regularized spacing along the length of the façade and vertically stacked between floors. The view from the right-of-way would show proportional massing, design, and material finish that would resonate with the existing historical brick masonry buildings. **Figure 3.1-1** illustrates the view of Building B from South McCadden Place.

Most of the CDFs of the Administration Building (Building 1), Classroom Building (Building 7), and the Shop Building (Building 9) would be retained. No exterior materials or features would be removed or altered. No exterior additions are proposed; therefore, the building would retain its spatial relationships with the other historic buildings on campus that contribute to the historic district. As a result, the modernization of Administrative/Auditorium Building (Building 1), Classroom Building (Building 7), and the Shop Building (Building 9) would not significantly alter the historic character through removal or alterations of features, spaces, and special relationships that characterize the property.

The landscaped area between Building 1 and Building 7 and the street would remain with one addition. An ADA access ramp would be added to the main entrance that front South McCadden Place that would remove a small portion of the lawn, which is a contributing element to the historic district. This would be a minor visual intrusion and would not alter the spaces or spatial relationships that characterize the resource. Landscape improvements may include repair or replacement of irrigation systems including lawn sprinklers and sprinkler controls, trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls. There are no significant changes proposed to contributing landscape elements.

The Project would occupy a similar visual field as the current conditions and would not significantly impact existing street views. The Project would incorporate recommendations from the LAUSD School Design Guide to protect unique or historic features. Implementation of SC-CUL-1, SC-CUL-2, SC-AE-1, SC-AE-2, and SC-AE-3 would ensure that impacts to visual character or quality would be less than significant. No mitigation or further study is required.

⁶ Fenestration refers to the arrangement of windows and doors on the elevations of a building.



D211085.33 - LAUSD Burroughs MS EIR/05 Graphics-GIS-Modeling 03 EIR Figures/Illustrator

SOURCE: John Burroughs MS, 2018

Burroughs Middle School Comprehensive Modernization Project

Figure 3.1-1
View of Building B From McCadden Place – Looking North

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant

Shade and Shadow

Impact 3.1-2 The Project would not result in sensitive land uses being shaded by Project-related structures for more than three hours.

Based on the LAUSD OEHS Protocol for Shadow Analysis, a Project impact would normally be considered significant if shadow-sensitive uses would be shaded by Project-related structures for more than three hours between 9:00 a.m. and 3:00 p.m. during October – April, or for more than three hours between 9:00 a.m. and 5:00 p.m. during April-October. Currently, during the winter solstice, shadows reach the residential uses to the east at 4:00 p.m. but the shadows would not last for more than three hours between 9:00 a.m. and 3:00 p.m. The development of new Building A would not contribute to new shading offsite since it would be marginally taller than the existing Shop Building to the east. Furthermore, the development of new Building B would also not contribute to new shading of offsite shadow-sensitive uses for more than three hours between 9:00 a.m. and 3:00 p.m. during October – April, or for more than three hours between 9:00 a.m. and 5:00 p.m. during April-October, as depicted in Appendix C of this Draft EIR. No other shading to sensitive receptors would occur during the winter solstice.

Therefore, the proposed buildings on the Campus would not increase or alter the shading of nearby shadow-sensitive uses based on the significance thresholds. Impacts related to shade and shadows would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant

3.1.6 Cumulative Impacts

Visual Character

Construction activities associated with development of the proposed Project and nearby cumulative projects would temporarily alter the visual character and quality of the area. Temporary visual impacts would be associated with construction of these cumulative projects which could include exposed building pads, staging areas, onsite storage, use of large equipment, temporary storage areas, and stockpiles. Because these effects would be temporary, they would not significantly degrade the visual character or quality of the area. Therefore, impacts of the proposed Project would not combine with those of cumulative projects to result in a significant impact associated with visual character and quality during construction activities.

The various components of the proposed project would create a safe, accessible, and modern learning environment for students. Due to the comprehensive nature of the proposed work, it is anticipated that future development within the Project area would result in relatively minor changes to the Campus. Cumulative projects would be designed to be consistent with the General Plan/Community Plans, and undergo appropriate design review. Therefore, the cumulative projects would not result in significant cumulative changes related to the visual character and quality of the Project area.

The proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools and in a manner consistent with the Secretary of the Interior's Standards for Rehabilitation. Therefore, the proposed Project would be complimentary to the surrounding Project area and would not result in a substantial adverse change in the existing visual character and quality of the Project area. The proposed Project, in conjunction with other cumulative development, would result in less than significant cumulative impacts.

Shade and Shadow

The Project area is developed with where varied shading conditions occur throughout the day. With regard to shading at a particular shade sensitive resource, shading is a localized phenomenon and cumulative shading impacts would only occur when development projects are in the immediate vicinity of one another. Due to the locations of other cumulative projects, which are a considerable distance from the Project site, there would not be overlapping shadow effects on sensitive receptors in association with the Project. Thus, the Project would not contribute to cumulative shadow effects and cumulative impacts would be less than significant.

3.1.7 References

City of Los Angeles Department of City Planning, The Framework Element of the Los Angeles General Plan, July 27, 1995. <https://planning.lacity.org/FrameWork.html>. Accessed February 21, 2018.

City of Los Angeles, Murals website, <http://culturela.org/murals/>. Accessed February 17, 2017.

Ehrlich Yanai Rhee Chaney Architects, *John Burroughs Middle School: Comprehensive Campus Modernization – 50%CD Basis of Design Report*, July 2, 2018.

IESNA Handbook, 10th Edition.

Los Angeles Municipal Code Section 14.4.1, cityplanning.lacity.org/Code_Studies/Misc/Mural_Ordinance_DiscussionDraft_LADCP.pdf. Accessed February 21, 2017.

LAUSD (PCR Services), Character-Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, Prepared for Los Angeles Unified School District (LAUSD), July 28, 2015.

3.2 Air Quality

This section evaluates potential impacts related to air emissions generated by construction and operation of the proposed Project. The analysis also addresses consistency of the Project with air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP) and the LAUSD. The analysis of project-generated air emissions focuses on whether the Project would cause exceedance of an ambient air quality standard, or a SCAQMD significance threshold. Details regarding the air quality analysis are provided in the Air Quality Technical Report in Appendix D of this Draft EIR.

3.2.1 Environmental Setting

Regional Air Quality

The Project site is located within the South Coast Air Basin (Air Basin). The distinctive climate of the Air Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high-pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Air Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Air Basin vary with location, season and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Air Basin and adjacent desert.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (US EPA) and are subject to emissions control requirements adopted by federal, state and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O₃): O₃ is a secondary pollutant formed by the chemical reaction of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x) under favorable meteorological conditions such as high temperature and stagnation episodes. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O₃ irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects

are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Volatile Organic Compounds (VOCs). VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not “criteria” pollutants; however, they contribute with NO_x to the formation of O₃ and are regulated as O₃ precursor emissions.

Nitrogen Dioxide (NO₂) and Nitrogen Oxides (NO_x): NO_x is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO₂ and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO₂. Ambient air quality standards have been promulgated for NO₂, which is a reddish-brown, reactive gas. The principle form of NO_x produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO₂, creating the mixture of NO and NO₂ referred to as NO_x. Major sources of NO_x emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_x are a precursor to the formation of ground-level ozone. NO₂ can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the California Air Resources Board (CARB), “NO₂ is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO₂ along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.” (CARB, 2017e) NO₂ also contributes to the formation of particulate matter. The terms “NO_x” and “NO₂” are sometimes used interchangeably. However, the term “NO_x” is primarily used when discussing emissions, usually from combustion-related activities. The term “NO₂” is primarily used when discussing ambient air quality standards. More specifically, NO₂ is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_x and NO are not. In cases where the thresholds of significance, or impact analyses are discussed in the context of NO_x emissions, it is based on the conservative assumption that all NO_x emissions would oxidize in the atmosphere to form NO₂.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Sulfur Dioxide (SO₂): Major sources of SO₂ include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath,

and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM10 and PM2.5): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than ten microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung, or heart, disease are most sensitive to PM10 and PM2.5. In children, studies have shown associations between particulate matter exposure and reduced lung function and increased respiratory symptoms and illnesses (CARB, 2017f). Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Local Air Quality

Existing Ambient Air Quality in the Project Area

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring area most representative of the Project site is the Central Los Angeles County Monitoring Area (Area 1). Criteria pollutants monitored at this station include O₃, NO₂, CO, SO₂, PM10, PM2.5, and Pb. The most recent data available from the SCAQMD for these monitoring stations are from years 2013 to 2018 (SCAQMD, 2019). The pollutant concentration data for these years are summarized in **Table 3.2-1 Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Station**.

Sensitive Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. The nearest sensitive receptors are the existing students at Burroughs Middle School, Third Street Elementary School and Yavneh Hebrew Academy (both located approximately 1,500 feet north of the Project site), and residential uses surrounding the Project site (located as near as 25 feet from construction activity).

All other air quality sensitive receptors are located at greater distances from the Project site, and would be less impacted by Project emissions.

**TABLE 3.2-1
POLLUTANT STANDARDS AND AMBIENT AIR QUALITY DATA FROM REPRESENTATIVE MONITORING STATION**

Pollutant/Standard^a	2013	2014	2015	2016	2017
O₃ (1-hour)					
Maximum Concentration (ppm)	0.081	0.113	0.104	0.103	0.116
Days > CAAQS (0.09 ppm)	0	3	2	2	6
O₃ (8-hour)					
Maximum Concentration (ppm)	0.069	0.094	0.074	0.078	0.086
4 th High 8-hour Concentration (ppm)	0.060	0.072	0.072	0.071	0.080
Days > CAAQS (0.070 ppm)	0	7	6	4	14
Days > NAAQS (0.070 ppm)	0	6	6	4	14
NO₂ (1-hour)					
Maximum Concentration (ppm)	0.0903	0.0821	0.0791	0.0647	0.0806
98 th Percentile Concentration (ppm)	0.0626	0.0674	0.0624	0.0610	0.0617
NO₂ (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.0218	0.0222	0.0222	0.0208	0.0205
CO (1-hour)					
Maximum Concentration (ppm)	--	3	3.2	1.9	1.9
CO (8-hour)					
Maximum Concentration (ppm)	2.0	2.0	1.8	1.4	1.6
SO₂ (1-hour)					
Maximum Concentration (ppm)	0.0063	0.0054	0.0126	0.0134	5.7
99 th Percentile Concentration (ppm)	0.0052	0.0044	0.0063	0.0025	2.6
PM₁₀ (24-hour)^b					
Maximum Concentration (µg/m ³)	57	87	88	67	96
Est. Days > CAAQS (50 µg/m ³)	1	32	26	18	41
Est. Days > NAAQS (150 µg/m ³)	0	0	0	0	0
PM₁₀ (Annual Average)					
Annual Arithmetic Mean (20 µg/m ³)	29.5	35.4	33.0	32.4	34.4
PM_{2.5} (24-hour)					
Maximum Concentration (µg/m ³)	43.1	59.9	56.4	44.39	49.20
98 th Percentile Concentration (µg/m ³)	29.0	34.5	38.0	27.3	27.80
Est. Days > NAAQS (35 µg/m ³)	1	6	7	2	5
PM_{2.5} (Annual)					
Annual Arithmetic Mean (12 µg/m ³)	11.95	12.36	12.38	11.83	11.94
Lead					
Maximum 30-day average (µg/m ³)	0.013	0.013	0.013	0.016	0.017

^a ppm = parts per million; µg/m³ = micrograms per cubic meter; "--" = no data

CAAQS = California Ambient Air Quality Standard

NAAQS = National Ambient Air Quality Standard

SOURCES: SCAQMD, 2019.

3.2.2 Regulatory Setting

Federal

Federal Clean Air Act

The federal CAA was the first federal legislation regarding air pollution control. At the federal level, the US EPA is responsible for implementation of certain portions of the CAA including mobile source requirements. Other portions of the CAA, such as stationary source requirements, are implemented by state and local agencies.

Under Title I, Nonattainment Provisions, the CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), for the following criteria pollutants O₃, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and Pb. It also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the CAA identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. **Table 3.2-2** *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

Title II of the CAA, Mobile Source Provisions, pertains to mobile sources such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the US EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_x emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

**TABLE 3.2-2
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
O ₃ ^h	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
NO ₂ ⁱ	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi- luminescence	100 ppb (188 µg/m ³)	None	Gas Phase Chemi- luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
SO ₂ ^j	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ⁹
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ^j	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ^j	—	
PM ₁₀ ^k	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
PM _{2.5} ^k	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³ ^k		
Lead ^{l, m}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ^m		
	Rolling 3-Month Average ^m	--		0.15 µg/m ³		
Visibility Reducing Particles ⁿ	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates (SO ₄)	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

^a California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than O₃, PM₁₀, PM_{2.5}, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

^c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d Any equivalent procedure which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

^e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g

^g Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

^h On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm.

ⁱ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.

^j On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

^k On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³.

^l CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

^m The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

ⁿ In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB, 2016.

State

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards [CAAQS]), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the State to take over implementation of the federal CAA from the US EPA.

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include state-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal Clean Air Act planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state. Table 3.2-2 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the state. As shown in Table 3.2-2, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 3.2-3, South Coast Air Basin Attainment Status (Los Angeles County)** provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the state standards. The Air Basin is designated as attainment for the California standards for sulfates, hydrogen sulfide, and vinyl chloride. As shown in Table 3.2-3, the Air Basin is currently in nonattainment for ozone, PM10, and PM2.5 under the CAAQS.

The Clean Air Act also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a SIP for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain, or meet, interim milestones.

Title II of the Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the US EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_x emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

**TABLE 3.2-3
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)**

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A ^a	Non-attainment
Ozone (8-hour standard)	Non-attainment – Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM10	Attainment	Non-attainment
PM2.5	Non-attainment – Serious	Non-attainment
Lead	Non-attainment (Partial) ^b	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Attainment
Vinyl Chloride	N/A	N/A ^c

N/A = not applicable

^a The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

^b Partial Nonattainment designation – Los Angeles County portion of the Air Basin only for near-source monitors.

^c In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

SOURCE: US EPA, 2017; CARB, 2017a.

Air Quality and Land Use Handbook

The CARB published the Air Quality and Land Use Handbook in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit toxic air contaminant (TAC) emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and other TACs (Title 13 California Code of Regulations [CCR], Section 2485) (CARB, 2017b). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR, Section 2025) (CARB, 2017c). The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and busses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, there are two methods to comply with the requirements. The first way is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over eight years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would meet, or exceed, the 2010 engine emission standards for NO_x and DPM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016 their entire fleet was equipped with diesel particulate filters. However, diesel particulate filters do not typically lower NO_x emissions. Thus, fleet owners choosing the second option must still comply with the 2010 engine emission standards for their trucks and busses by 2020.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower, of older, dirtier engines with newer emission-controlled models (13 CCR, Section 2449) (CARB, 2017d). Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance January 1, 2014. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement, or repowering, of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over, or installing, Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs, or retrofits (VDECS installation), be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

Regional

South Coast Air Quality Management District

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a sub-region of the SCAQMD jurisdiction. While air quality in this area has improved, the Air Basin requires continued diligence to meet air quality standards.

Air Quality Management Plan

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. The SCAQMD and CARB have adopted the 2016 AQMP, which incorporates scientific and technological information and planning assumptions regarding air quality, including the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and emission inventory methodologies for various source categories (SCAQMD, 2017).

The purpose of the 2016 AQMP is to bring the Air Basin into attainment with NAAQS for 24-hour PM_{2.5}. SCAQMD has since determined that this deadline was impractical due to drought conditions in the region (SCAQMD, 2017). In 2016, US EPA approved reclassification of the Air Basin from “moderate” to “serious” non-attainment for the 24-hour PM_{2.5} standard, which has a new attainment deadline of December 31, 2019. The 2016 AQMP demonstrates that the 24-hour standard will be met by 2019 with no additional reductions beyond already adopted and implemented measures. The 2016 AQMP also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 and 2032 8-hour ozone standard deadline with new measures designed to reduce reliance on the CAA Section 182(e)(5) long-term measures for NO_x and VOC reductions. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2016 AQMP consist of 8-hour ozone control measures and PM_{2.5} control measures designed to achieve the ozone and PM_{2.5} NAAQS by statutory deadlines. The AQMP includes ten PM_{2.5} control measures, 15 stationary source 8-hour ozone measures and 15 early action measures for mobile sources. In general, the SCAQMD’s control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities associated with the Project 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. Descriptions of measures MOB-08 and MOB-10 are provided below:

MOB-08 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles: This proposed measure seeks to replace heavy-duty vehicles with newer, or new, vehicles that at a minimum, meet the 2010 on-road heavy-duty NO_x exhaust emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr). Given that exceedances of the 24-hour PM_{2.5} air quality standard occur in the state, priority will be placed on replacing older diesel trucks that operate primarily at the warehouse and distribution centers. Funding assistance of up to

\$50,000 per vehicle is proposed and the level of funding will depend upon the NO_x emissions certification level of the replacement vehicle. In addition, a provision similar to the Surplus Off-Road Option for NO_x (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation will be sought to ensure that additional NO_x emission reduction benefits are achieved.

MOB-10 – Extension of the SOON Provision for Construction/Industrial Equipment:

This measure seeks to continue the (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation beyond 2023 through the 2031 timeframe. To implement the SOON program in this timeframe, funding of at least \$10 million per year would be sought to help fund the repower, or replacement, of older Tier 0 and Tier 1 equipment, with reductions that are considered surplus to the statewide regulation with Tier 4 or cleaner engines.

Regulations and Rules

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction, or operation, of the Project. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shut-down exemptions and breakdown events. The following is a list of rules which may apply to the Project:

Rule 401 – Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period, or periods, aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view.

Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the Project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the US EPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers,

refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants: This rule requires owners and operators of any earth-moving activities of soil with applicable toxic air contaminant(s) of concern (greater than 50 cubic yards) to conduct ambient PM10 monitoring, implement dust control measures, notification, signage, and recordkeeping.

Air Quality Guidance Documents

The SCAQMD published a *CEQA Air Quality Handbook* (the Handbook) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in CEQA documents and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends using CalEEMod or another approved model to calculate emissions from land use projects (SCAQMD, 1993).

In June 2003, the SCAQMD published a document called the *Localized Significance Threshold Methodology* that is intended to provide voluntary guidance for lead agencies in analyzing localized air quality impacts from projects (SCAQMD, 2008). The document was revised in July 2008 to incorporate additional guidance regarding PM2.5 emissions (SCAQMD, 2006). The *Localized Significance Threshold Methodology* was also used in the preparation of this assessment.

The SCAQMD has also adopted land use planning guidance in the May 2005 *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (SCAQMD, 2005) which, like the CARB Handbook, also considers impacts to sensitive receptors from facilities that emit TACs. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., the same siting criteria for distribution centers and dry-cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to manage potential health risk. The guidance consists of voluntary initiatives recommended for consideration by local planning agencies.

Local

City of Los Angeles

Local jurisdictions, such as the City of Los Angeles (City), have the authority and responsibility to reduce air pollution through its land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's

General Plan Air Quality Element includes City-wide goals, objectives, and policies related to air quality resources. A number of these goals, objectives, and policies are relevant to the proposed Project, and are related to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits and monitors and enforces implementation of such mitigation measures.

Los Angeles Unified School District Program EIR

The SUP Program EIR includes Standard Conditions of Approval (SCs) for reducing impacts on air quality in areas where future projects would be implemented under the SUP. Applicable SCs related to Project air quality impacts are provided in **Table 3.2-4** *Air Quality Standard Conditions of Approval*, below.

According to the Program EIR, projects implemented under the SUP are anticipated to have less than significant and potentially significant impacts on air quality within the LAUSD service area. However, the Project-specific analysis provided below concludes that implementation of the Burroughs Middle School Comprehensive Modernization Project would have less-than-significant impacts on the surrounding community.

**TABLE 3.2-4
AIR QUALITY STANDARD CONDITIONS OF APPROVAL**

Applicable SCs	Description
SC-AQ-2	LAUSD's 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.
SC-AQ-3	LAUSD's construction contractor shall: <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.

Applicable SCs	Description
SC-AQ-4	<p>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>Exhaust Emissions</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. • Route construction trucks off congested streets, as permitted by local jurisdiction haul routes. • Employ high pressure fuel injection systems or engine timing retardation. • Utilize 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 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower. • Restrict non-essential diesel engine idle time, to not more than five consecutive minutes. • Utilize electrical power rather than internal combustion engine power generators. • Utilize electric or alternatively fueled equipment, as feasible. • Utilize construction equipment with the minimum practical engine size. • Utilize low-emission on-road construction fleet vehicles. • Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. <p>Fugitive Dust</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 ten 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 five percent 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.

Applicable SCs	Description
	General Construction
	<ul style="list-style-type: none"> • Utilize 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.

3.2.3 Thresholds of Significance

Pursuant to Appendix G of the CEQA *Guidelines*, the Project would result in a significant impact related to air quality if it would:

- a) Conflict with or obstruct the implementation of the applicable air quality plan (see Impact 3.2-1, below);
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation (see Impact 3.2-2, below);
- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (see Impact 3.2-3, below);
- d) Expose sensitive receptors to substantial pollutant concentrations (see Impact 3.2-4, below); or
- e) Create objectionable odors affecting a substantial number of people (see Initial Study section 4.3 in Appendix A of this Draft EIR).

Pursuant to CEQA Guidelines (Section 15064.7), a lead agency may consider using, when available, the significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The Project would be under the SCAQMD’s jurisdiction. SCAQMD has established air quality significance criteria in its CEQA Air Quality Handbook. These criteria are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD, 1993). The potential air quality impacts of the Project are, therefore, evaluated according to the most recent criteria adopted by the SCAQMD in connection with its CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent SCAQMD guidance as discussed previously.¹

¹ While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects such as the Project. As a result, lead emissions are not further evaluated in this Draft EIR.

Construction Emissions

The SCAQMD has established numerical emission indicators of significance for construction. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD, 1993). Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numeric indicators of significance specific to construction activity. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily regional emissions criteria (SCAQMD, 2015):
 - 75 pounds a day for VOC;
 - 100 pounds per day for NO_x;
 - 550 pounds per day for CO;
 - 150 pounds per day for SO₂;
 - 150 pounds per day for PM₁₀; or
 - 55 pounds per day for PM_{2.5}.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions of NO_x and/or CO during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for NO₂ and/or CO (SCAQMD, 2008).
- Maximum daily localized emissions of PM₁₀ and/or PM_{2.5} during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 10.4 µg/m³ over 24 hours (SCAQMD Rule 403 control requirement).

As discussed in detail in Section 3.2.4 *Methodology*, the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore, not cause, or contribute to, an exceedance of the applicable ambient air quality standards, or ambient concentration limits without Project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions for a 5-acre site located within 25 meters from a sensitive receptor in the Central Los Angeles County Monitoring Area:

- 161 pounds per day for NO_x;
- 1,861 pounds per day for CO;
- 16 pounds per day for PM₁₀; or
- 8 pounds per day for PM_{2.5}.

Operational Emissions

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD, 1993). The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the Clean Air Act which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone (SCAQMD, 1993). The Air Basin is designated as extreme non-attainment for ozone. The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year \times 2,000 pounds per ton \div 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on federal stationary source significance levels. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional operational emissions exceed any of the following SCAQMD prescribed daily regional emissions criteria (SCAQMD, 2015):
 - 55 pounds a day for VOC;
 - 55 pounds per day for NOX;
 - 550 pounds per day for CO;
 - 150 pounds per day for SO₂;
 - 150 pounds per day for PM₁₀; or
 - 55 pounds per day for PM_{2.5}.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following were to occur:

- Maximum daily localized emissions of NO_x and/or CO during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for NO₂ and/or CO (SCAQMD, 2015).
- Maximum daily localized emissions of PM₁₀ and/or PM_{2.5} during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 2.5 $\mu\text{g}/\text{m}^3$ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

As discussed in detail in Section 3.2.4 *Methodology*, the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore, not cause, or contribute to, an exceedance of the applicable ambient air quality standards, or ambient concentration limits without Project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions for a 5-acre site located within 25 meters from a sensitive receptor in the Central Los Angeles County Monitoring Area:

- 161 pounds per day for NO_x;
- 1,861 pounds per day for CO;
- 4 pounds per day for PM₁₀; or
- 2 pounds per day for PM_{2.5}.

Carbon Monoxide Hotspots

With respect to the formation of CO hotspots, the Project would be considered significant if the following would occur:

- The Project would cause, or contribute to, an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively.

Toxic Air Contaminants

Based on criteria set forth by the SCAQMD, the Project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following were to occur (SCAQMD, 1993):

- The Project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or
- An acute or chronic hazard index of 1.0.

3.2.4 Methodology

Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., O₃ and PM_{2.5}). The SCAQMD's AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the RTP/SCS, which provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans.

The 2016 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's numeric indicators.

Construction Emissions

Construction of the proposed Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, and through vehicle trips generated from worker trips and haul trucks traveling to, and from, the Project site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming conservative construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from OFFROAD and EMFAC, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. Default CalEEMod inputs were used for the modeling unless Project specific details were available to adjust the Project input values based on construction equipment and schedule information from similar land use development projects in the LAUSD. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix D of this Draft EIR.

Construction of the proposed Project was assumed to begin in fall 2020. Construction may commence at a later date than that analyzed in this air quality impact analysis. If this occurs, construction impacts should be less than those analyzed herein, because a more energy-efficient and cleaner burning construction equipment fleet mix are expected in the future, pursuant to State regulations that require construction equipment fleet operators to phase-in less polluting heavy-duty equipment. As a result, should the proposed Project commence construction at a later date, air quality impacts are anticipated to be less than the impacts disclosed herein. Sub-phases of construction would include soil removal, demolition, grading, building construction, paving, and architectural coating. Emissions from these activities are estimated by construction phase. The maximum daily emissions are predicted values for the worst-case day and do not necessarily represent the emissions that would occur for every day of Project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators.

Operational Emissions

With respect to SUP modernization projects, the Program EIR states that operational activities would be less than significant, as these projects would not increase capacity to existing schools and net Project emissions would be minimal. Additionally, overall District enrollment is forecast to decrease over the next ten years and operational emissions are not expected to increase in the long-term (LAUSD, 2015).

The proposed Project would replace and upgrade facilities on the Campus of Burroughs Middle School, but it would not increase the number of students, or faculty, at the school, and would not introduce major new emission sources. No new vehicle trips would be generated, and there would be no increase in mobile source emissions. Furthermore, building upgrades and replacement of old, energy-inefficient structures with those that use less energy would reduce emissions from space heating and other onsite sources. Therefore, there would be no net increase in regional emissions of any criteria pollutant, and the impact would be less than significant. Additionally, the District is required to comply with all applicable SCs, and would implement SC-AQ-5 to further reduce Project-related operational impacts. Therefore, operational emissions are not discussed further in this document.

Localized Emissions

The localized effects from the on-site portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the proposed Project according to the SCAQMD's Localized Significance Threshold Methodology, which relies on onsite mass emission rate screening tables and Project-specific dispersion modeling, where appropriate. The localized significance thresholds are only applicable to NO_x, CO, PM₁₀, and PM_{2.5}. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore, would not cause, or contribute to, an exceedance of the applicable ambient air quality standards without Project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the Project is located, (2) the size of the Project site, and (3) the distance between the Project site and the nearest sensitive receptor (e.g., residences, schools, hospitals). The Project site is located in the Central Los Angeles County area and no greater than approximately 5 acres would be worked on at a time. The nearest sensitive receptors would be the students onsite at Burroughs Middle School during construction of the Project and residences adjacent to the Project site. Therefore, to ensure a conservative analysis, the screening criteria was applied to a 5-acre site in Central Los Angeles County with a 25-meter receptor distance. According to the SCAQMD, projects with boundaries located closer than 25 meters to the nearest receptor should use the local significance thresholds (LSTs) for receptors located at 25 meters (SCAQMD, 2008).

Carbon Monoxide Hotspots

Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at, or near, ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause, or contribute to, the formation of offsite CO hotspots are evaluated based on prior dispersion modeling conducted by SCAQMD in the Los Angeles Area, as discussed in the Program EIR.

The proposed Project would replace, or upgrade, facilities on the Campus of Burroughs Middle School, but it would not increase the number of students, or faculty, at the high school, and would not introduce major new emission sources. No new operational vehicle trips would be generated, and there would be no increase in mobile source CO emissions. Therefore, CO Hotspots are not discussed further in this document.

Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short-term in nature. During long-term operations, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to offsite sensitive receptors. The potential for the Project to result in significant health risk impacts are evaluated based on guidance provided in the Program EIR.

3.2.5 Impact Analysis

Air Quality Plan

Impact 3.2-1: The Project would not conflict with, or obstruct, implementation of the applicable air quality plan.

The Project site is located within the Air Basin. The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment (i.e., ozone, PM10, and PM2.5). The Project would be subject to the SCAQMD's AQMP, which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. A project is consistent with the AQMP if it is consistent with the population, housing and employment assumptions that were used in the development of the AQMP. Neither the Burroughs Middle School Comprehensive Modernization Project nor the SUP as a whole is a large, regionally significant project that would affect the regional growth projections made by the SCAG and used by the SCAQMD in formulating its AQMP. The student and faculty population at the school would not increase as a result of the Project.

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the air quality plan is based. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP is based. 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 be in compliance 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-2 through SC-AQ-4. 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. These methods would include: maintain slow speeds for vehicles, applying water/mist to dirt as it is loaded and unloaded, minimize soil drop heights, covering haul truck loads, and using polyethylene sheeting to cover excavated areas and dirt stockpiles. SC-AQ-4 is intended to reduce construction exhaust and fugitive dust emissions with a number of features, including, but not limited to: restricting diesel engine idling times to no more than five consecutive minutes, utilizing ultra-low sulfur diesel fuel, utilizing off-road construction equipment that is compliant with Tier 3 engine standards at a minimum, applying soil stabilizers, replacing ground cover as soon as possible, and installing wheel washers.

Compliance with these requirements is consistent with, and meets, or exceeds, the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with, or obstruct, implementation of the AQMP. Additionally, the projected emissions from the Project would not exceed the SCAQMD's regional significance thresholds, as discussed below in Impact 3.2-2. Thus, the Project would not be considered by SCAQMD to be a substantial source of air pollutant emissions, and would not conflict, or obstruct, implementation of the AQMP. Therefore, impacts would be less than significant with respect to construction activities.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant

Regional Emissions

Impact 3.2-2: The Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The worst-case daily emissions were calculated as maximum daily construction emissions for each phase by year. Detailed emissions calculations are provided in Appendix D of this Draft EIR. Results of the criteria pollutant calculations are presented in **Table 3.2-5 Maximum Daily Unmitigated Regional Construction Emissions (pounds per day)**. As shown therein, 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 indicators. These calculations include compliance with appropriate dust control measures required to be implemented during each phase of development, as required by SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-2 through SC-AQ-4. As discussed previously, 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. Because 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.

With respect to all SUP projects, including the proposed Project, the Program EIR states that construction activities may generate short-term emissions that exceed significance thresholds. Though construction emissions for this Project are not expected to exceed regional thresholds, the District will implement SCs AQ-2, SC-AQ-3, and AQ-4 to ensure that construction emissions would have minimal impacts. Also, criteria pollutant emissions would occur outside of SCAQMD's jurisdiction during transportation of contaminated soil to Buttonwillow, California. Transportation of contaminated soil would occur within the San Joaquin Valley Air Pollution District (SJVAPD). The Project would be substantially below the SJVAPD's Thresholds of Significance for all criteria pollutants, as shown in **Table 3.2-6, San Joaquin Valley Air Basin Hauling Emissions (Tons per Year)**. Emissions associated with the transportation of contaminated soil within SCAQMD boundaries is included in maximum daily emissions shown for Phase 2F Demolition and Soil Remediation.

**TABLE 3.2-5
MAXIMUM DAILY UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY) ^A**

Phase	Daily Regional Maximum (lbs/day)					
	ROG	NOX	CO	SO2	PM10	PM2.5
1A Building Site Access (2020)	2.09	11.79	23.41	0.04	2.30	1.07
1A Build LAN Room (2020)	1.52	15.35	16.62	0.05	2.63	1.05
1A Paving Architectural Coating (2020)	25.03	1.86	7.95	0.02	1.78	0.55
1B Demolition (2020)	0.82	11.94	18.08	0.03	1.24	0.79
1C Electrical and LV Trench (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Utilities Installation (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Temporary Parking (2020)	1.15	11.46	19.33	0.03	1.17	0.76
1D Paving Architectural Coating (2020)	12.60	1.52	3.87	0.01	0.66	0.25
1D Temporary Parking (2021)	1.13	11.45	19.17	0.03	1.17	0.76
1D Paving Architectural Coating (2021)	12.58	1.51	3.71	0.01	0.66	0.25
1D Bungalow Installation (2021)	0.94	14.21	12.18	0.04	1.47	0.71
2A Seismic Modification (2021)	0.57	6.84	9.67	0.02	2.78	1.43
2A Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2A Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2B Demolition (2021)	0.85	13.73	18.31	0.04	1.95	0.92
2B Building Construction (2021)	0.97	15.17	12.44	0.04	1.54	0.73
2B Building Construction (2022)	0.92	14.70	12.18	0.04	1.53	0.72
2B Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2B Architectural Coating (2023)	47.65	1.48	3.44	0.01	0.66	0.25
2C Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2C Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2024)	0.53	6.80	9.29	0.02	2.77	1.43
2E Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2E Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2F Demolition & Soil Remediation (2023)	1.84	40.32	24.13	0.14	4.81	1.71
2G Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43

Phase	Daily Regional Maximum (lbs/day)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2G Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2I Parking Lot (2023)	0.83	11.42	18.90	0.03	1.17	0.76
2I Paving Architectural Coating (2023)	0.89	1.48	3.44	0.01	0.66	0.25
2F Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2F Building Construction (2024)	0.80	12.66	11.64	0.04	1.51	0.70
2F Architectural Coating (2024)	5.48	1.47	3.33	0.01	0.66	0.25
3A Demo Interim Housing (2024)	0.76	11.81	17.53	0.03	1.24	0.79
3A Demo Interim Housing (2025)	0.75	11.80	17.42	0.03	1.24	0.79
3B New Field (2024)	0.53	6.80	9.29	0.02	2.77	1.43
3B New Field (2025)	0.52	6.79	9.18	0.02	2.77	1.43
3C Demolition (2024)	0.76	11.83	17.53	0.03	1.25	0.79
3C North Parking Lot (2024)	0.83	11.41	18.79	0.03	1.17	0.76
3C Paving Architectural Coating (2024)	1.39	1.47	3.33	0.01	0.66	0.25
3C North Parking Lot (2025)	0.82	11.40	18.69	0.03	1.17	0.76
3C Paving Architectural Coating (2025)	1.38	1.46	3.22	0.01	0.66	0.25
Overlapping Phases						
1A Site Access + 1A Paving Arch Coating (2020)	27.11	13.65	31.36	0.06	4.08	1.62
1D Temporary Parking + 1D Paving Arch Coating (2020)	13.75	12.99	23.20	0.04	1.83	1.01
1D Temporary Parking + 1D Paving Arch Coating (2021)	13.71	12.95	22.88	0.04	1.83	1.01
1D Bungalow Installation + 2A Modifications (2021)	1.51	21.05	21.85	0.06	4.25	2.14
2A Modification + 2B Demo + 2B Construction (2021)	2.39	35.74	40.42	0.10	6.27	3.08
2A Modification + 2B Construction + 2C Modification (2022)	2.03	28.35	31.23	0.08	7.08	3.59
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	49.56	27.81	34.02	0.09	7.72	3.82
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	5.65	91.68	92.40	0.29	18.59	8.91
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	7.87	34.52	42.83	0.10	10.49	5.24
2I Parking Lot + 2I Paving Arch Coating (2023)	1.72	12.90	22.33	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2024)	2.21	12.88	22.12	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2025)	2.20	12.86	21.91	0.04	1.83	1.01
Maximum	49.56	91.68	92.40	0.29	18.59	8.91
SCAQMD Daily Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix D of this Draft EIR.

^a Totals may not add up exactly due to rounding in the modeling calculations.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

**TABLE 3.2-6
SAN JOAQUIN VALLEY AIR BASIN HAULING EMISSIONS (TONS PER YEAR)**

Phase	VOC	NO _x	CO	SO ₂	PM10 ^b	PM2.5 ^b
2F Demolition & Soil Remediation (2023)	0.08	3.31	0.32	0.01	0.08	0.04
SJVAPD Significance Thresholds	10	10	100	27	15	15
Exceeds Threshold?	No	No	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix D of this Draft EIR.

^a Totals may not add up exactly due to rounding in the modeling calculations.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant.

Cumulatively Considerable Non-Attainment Pollutants

Impact 3.2-3: The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Short-term pollutants would be generated by construction of the proposed Project. The Project site currently operates as a middle school and would continue do so after construction. The proposed Project would not introduce any new long-term pollutants when operational. Therefore, only short-term construction emissions were evaluated for cumulative impacts.

Since the District has no control over the timing or sequencing of the related projects, any quantitative analysis of related projects to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD’s methodology to assess a project’s cumulative impact differs from the cumulative impacts methodology employed for other environmental topics. The SCAQMD recommends that Project-specific air quality impacts of the proposed Project be used to determine the potential cumulative impacts to regional air quality. The proposed Project would result in the emission of criteria pollutants for which the area is in non-attainment during construction. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment for O₃, PM10, and PM2.5.

The emissions from construction of the proposed Project are not predicted to exceed the SCAQMD regional (see Impact 3.2-2), or localized (see Impact 3.2-4), 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-2, SC-AQ-3, and SC-AQ-4 to ensure

that construction emissions would minimize off-site impacts.^{2, 3} Therefore, the Project would not result in a cumulatively considerable net increase for non-attainment pollutants, or O₃ precursors, and would result in a less than significant impact for construction emissions.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant.

Sensitive Receptors

Impact 3.2-4: The Project would not expose sensitive receptors to substantial pollutant concentrations.

Localized Emissions

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD *Localized Significance Threshold Methodology* (SCAQMD, 2008). The screening criteria provided in the *Localized Significance Threshold Methodology* were used to determine localized construction emissions thresholds for the Project. The maximum daily localized emissions for each of the construction phases and localized significance thresholds are presented in **Table 3.2-7, Maximum Unmitigated Localized Construction Emissions (Pounds Per Day)**. As shown therein, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_x, CO, PM₁₀, and PM_{2.5}. Therefore, impacts would be less than significant with respect to localized emissions from construction activities.

**TABLE 3.2-7
 MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY) ^A**

Phase	Daily Localized Maximum (lbs/day)			
	NOX	CO	PM10	PM2.5
1A Building Site Access (2020)	11.3	17.3	0.6	0.6
1A Build LAN Room (2020)	8.2	8.8	0.4	0.4
1A Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1B Demolition (2020)	11.7	16.0	0.7	0.6
1C Electrical and LV Trench (2020)	11.6	16.0	0.6	0.6
1D Utilities Installation (2020)	11.6	16.0	0.6	0.6
1D Temporary Parking (2020)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1D Temporary Parking (2021)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2021)	1.4	1.8	0.1	0.1
1D Bungalow Installation (2021)	8.2	8.7	0.4	0.4
2A Seismic Modification (2021)	6.7	7.8	2.2	1.3

² Los Angeles Unified School District, 2015. School Upgrade Program Final Environmental Impact Report, <http://achieve.lausd.net/ceqa>. Adopted by the Board of Education on November 10, 2015. Pgs 5.3-28 to 5.3-30.

³ Los Angeles Unified School District, 2015. School Upgrade Program Final Environmental Impact Report, <http://achieve.lausd.net/ceqa>. Adopted by the Board of Education on November 10, 2015. Pgs. 5.3-27 to 5.3-28.

Phase	Daily Localized Maximum (lbs/day)			
	NOX	CO	PM10	PM2.5
2A Seismic Modification (2022)	6.7	7.8	2.2	1.3
2A Seismic Modification (2023)	6.7	7.8	2.2	1.3
2B Demolition (2021)	11.8	16.0	1.3	0.7
2B Building Construction (2021)	8.4	8.8	0.4	0.4
2B Building Construction (2022)	8.3	8.8	0.4	0.4
2B Building Construction (2023)	8.3	8.7	0.4	0.4
2B Architectural Coating (2023)	1.4	1.8	0.1	0.1
2C Seismic Modification (2022)	6.7	7.8	2.2	1.3
2C Seismic Modification (2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2024)	6.7	7.8	2.2	1.3
2E Seismic Modification (2023)	6.7	7.8	2.2	1.3
2E Seismic Modification (2024)	6.7	7.8	2.2	1.3
2F Demolition & Soil Remediation (2023)	13.9	16.4	2.1	0.9
2G Seismic Modification (2023)	6.7	7.8	2.2	1.3
2G Seismic Modification (2024)	6.7	7.8	2.2	1.3
2I Parking Lot (2023)	11.3	17.3	0.6	0.6
2I Paving Architectural Coating (2023)	1.4	1.8	0.1	0.1
2F Building Construction (2023)	8.3	8.7	0.4	0.4
2F Building Construction (2024)	8.3	8.7	0.4	0.4
2F Architectural Coating (2024)	1.4	1.8	0.1	0.1
3A Demo Interim Housing (2024)	11.7	16.0	0.7	0.6
3A Demo Interim Housing (2025)	11.7	16.0	0.7	0.6
3B New Field (2024)	6.7	7.8	2.2	1.3
3B New Field (2025)	6.7	7.8	2.2	1.3
3C Demolition (2024)	11.7	16.0	0.7	0.6
3C North Parking Lot (2024)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2024)	1.4	1.8	0.1	0.1
3C North Parking Lot (2025)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2025)	1.4	1.8	0.1	0.1

Overlapping Phases

1A Site Access + 1A Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2021)	12.65	19.13	0.70	0.70
1D Bungalow Installation + 2A Modifications (2021)	14.87	16.53	2.62	1.68
2A Modification + 2B Demo + 2B Construction (2021)	26.85	32.59	3.87	2.41
2A Modification + 2B Construction + 2C Modification (2022)	21.72	24.33	4.82	2.96
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	23.04	26.15	4.91	3.05
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	60.27	73.58	12.00	6.98
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	29.70	33.93	7.12	4.32

Phase	Daily Localized Maximum (lbs/day)				
	NOX	CO	PM10	PM2.5	
2I Parking Lot + 2I Paving Arch Coating (2023)	12.65	19.13	0.70	0.70	
3C Parking Lot + 3C Paving Arch Coating (2024)	12.65	19.13	0.70	0.70	
3C Parking Lot + 3C Paving Arch Coating (2025)	12.65	19.13	0.70	0.70	
	Maximum	60.27	73.58	12.00	6.98
	SCAQMD Daily Threshold (SRA 1)	161	1,861	16	8
	Exceeds Threshold?	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix D of this Draft EIR.

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

^b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

The health-based ambient air quality standards for ozone are as concentrations of ozone and not as tonnages of their precursor pollutants (i.e., NO_x and VOCs). It is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or particulate matter. Because of the complexity of ozone formation and the non-linear relationship of ozone concentration with its precursor gases, and given the state of environmental science modeling in use at this time, it is infeasible to convert specific emission levels of NO_x or VOCs emitted in a particular area to a particular concentration of ozone in that area. Meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone (SCAQMD, 2014) (SJVAPCD, 2014).

As expressed in the *amicus curiae* brief submitted for the *Sierra Club v. County of Fresno* case (*Friant Ranch Case*), the CEQA criteria pollutants significance thresholds from the air district were set at emission levels tied to the region's attainment status, they are emission levels at which stationary pollution sources permitted by the air district must offset their emissions and CEQA projects must use feasible mitigations, and they are not intended to be indicative of any localized human health impact that a project may have (SCAQMD, 2014) (SJVAPCD, 2014). Therefore, just because a project exceeds the mass regional emissions threshold (i.e., pounds per day VOC thresholds) from project-related activities does not necessarily indicate that a project will cause or contribute to the exposure of sensitive receptors to ground-level concentrations in excess of health-protective levels.

The primary health concern with exposure to VOC emissions is the secondary formation of ozone. Based on discussions with air quality management district staff, and as the *amicus curiae* briefs submitted for the Friant Ranch Case suggested, because of the complexity of ozone formation and given the state of environmental science modeling in use at this time, it is infeasible to determine whether, or the extent to which, a single project's precursor (i.e., NO_x and VOCs) emissions would potentially result in the formation of secondary ground-level ozone and the geographic and temporal distribution of such secondary formed emissions (SCAQMD, 2016b).⁴ As previously stated, meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone. Furthermore, available models today are designed to

⁴ Models available today are designed to determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from a project level.

determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by NO_x or VOCs emissions from local level (project level). Notwithstanding these scientific constraints, the disconnect between Project level VOC emissions and ozone-related health impact cannot be bridged at this time.

However, since construction of the Project would not exceed the regional significance thresholds, the Project is not anticipated to contribute to health impacts related to these pollutants.

Toxic Air Contaminants

The proposed Project would require approximately one week to remove a maximum of 500 cubic yards of contaminated soil. Project-related construction also has the potential to expose sensitive receptors to substantial pollutant concentrations of TACs. TACs are pollutants for which neither California nor the federal government has set ambient air quality thresholds, but which still pose health risks to sensitive individuals. The primary TAC of concern from construction is DPM. Inhalation of DPM has been linked to increased cancer risk and chronic health hazards.

The proposed Project includes the modernization and upgrade of facilities on the Burroughs Middle School Campus. The Program EIR states that modernization projects would not cause a change in toxic air contaminant exposure levels (LAUSD, 2015). Therefore, impacts would be less than significant with respect to health risk impacts.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant

3.2.6 Cumulative Impact Analysis

The Project would result in the emission of criteria pollutants for which the region is in non-attainment during both construction and operation. The Air Basin fails to meet national standards for O₃ and PM_{2.5}, and, therefore, is considered a federal “non-attainment” area for these pollutants.

The SCAQMD has provided guidance on an acceptable approach to addressing cumulative impacts for air quality as discussed below (SCAQMD, 2003):

As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

Consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the assessment of the potential for the Project to result in cumulative impacts is based on SCAQMD thresholds.

As shown in Table 3.2-5, regional emissions calculated for the Project would not exceed the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the region in attaining the applicable State and national ambient air quality standards. These standards apply to both primary (criteria and precursor) and secondary pollutants (O₃). Although the Project site is located in a region that is in non-attainment for O₃ and PM_{2.5}, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. In addition, the Project would be consistent with the AQMP, which is intended to bring the Air Basin into attainment for all criteria pollutants.

The SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed for other environmental topics such as traffic, which are typically based on the number, types, and proximity to related projects. The SCAQMD recommends that Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality.

With respect to the Project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal CAA mandates. Construction of the Project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time (per SC-AQ-4). Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all construction projects in the Air Basin, which would include the cumulative projects in the Project area. As shown above in Table 3.2-5 and Table 3.2-7, regional and localized construction emissions associated with the Project would not exceed the SCAQMD daily significance thresholds. As such, the Project's contribution to cumulatively significant construction impacts to air quality would not be cumulatively considerable and cumulative impacts would be less than significant for regional and localized criteria pollutants during construction.

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3.3 Cultural Resources

This section addresses the potential impacts of the Project to cultural resources in the Project vicinity in accordance with the significance criteria established in Appendix G of the *CEQA Guidelines*. This section is based on the following sources: *CEQA Historic Resources Technical Report* prepared by ESA (2018), and an *Archaeological and Paleontological Resources Report* prepared by ESA (2018) (**Appendix E1 and E2**).

Cultural resources include prehistoric and historic-period sites, structures, districts, places, and landscapes, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious or other reasons. Under CEQA, paleontological resources, although not associated with past human activity, are grouped within cultural resources. For the purposes of this analysis, cultural resources may be categorized into the following groups: archaeological resources, historic resources (including architectural/engineering resources), contemporary Native American resources, human remains, and paleontological resources.

3.3.1 Environmental Setting

Natural Setting

The proposed Project site is currently a middle school composed of a number of standing buildings as well as landscaped and hardscaped surfaces. The Project site is located in a highly urbanized portion of the Los Angeles Basin in an area dominated by residential and business development.

Geologic Setting

The Project site is situated in the Los Angeles Basin, in the northern Peninsular Ranges geomorphic province. The Peninsular Ranges extend eastward from the Los Angeles coastline to the San Bernardino Fault and from the San Diego coastline to the Colorado Desert and is characterized by northwest-trending mountains and valleys (Norris and Webb, 1990). The Los Angeles Basin is a structural depression approximately 50 miles long and 20 miles wide (Ingersoll and Rumelhart, 1999). The Los Angeles basin developed as a result of tectonic forces along the San Andreas fault zone, with subsidence occurring 18 – 3 million years ago (Mya) (Critelli et al., 1995). While sediments dating back to the Cretaceous (66 million years ago) are preserved in the basin, continuous sedimentation began in the middle Miocene (around 13 million years ago) (Yerkes et al., 1965). Since that time, eroded sediments from the surrounding highlands have been deposited in the basin, resulting in thousands of feet of accumulation (Yerkes et al., 1965). Most of these sediments were marine in nature, until sea level dropped in the Pleistocene and deposition of the terrestrial alluvial sediments that compose the uppermost units in the Los Angeles Basin began.

The Los Angeles Basin is subdivided into four structural blocks, with the Project site occurring in the Central Block, where sediments range from 32,000 to 35,000 feet thick (Yerkes et al., 1965). The Central Block is wedge-shaped, extending from the Santa Monica Mountains in the northwest, where it is about 10 miles wide, to the San Joaquin Hills in the southeast, where it widens to around 20 miles across (Yerkes et al., 1965).

The rapid sedimentation of the Los Angeles Basin resulted in the preservation of the organic content of much of the marine sediments, forming the most productive oil-producing district in California (Yerkes et al., 1965). The Project site is to the immediate southeast of the Salt Lake Oil Field which is roughly centered along Beverly Boulevard (Dibblee and Ehrenspeck, 1991). These oil-producing sediments are relevant to the paleontology of the area, as they are the cause of the world-famous La Brea Tar Pits, located at Hancock Park about one mile west of the Project site. The asphaltic sands of the La Brea Tar Pits form when petroleum seeps upward into the overlying alluvial sediments (Spencer et al., 2003). In places where the petroleum reached the surface, sticky pools of asphalt were left behind as the lighter petroleum products evaporated (Akersten et al., 1983). These pools would then trap most organisms that came into contact with them, including everything from pollen and plant seeds to mammoths, analogous to how fly-paper or quick sand works (Harris, 2015). The deposits at the La Brea Tar Pits are recognized as one of the densest fossil deposits in the world.

Prehistoric Setting

The chronology of southern California is typically divided into three general time periods: the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), and the Late Holocene (1,650 cal B.C. to cal A.D. 1769). This chronology is manifested in the archaeological record by particular artifacts and burial practices that indicate specific technologies, economic systems, trade networks, and other aspects of culture.

While it is not certain when humans first came to California, their presence in southern California by about 9,600 cal B.C. has been well documented. At Daisy Cave, on San Miguel Island, cultural remains have been radiocarbon dated to between 9,150 and 9,000 cal B.C. (Byrd and Raab, 2007). During the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the climate of Southern California became warmer and more arid and human populations, who likely lived in small bands, appear to have resided mainly in coastal or inland desert areas. As the climate dried, they began to exploit a wider range of plant and animal resources (Byrd and Raab, 2007).

During the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), there is evidence for the processing of acorns for food and a shift toward a more generalized economy. The first confirmed evidence of human occupation in the Los Angeles area is associated with the Millingstone cultures, which appeared in California around 6,000-5,000 cal B.C. (Byrd and Raab, 2007; Wallace, 1955; Warren, 1968). Millingstone cultures were characterized by the collection and processing of plant foods, particularly acorns, and the hunting of a wider variety of game animals (Byrd and Raab, 2007; Wallace, 1955). Millingstone cultures also established more permanent settlements that were located primarily on the coast and in the vicinity of estuaries, lagoons, lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds, were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than approximately 3,000 B.C. contain a mortar and pestle complex as well, signifying the exploitation of acorns in the region.

During the Late Holocene (1,650 cal B.C. to cal A.D. 1769), many aspects of Millingstone culture persisted, but a number of socioeconomic changes occurred (Erlandson, 1994; Wallace, 1955; Warren, 1968). The native populations of southern California were becoming less mobile and populations

began to gather in small sedentary villages with satellite resource-gathering camps. Increasing population size necessitated the intensified use of existing terrestrial and marine resources (Erlandson, 1994). Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence, towards a focus on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab, 2007). Between about A.D. 800 and A.D. 1350, there was an episode of sustained drought, known as the Medieval Climatic Anomaly (MCA) (Jones et al., 1999). While this climatic event did not appear to reduce the human population, it did lead to a change in subsistence strategies in order to deal with the substantial stress on resources. The Late Holocene marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and non-utilitarian materials were acquired, and travel routes were extended. Trade during this period reached its zenith as asphaltum (tar), seashells, and steatite were traded from Catalina Island (*Pimu* or *Pimugna*) and coastal southern California to the Great Basin. Major technological changes appeared as well, particularly with the advent of the bow and arrow sometime after cal A.D. 500, which largely replaced the use of the dart and atlatl (Byrd and Raab, 2007).

Ethnographic Setting

The Project site is located in a region traditionally occupied by the Takic-speaking Gabrielino Indians. The term “Gabrielino” is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber, 1925). Their neighbors included the Chumash to the north, the Juañeno to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith, 1978). The Gabrielino language is part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near stable water and food supplies. Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber, 1925). Villages are reported to have been the most abundant in the San Fernando Valley, the Glendale Narrows area north of downtown, and around the Los Angeles River’s coastal outlets (Gumprecht 2001). The nearest villages to the Project site were *Kuruvungna* and *Yangna*, located approximately 7 miles southwest and 6 miles east of the Project site, respectively (McCawley, 1996).

The Project site is also located approximately one mile east of the La Brea Tar Pits, which were visited by the Gabrielino in prehistoric and historic times for the purpose of extracting tar, a prized resource for making weapons, vessels and jewelry, and waterproofing for canoes and roofing (Selden and Nudds, 2004). The alignment of present-day Wilshire Boulevard, which is located immediately south of the Project site, was constructed on a trail established by the Gabrielino which connected the village of *Yangna* to the tar pits (Roderick and Lynxwiler, 2005).

Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using

bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith, 1978). The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry.

Gabrielino society was characterized by patrilineal, non-localized clans, each clan consisting of several lineages. The Gabrielino inhabited large circular, domed houses constructed of willow poles thatched with tule (Bean and Smith, 1978). These houses could sometimes hold up to 50 people. Other village structures of varying sizes served as sweathouses, ceremonial enclosures, and granaries.

At the time of Spanish contact, many Gabrielino practiced a religion that was centered around the mythological figure *Chinigchinich* (Bean and Smith, 1978). This religion may have been relatively new when the Spanish arrived, and was spreading at that time to other neighboring Takic groups. The Gabrielino practiced both cremation and inhumation of their dead. A wide variety of grave offerings, such as stone tools, baskets, shell beads, projectile points, bone and shell ornaments, and otter skins, were interred with the deceased.

Coming ashore on Santa Catalina Island in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino-Tongva; the 1769 expedition of Portolá also passed through Gabrielino territory (Bean and Smith, 1978). Native Americans suffered severe depopulation and their traditional culture was radically altered after Spanish contact. Nonetheless, Gabrielino descendants still reside in the greater Los Angeles and Orange County areas and maintain an active interest in their heritage.

CA-LAN-159 (“La Brea Woman”)

In 1914, the remains of “La Brea Woman” (or CA-LAN-159) were discovered at Pit 10 of the La Brea Tar Pits approximately six to nine feet below the ground surface (Heizer, 1949). Speculations have been made that La Brea Woman was between 25 to 30 years old at death, although her age has not been scientifically confirmed (Kennedy, 1989). There have also been many attempts at dating La Brea Woman’s skeleton. In 1971, bone collagen extracted from La Brea Woman’s remains yielded a date of 9,000 Radiocarbon Years Before Present (“RYBP”); however; Erlandson (1994) suggests that these dates be regarded with caution given the problems with dating bone collagen and decontaminating samples from tar seeps. Several bones of Pleistocene fauna that exhibit possible butchering marks that were found associated with the remains should also be regarded with caution. A mano, shell beads, and extinct fauna are also known to have been discovered in association with the human remains. The shell beads were studied by Chester King in 1988 and he believes that they are similar to the ones found in Level 1 at the Malaga Cove site in the Santa Monica Bay, which suggests that an early Holocene age (i.e., 12,000 to 8,000 years before present) for the remains is valid. Michael Moratto has also hypothesized that the extinct fauna discovered with La Brea Woman’s remains (with different radio carbon dates of 12,650 RYBP and 15,200 RYBP) raise the possibility of a late Pleistocene human presence in the Los Angeles area (Erlandson, 1994). The remains of a domestic dog were also identified and analyzed more than seventy years after they were recovered from Pit 10 and are likely associated with La Brea Woman (Reynolds, 1985). Lastly, a wooden foreshaft (perhaps for an atlatl), dart shafts and a cogstone were recovered from Pits 61 and 67 of the tar pits (Heizer, 1949).

Historic Setting

Spanish Period (A.D. 1769-1821)

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained European exploration of southern California began in 1769, when Gaspar de Portolá and a small Spanish contingent began their exploratory journey along the California coast from San Diego to Monterey. This was followed in 1776 by the expedition of Father Francisco Garcés (Johnson and Earle, 1990). In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. In 1771, Father Junipero Serra founded the Mission San Gabriel Arcángel, located approximately 13 miles northeast of the Project site (California Missions Resource Center, 2003). Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook, 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

In an effort to promote Spanish settlement of Alta California, Spain granted several large land concessions from 1784 to 1821. At this time, unless certain requirements were met, Spain retained title to the land (State Lands Commission, 1982).

Mexican Period (A.D. 1821-1848)

The Mexican Period began when Mexico won its independence from Spain in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands and redistributing them as land grants. According to the terms of the Secularization Law of 1833 and Regulations of 1834, at least a portion of the lands would be returned to the Native populations, but this did not always occur (Milliken et al., 2009).

Many ranchos continued to be used for cattle grazing by settlers during the Mexican Period. Hides and tallow from cattle became a major export for Californios, many of whom became wealthy and prominent members of society. The Californios led generally easy lives, leaving the hard work to vaqueros and Indian laborers (Pitt, 1994; Starr, 2007).

American Period (1846–present)

In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated in 1847, and Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo in 1848. California officially became one of the United States in 1850. While the treaty recognized the right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities, the claimant was required to prove their right to the land before a patent was given. The process was lengthy and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr, 2007).

When the discovery of gold in northern California was announced in 1848, a huge influx of people from other parts of North America flooded into California. The increased population provided an additional outlet for the Californios' cattle. As demand increased, the price of beef skyrocketed and

Californios reaped the benefits. However, a devastating flood in 1861, followed by droughts in 1862 and 1864, led to a rapid decline of the cattle industry; over 70 percent of cattle perished during these droughts (McWilliams, 1946; Dinkelspiel, 2008). This event, coupled with the burden of proving ownership of their lands, caused many Californios to lose their lands during this period (McWilliams, 1946). Former ranchos were subsequently subdivided and sold for agriculture and residential settlement.

The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into northern California. Southern California experienced a trickle-down effect as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe Route, was completed in 1886 and caused a fare war, driving fares to an unprecedented low. Settlers flooded into the region and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The subdivision of the large ranchos took place during this time (Meyer, 1981; McWilliams, 1946). During the first three decades of the 20th century, more than 2 million people moved to Los Angeles County, transforming it from a largely agricultural region into a major metropolitan area.

Los Angeles Unified School District (LAUSD)

The historic context developed below presents the historical and architectural background of LAUSD and Burroughs MS. Historical themes discussed below that are associated with the establishment, development, and use of Burroughs MS include 1) LAUSD: Founding Years (1870s-1909), 2) LAUSD: Pre-1933 Long Beach Earthquake School Plants (1910-1933), and 3) LAUSD: and Post-1933 Long Beach Earthquake Schools (1933-1945).

LAUSD: Founding Years (1870s-1909)

The Los Angeles City School District (now known as LAUSD) was founded in 1872, shortly before the massive increase in Southern California's population in the 1880s. The population boom was brought on by the completion of the transcontinental railroad and the rampant land speculation that accompanied it. The population of Los Angeles jumped from 10,000 to 100,000 within the span of two decades between 1880 and 1900. By 1910, the population reached 320,000. Such extraordinary growth led to a number of problems in the new school district. These included overcrowding, no uniform curriculum, wildly disparate education levels of incoming students, and a severe lack of funding. Just before the turn-of-the-century, the District was finally granted the authority to sell bonds and was able to raise \$200,000 for a desperately needed new building campaign. Through a series of these campaigns, LAUSD was able to construct modern school facilities representative of the new, progressive education movement sweeping through the United States during this period. Los Angeles took great pride in its schools, as residents saw their new facilities and modern teaching methods as part of the city's urban development that helped create a city that could rival San Francisco (Sapphos Environmental, Inc., 2014).

LAUSD: Pre-1933 Long Beach Earthquake School Plants (1910-1933)

The early 20th century was an important period of development for the Los Angeles area. In 1913, the Los Angeles Aqueduct was opened, creating easier access to water for residents while the burgeoning film industry boosted the economy. In the realm of architecture, the University of Southern California began to confer Southern California's first professional degrees in architecture in 1925, establishing Los Angeles as a center of architecture in the region. During this period, the American education system was profoundly influenced by the Progressive Education Movement. This movement brought sweeping change to education and educational facilities around the country. During this time, educators moved away from the authoritarian methods of their predecessors and placed greater emphasis on the teaching of abstract concepts and real life skills. Additionally, the one-size-fits-all mentality of the previous era gave way to a new focus on the needs of the individual student and transformed public schools into centers of community. As the educational method in America changed, the built environment of educational facilities also began to shift to better accommodate the new style of teaching. The writings of John J. Donovan, a graduate of Massachusetts Institute of Technology who later practiced architecture in Oakland, California, were especially influential during this time. Donovan's book, *School Architecture: Principles and Practices*, was published in 1921 and widely read by architects. Donovan discouraged monumental school buildings, focusing instead on simple and functional designs with low massing, outdoor spaces, and regional or revival styles (Sapphos Environmental, Inc., 2014).

During the 1920s, Southern California was experiencing an unprecedented population boom. Los Angeles County, for example, had experienced an increase of 133.2% in population from the previous decade. Grammar schools in particular were becoming overcrowded. These second-generation school buildings (1910-1933) were of masonry; brick was a popular structural and decorative cladding material, as were hollow clay tile and concrete, the latter often manipulated to resemble stone or other materials. Most often two stories in height, second generation schools were less fortress-like although an institutional appearance was usually maintained. New styles were introduced, including the Romanesque Revival, Italian Renaissance Revival, Spanish Colonial Revival, and Collegiate Gothic Revival. As a rule, the school initially would be planned as a single building, with spaces allocated for standardized classrooms; special kindergarten rooms with toilets en suite; principal's and vice principal's offices; and boys' and girls' toilet rooms. Rooms were arrayed off of double-loaded corridors in the most common arrangement, establishing a linear organization to building plans that had been missing in earlier plants. During this period, designers were increasingly concerned with the provision of natural light and fresh air, and as a consequence, another signature element of school design became a regular feature: the repetition of bays of windows often stacked three high. Buildings were either massed as single rectangular units or embellished with wings set perpendicular to the main body of the building, frequently enclosing, all or in part, a courtyard space. Usually auditoriums, or cafeterias if provided, would be located in a wing. Gymnasiums, introduced at the junior high and senior high levels, were housed in separate buildings of more utilitarian design. Similarly, shops were often located in industrial-like buildings, provided with large spaces and open truss roofs.

LAUSD: Post-1933 Long Beach Earthquake Schools (1933-1945)

Although the Great Depression and World War II brought a number of challenges to the district, the schools constructed and reconstructed during the post-earthquake period laid the groundwork for the

modern school designs prevalent in the Postwar era. Modernism was still in its early days, but the driving principles of the Modern design ethos had already begun to gain ground in school architecture, beginning in the late 1920s and continued through World War II. Revival styles, so popular in the early decades of the 20th century, were largely eschewed in favor of simple, purpose-driven architecture. New emphasis was placed on honesty in structure and materials, and the function of the building superseded stylistic considerations. Early examples of this type of design include Richard Neutra's Corona Bell Elementary School and Ralph Waldo Emerson High School, both located in Los Angeles. Both of Neutra's designs created an integration of indoor and outdoor spaces, providing light, ventilation, and a sense of freedom within the classroom. Another highly influential school type developed during this period was the finger-plan, created by the firm of Franklin & Kump for Acalanes Union High School outside of San Francisco. The finger-plan, based in modular elements, became popular in the Postwar years for its easy construction and expansion. Additionally, this plan type provided excellent natural light, ventilation, and access to outdoor spaces for students.

This kind of experimentation in school architecture, which didn't take a firm hold until after the end of World War II, was partly possibly due to the Long Beach Earthquake in March of 1933. The 6.5 magnitude quake destroyed 40 unreinforced masonry schools within the Los Angeles City School District, and damaged many exterior elements on other school facilities. Many parapets, chimneys, and exterior ornaments were removed either due to damage or for fear they would fall. Indeed, the lack of ornament in Southern California architecture in the 20th century was largely due to concerns about applied ornament falling and causing injuries during an earthquake. Shortly after the disaster, the Field Act was passed, which improved the building codes to insure new construction had better resistance to seismic activity. Many of the new requirements were coincidentally in-line with emerging design principles for educational buildings, such as open plans and single-story structures. An insistence on regional appropriateness remained, but ornament, and therefore many revival styles, was no longer a necessary or desirable part of design.

The forces of depression and war also brought funding to the district, with the Public Works Administration (PWA, later the Works Progress Administration) providing \$13 million for schools in Southern California. The PWA funded 70% of all newly constructed schools nationwide in the 1930s. Monetary restrictions only encouraged the move away from the ornate Beaux-Arts Classicism and revival styles, and the PWA building efforts ushered in the era of the Streamline Moderne. World War II saw a restriction in building funds, but school were utilized for a variety of support activities. Among these was the National Defense Training (NDT) program, which pumped \$400,000 into Los Angeles schools for vocational training related to the war effort. By 1942, Los Angeles had the largest NDT program in the country. A year after the war concluded a \$75 million bond was issued, helping to facilitate a Postwar boom in Los Angeles school construction (Sapphos Environmental, Inc., 2014).

History of Burroughs Middle School

The following excerpt is from the Character-Defining Features Memorandum (CDFM) for Burroughs MS prepared by PCR Services Corporation (PCR) in 2015:

The original plans for John Burroughs MS (formerly Wilshire Junior High School) were drawn up by architect E.H. Cline in 1923. The original school plant was constructed in the northwest corner of the school property, at the corner of Sixth Street and what is now South McCadden Place. The

Administration and Auditorium Building (Building 1) fronts McCadden Place and the Shop and Cafeteria Building (demolished) behind to the east. By 1925 the school was officially John Burroughs Junior High School. That year architect Francis J. Catton designed a Classroom Building (Building 7), Boy's Gymnasium (Building 2), and Shop Building (Building 9) for the campus. A Glass House (demolished) was erected in 1927.

Following the Long Beach Earthquake, reconstruction work was completed on the Main Building & Auditorium (Building 1), as well as the Shop Building (Building 9). A Music Bungalow was constructed in 1939, followed by a new Lunch Pavilion (Building 20) in 1940. Alterations were made to the Cafeteria (demolished) and Home Economics Building (demolished) in 1949, with further alterations to the Cafeteria (demolished) occurring in 1950 as well. In 1952, the Main Building & Auditorium (Building 1) also underwent alterations for the creation of an Arts & Crafts Room. The arcade of the school campus connecting Buildings 1 and 7 was enclosed in 1956. The Multi-Purpose Building (Building 14) was erected in 1957, the same year that alterations were made to the Boys' Gymnasium (Building 2). Alterations to the Shop Building (Building 9) occurred in 1960. The Classroom Building (Building 7) was structurally strengthened and modernized in 1964.

Several buildings were demolished and replaced in the latter portion of the 20th century, while other existing buildings were altered to accommodate modern needs. The Girls' Physical Education Building came down in 1971. The Cafeteria and Home Economics Buildings underwent corrective work to strengthen their wood frames in 1971, only to be torn down two years later. A new Cafeteria/Classroom Building (Building 20) was designed in 1976, as was a new Girls Locker/Shower Building (Building 17). Seismic upgrade of the Main and Auditorium Building (Building 1) was undertaken in 1987, also included as part of this project was a new elevator on the rear façade and reconfiguration of classrooms.

3.3.2 Regulatory Setting

State

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at *Public Resources Code (PRC) Section 21000 et seq.* CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. An archaeological resource may qualify as an "historical resource" under CEQA. The *CEQA Guidelines* (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the

whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the *CEQA Guidelines* apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (*CEQA Guidelines* Sections 15064.5(b)(1), 15064.5(b)(4)).

If an archaeological site does not meet the criteria for a historical resource contained in the *CEQA Guidelines*, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in Section 21083.2 of CEQA a “unique” archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (*CEQA Guidelines* Section 15064.5(c)(4)).

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5(a). Substantial adverse change is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired” (*CEQA Guidelines* Section 15064.5(b)(1)). According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

Paleontological Resources

The CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations, Section 15000 *et seq.*), define the procedures, types of activities, individuals, and public agencies required to comply with CEQA. As part of CEQA's Initial Study process, one of the questions that must be answered by the lead agency relates to paleontological resources: "Will the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (CEQA Guidelines Section 15023, Appendix G, Section XIV, Part a).

The loss of any identifiable fossil that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts to paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information (significant impact). At the project-specific level, direct impacts can be mitigated to a less than significant level through the implementation of paleontological mitigation.

The CEQA threshold of significance for a significant impact to paleontological resources is reached when a project is determined to "directly or indirectly destroy a significant paleontological resource or unique geologic feature." In general, for projects that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For projects that are directly underlain by geologic units with no paleontological sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units which underlie the non-sensitive unit are also affected.

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based upon the National Register of Historic Places (National Register) criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the California Office of Historic Preservation (OHP) and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,

- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the California Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

California Public Resources Code Section 5097.98

California PRC Section 5097.98, as amended by AB 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Public Resources Code Section 5097.5 and Section 30244

Other state requirements for paleontological resource management are included in PRC Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, district) lands.

Local

City of Los Angeles General Plan

The City of Los Angeles General Plan (adopted 2001) states as its objective, to “protect the city’s archaeological and paleontological resources for historical, cultural, research, and/or educational purposes” by continuing “to identify and protect significant archaeological and paleontological resources known to exist or that are identified during land development, demolition, or property modification activities.”

In addition, the City will:

continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities...The city's environmental guidelines require the applicant to secure services of a bona fide archaeologist to monitor excavations or other subsurface activities associated with a development project in which all or a portion is deemed to be of archaeological significance. Discovery of archaeological materials may temporarily halt the project until the site has been assessed, potential impacts evaluated and, if deemed appropriate, the resources protected, documented and/or removed (City of Los Angeles, 2001).

The General Plan also contains the following statement regarding paleontological resources:

Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bona fide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. If significant paleontological resources are uncovered during project execution, authorities are to be notified and the designated paleontologist may order excavations stopped, within reasonable time limits, to enable assessment, removal or protection of the resources. For Los Angeles city and county, the Los Angeles County Museum of Natural History, including the George C. Page Museum, provides advice concerning paleontological resources.

In addition, the Los Angeles Municipal Code (LAMC) Section 91.106.4.5 states that the Building Department “shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated” by a federal, state, or local authority.

LAUSD

The SUP Program EIR was certified by LAUSD on November 10, 2015.¹ The overall purpose of the EIR was to inform LAUSD (lead agency), responsible agencies, decision makers, and the general public of the potential environmental effects from implementation of the SUP, and to streamline future CEQA compliance. The SUP Program EIR included Standard Conditions to provide sufficient performance standards for future projects to reduce environmental impacts. The following Standard Conditions are applicable to historical, archaeological, and paleontological resources.

¹ LAUSD. 2015. School Upgrade Program Final Environmental Impact Report, <http://achieve.lausd.net/ceqa>. Adopted by the Board of Education on November 10, 2015.

**TABLE 3.3-1
SUP PROGRAM EIR – APPLICABLE CULTURAL RESOURCES STANDARD CONDITIONS**

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-CUL-1	Historic Architect	Direct or indirect effect on historical resources (i.e., buildings, structures, historic districts, and contributing site plan and landscaping features that are either designated or eligible for local, state, or federal landmark listing)	During project design, pre-construction and construction (Planning, Construction)	<p>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

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<p>design and implementation of projects comply with the applicable historic preservation standards.</p> <ul style="list-style-type: none"> 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.
SC-CUL-2	Design Guidelines and Treatment Approaches	Direct or indirect effect on historical resources	<p>During project design, design development, pre-construction and construction</p> <p>(Planning, Construction)</p>	<p>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.

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<ul style="list-style-type: none"> 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>
SC-CUL-3	Temporary Protection Plan	Demolition near or potential damage to historic resources	Prior to demolition or major alteration (Planning, Pre-Construction, Construction)	<p>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>
SC-CUL-4	Documentation of Historic Resources	Demolition or potential damage to any historic resources	Prior to demolition or major alteration (Planning, Construction)	<p>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>

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<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"> <p>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.</p> <p>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> <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>
SC-CUL-5	Salvage and Reuse of Historical Resources	Demolition of historic resource	Prior to demolition or alteration (Construction)	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.

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-CUL-6	Archaeological Resource	Project area is deemed highly sensitive for archaeological resources or Phase I Archaeological Site Investigation shows a strong possibility that unique archeological resources are buried on the site	Prior to and during ground-disturbing activities (Construction)	<p>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>
SC-CUL-7	Archaeological Resources	(1) Historic or unique archaeological resources are discovered, or (2) when unique archaeological resources have been identified on a site, but LAUSD does not implement a Phase III Data Recovery / Mitigation Program	During ground-disturbing activities (Construction)	<p>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

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<ul style="list-style-type: none"> o Location of areas to be monitored o Types of artifacts anticipated o 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 o Procedures for maintenance of monitoring logs, recovery, analysis, treatment, and curation of significant resources o 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. o Accommodation and procedures for Native American monitors, if required. o Procedures for discovery of Native American cultural resources. <p>The construction manager shall adhere to the stipulations of the Archaeological Monitoring Plan.</p>
SC-CUL-8	Archaeological Resource Training	Project construction requires archaeological monitoring	<p>Prior to the start grading, excavation, or other ground-disturbing activities</p> <p>(Construction)</p>	<p>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>
SC-CUL-9	Archaeological Resources Recovery/Mitigation Program	Archaeological resources are discovered and it is determined not to avoid them by abandoning the site or redesigning the project	<p>During ground-disturbing activities</p> <p>(Construction)</p>	<p>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>

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-CUL-10	Native American Resources	Evidence of Native American resources is uncovered	During ground-disturbing activities (Construction)	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.
SC-CUL-11	Paleontological Resources	Project area is identified as sensitive for paleontological resources	During ground-disturbing activities (Construction)	<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.
SC-N-7	Vibration (Structural Damage)	Vibration intensive activities are planned within 25 feet of a historic building or structure	Prior to and during construction (Construction)	<p>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

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<p>impacting operation associated with demolition and construction.</p> <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>

Society for Vertebrate Paleontology Professional Standards

The Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP’s assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

As defined by the SVP (2010: 11), significant nonrenewable paleontological resources are:

fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

As defined by the SVP (1995:26), significant fossiliferous deposits are:

a rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (icbnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information).

Based on the significance definitions of the SVP (1995, 2010), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

A geologic unit known to contain significant fossils is considered “sensitive” to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either directly or indirectly disturb or destroy fossil remains. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case (SVP, 1995).

Fossils are contained within surficial sediments or bedrock, and are therefore not observable or detectable unless exposed by erosion or human activity. In summary, paleontologists cannot know either the quality or quantity of fossils prior to natural erosion or human-caused exposure. As a result, even in the absence of surface fossils, it is necessary to assess the sensitivity of rock units based on their known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside of the study area), a similar geologic unit, or based on whether the unit in question was deposited in a type of environment that is known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if these remains are significant, successful mitigation and salvage efforts may be undertaken in order to prevent adverse impacts to these resources.

Paleontological Sensitivity

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its “Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Paleontologic Resources,” the SVP (2010: 1-2) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential:

High Potential. Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rock units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e. g., ashes or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Low Potential. Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

Undetermined Potential. Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

No Potential. Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

For geologic units with high potential, full-time monitoring is generally recommended during any project-related ground disturbance (SVP, 2010). For geologic units with low potential, full-time monitoring would not generally be required. For geologic units with undetermined potential, field surveys by a qualified vertebrate paleontologist should be conducted to specifically determine the paleontologic potential of the rock units present within the project area.

3.3.3 Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, the proposed Project could have a potentially significant impact with respect to Cultural Resources if it would:

-
- a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 (see Impact 3.3-1, below);
 - b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 (see Impact 3.3-2, below);
 - c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (see Impact 3.3-3, below); or
 - d) Disturb any human remains, including those interred outside of dedicated cemeteries people (see Initial Study section 4.5 in Appendix A of this Draft EIR).
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CEQA provides that a project may cause a significant environmental effect where the project could result in a substantial adverse change in the significance of a historical resource (Public Resources Code, Section 21084.1). CEQA Guidelines Section 15064.5 defines a “substantial adverse change” in the significance of a historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be “materially impaired” (CEQA Guidelines Section 15064.5(b)(1)). Per CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.
- CEQA also provides that a project may cause a significant environmental effect where the project could result in damage to or destroy unique archaeological resources, unique paleontological resource or site or unique geologic feature, or human remains. Typically, impacts to unique archaeological resources can be mitigated to less-than-significant level through data recovery excavations. CEQA provides that excavation as mitigation shall be limited to those parts of the unique archaeological resource that would be damaged or destroyed by the project (Public Resources Code Section 21083.2(d)) and sets limits on the dollar amount required of an applicant to mitigate impacts (Public Resources Code Section 21083.2(e)). Under CEQA, documentation and recovery of the scientific information contained in “significant” fossils (i.e., fossils that are unique, unusual, rare, uncommon, or diagnostically important) is considered to reduce the impact to paleontological resources to less than significant. CEQA Guidelines Section 15064.5(e) indicates that in the event of human remains discoveries, the county coroner shall be contacted and the provisions of Public Resources Code Section 5097.98 shall be followed to mitigate impacts.

3.3.4 Methodology

To evaluate the proposed Project’s potential effects on significant cultural resources, a cultural resources assessment of the Project site was conducted, which included records searches conducted at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) and the Natural History Museum of Los Angeles County (LACM); archival research consisting of historic map review, paleontological resources literature review, and a geotechnical investigation review; and a review of the Sacred Lands File (SLF) at the Native American Heritage Commission (NAHC). The *Los Angeles Unified School District: Historic Context Statement, 1870 to 1969*, California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory (HRI) listings were reviewed for historic properties within or adjacent to the project site. Because the proposed Project site is fully developed and no natural ground surface exposures exist, an archaeological and paleontological resources survey was not conducted.

SCCIC Records Search

A records search for the proposed Project was conducted on December 6, 2017 at the SCCIC housed at California State University, Fullerton. The records search included a review of all recorded archaeological resources within a ½-mile radius of the Project site, historic resources within ¼-mile radius of the Project site, as well as a review of cultural resource reports on file. The records search

indicates that 22 cultural resources studies have been conducted within a ½-mile of the proposed Project (Table 3.3-2). Less than 25 percent of the ½-mile records search area has been included in previous studies. Of the 22 studies, one covered a portion of the proposed Project site. However, this study (LA-08020) consisted of conducting archival research and a historical resources survey for the Los Angeles Rail Rapid Transit Project and did not address archaeological resources. No archaeological surveys have covered the proposed project.² There are no listed historic resources within a ¼-mile of the Project site.

**TABLE 3.3-2
 PREVIOUS CULTURAL RESOURCES INVESTIGATIONS**

Author	SCCIC# (LA-)	Title	Year
Anonymous	01578	<i>Technical Report Archaeological Resources Los Angeles Rapid Rail Transit Project Draft Environmental Impact Statement and Environmental Impact Report</i>	1983
Bissell, Ronald M.	01968	<i>Cultural Resources Literature Review of Metro Rail Red Line Western Extension Alternatives, Los, Angeles, Los Angeles County, California</i>	1989
Cooley, Theodore G.	01973	<i>Draft Environmental Impact Statement for US Army Corps of Engineers Regulatory Permit Under Section 404 of the Clean Water Act</i>	1990
Anonymous	03496	<i>Draft Environmental Impact Report Transit Corridor Specific Plan Park Mile Specific Plan Amendments</i>	1985
Duke, Curt	05082	<i>Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, Ca</i>	1999
Dooley, Colleen	05326	<i>Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 010-02, in the County of Los Angeles, California</i>	2000
Duke, Curt	05333	<i>Cultural Resource Assessment for the AT & T Wireless Services Facility Number R137.1, County of Los Angeles, California</i>	2000
Mason, Roger D.	06401	<i>Cultural Resources Record Search and Literature Review Report for a Verizon Wireless Telecommunications Facility; Cell Site Mid-Wilshire (99900155): in the City of Los Angeles, Los Angeles County, California</i>	2001
Mason, Roger D.	06445	<i>Proposed Verizon Wireless Facility: Mid-Wilshire (99900155) in the City and County of Los Angeles, California</i>	2001
Duke, Curt	06462	<i>Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, California</i>	1999
Greenwood, Roberta S.	07562	<i>Additional Information for Dseis, Core Study Alignments 1, 2, 3, 4, and 5</i>	1987
Unknown	07565	<i>Technical Report Archaeology Los Angeles Rail Rapid Transit Project "Metro Rail" Core Study, Candidate Alignments 1 to 5</i>	1987
Hatheway, Roger G., and Kevin J. Peter	07566	<i>Technical Report Dseis, Core Study Alignments 1, 2, 3, 4, and 5</i>	1987
Bonner, Wayne H.	07736	<i>Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate EI-0092-02 (sbc Switch La Brea), 654 South La Brea Boulevard, Los Angeles, Los Angeles County, California</i>	2006
Anonymous	08020	<i>Technical Report: Cultural Resources Los Angeles Rail Rapid Transit Project "metro Rail" Core Study</i>	1987

² It should be noted that three studies (LA-07562, -07565, and -07566) are plotted on SCCIC maps as occurring within the proposed Project site. However, a review of these studies, which pertain to cultural resource investigations for the Los Angeles Rail Rapid Transit Project ("Metro Rail") and the Dseis Core Study Alignments Project (also related to the "Metro Rail") shows that they are incorrectly mapped at the SCCIC and do not occur with the proposed Project site.

The records search results indicate that no archaeological resources have been previously recorded within the ½-mile radius or within the Project site.

LACM Paleontological Records Search

A paleontological records search was conducted by the LACM on December 11, 2017. The results indicate that no fossil localities are known from within the proposed Project site, but that there are localities close by from the same sedimentary deposits that occur within the Project site.

According to the LACM, surface deposits on the southeastern portion of the Project site are made up of younger Quaternary Alluvium, which are derived from a drainage that is located in that portion of the Project site. Surface deposits in the rest of the Project site consist of older Quaternary Alluvium, derived as alluvial fan deposits from the Hollywood Hills located to the north. The LACM has also stated that at “relatively shallow depth in this area significant fossil vertebrate remains are found in these deposits” (McLeod, 2017).

The closest vertebrate fossil locality from older Quaternary Alluvium deposits is LACM 1198, located approximately .10 miles south of the Project site (near the intersection of 8th Street and Tremaine Avenue), which produced a fossil specimen of mastodon (*Mammuth*) at a depth of 17 feet below ground surface. LACM 5599, located approximately .35 miles southwest of the Project site (near the intersection of Longwood Avenue and Olympic Boulevard), yielded a fossil camel (*Camelops*) at a depth of 12 feet below ground surface. LACM 1814, located approximately .62 miles southwest of the Project site (near the intersection of La Brea Avenue and Sycamore Avenue) produced a specimen of fossil bovid (*Preptoceras sinclairi*) at a depth of 2 feet below ground surface. Additionally, LACM 1814 consists of asphaltic sands, like those of the La Brea Tar Pits to the west of the Project site in Hancock Park.

The LACM has reported that excavations of older Quaternary Alluvium deposits throughout the Project site could yield vertebrate fossil remains and that any substantial excavations should be closely monitored (McLeod, 2017).

Archival Research

Historic Map Review

Historic maps were examined to provide historical information about the proposed Project site and vicinity, and to contribute to an assessment of the proposed project’s archaeological sensitivity. Available historic topographic maps include: 1894 Los Angeles 15-minute topographic quadrangle; 1896, 1898, 1900, and 1902 Santa Monica 15-minute quadrangles; 1921 Santa Monica 15-minute topographic quadrangle; 1924, 1926, 1953, 1966, 1972, 1981, and 1991 Hollywood 7.5-minute topographic quadrangles (Worley Parsons, 2016). Sanborn Fire Insurance maps are available for the years 1926, 1950, and 1969 (Worley Parsons, 2016). Historical aerial photographs for the years 1926, 1948, 1952, 1964, and 1972 were reviewed as well as Google Earth aerial imagery from December 2017.

The review of topographic maps indicates that from 1894 through 1902, a small building was located on the southern portion of the Project site and that an unnamed tributary of Ballona Creek followed a

northeast to southwest direction across the western portion of the Project site. By 1921, the Project site appears to have been undeveloped. By 1924 and 1926, a school is depicted within the northwest portion of the Project site and residential development appears in the immediate vicinity. From 1953 through 1991, the Project site was occupied by the John Burroughs Junior High School, which was comprised of multiple buildings.

Review of the 1926 Sanborn map also indicates that the northern portion of the Project site was developed as the John Burroughs Junior High School, which consisted of six buildings including a large building with an auditorium, classrooms with restrooms, a gymnasium, a dressing room, and an auto repair and wood working shop. Review of the 1950 Sanborn map indicates that additional buildings had been added to the school by that date, including a music room, a greenhouse building, a girl's gymnasium, and two small structures (one north of a lunch shelter and the other east of the auto repair and wood working shop). Review of the 1969 Sanborn map indicates that by this time, several buildings (including a greenhouse building, music room, lathe building, and the two small structures) had been removed. Two new classroom buildings, a new music room building, and three small storage sheds had been added.

Paleontological Resources Literature Review

A desktop review was conducted to assess the potential of the geologic units in the Project site to preserve fossil resources. The surficial geology of the Project site has been mapped by Dibblee and Ehrenspeck (1991) at a scale of 1:24,000. The Project site consists of younger Quaternary Alluvium (Qa) in the southeastern area and older Quaternary Alluvium (Qae) across the remainder of the site. These units are discussed in detail below.

Younger Quaternary Alluvium (Qa). These sediments date to the Holocene (up to 10,000 years old) and consist of alluvial clay, sand, and gravel deposited by minor stream flow (Dibblee and Ehrenspeck, 1991). While these sediments are too young in the surficial and upper layers to preserve fossil resources (under 5,000 years old, per the SVP, 2010), they increase in age with depth and therefore may preserve fossils in deeper layers. Therefore, this unit has **low-to-high paleontological sensitivity**, depending on depth. While the exact depth at which this transition occurs is not known in the Project site, elsewhere in the Los Angeles Basin fossils have been found in layers of younger Quaternary Alluvium at depths of 10-15 feet below ground surface (Jefferson, 1991 a, b).

Older Quaternary Alluvium. These sediments date to the Pleistocene (over 10,000 years old) and are similar in lithology to the younger Quaternary Alluvium described above (Dibblee and Ehrenspeck, 1991). These Pleistocene sediments have a rich fossil history in southern California (Jefferson, 1991a and b; Miller, 1971; Scott, 2010). The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, bison, deer, and small mammals, but other taxa, including horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported (Jefferson, 1991 a and b; Graham and Lundelius, 1994). In addition to illuminating the striking differences between Southern California in the Pleistocene versus today, this abundant fossil record has been vital in studies of extinction (e.g. Sandom et al., 2014; Scott, 2010), ecology (e.g. Connin et al., 1998), and climate change (e.g. Roy et al., 1996). Due to the rich fossil history of these sediments throughout the Los Angeles Basin and Southern California, they have **high paleontological sensitivity**.

It should be noted that while the geotechnical study discussed below did not identify asphaltic sands in the subsurface of the Project site, the proximity of the Project site to the La Brea Tar Pits (one mile to the west) and fossil locality LACM 1814 (0.62 miles to the southwest), indicates that asphaltic sands may be encountered during construction. As discussed above, the La Brea Tar Pits deposits have preserved millions of fossils at the La Brea Tar Pits, and have **high paleontological sensitivity**.

Geotechnical Investigation Review

A report prepared by Amec Foster Wheeler (2015) detailing the results of a geotechnical investigation for the proposed Project was reviewed. Two geotechnical borings were drilled to depths of 50 feet below the existing ground surface to evaluate the underlying soil conditions of the Project site.

Review of the boring logs and Plot Plan indicates that Boring 1 was drilled in the center portion of the Project site and that fill soils (consisting of sandy silt and sandy clay with some brick fragments³) were encountered down to 11 feet in thickness. The boring logs and Plot Plan indicate that Boring 2 was drilled in the northeastern portion of the Project site and that fill soils (made up of sandy lean clay) were encountered down to 3 feet in thickness. Amec Foster Wheeler (2015) has also indicated that previous investigations conducted by them throughout different portions of the Project site encountered fill soils with significant amount of debris. Previous borings near Boring 1 also encountered petroleum-soaked fill soils. The fill soils are underlain by Holocene to Pleistocene-age alluvial deposits, which generally consist of “interbedded and interfingered sand, silt, and clay” (Amec Foster Wheeler, 2015).

Sacred Lands File Search

The NAHC maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on November 27, 2017 to request a search of the SLF. The NAHC responded to the request in a letter dated November 29, 2017. The SLF yielded negative results; however, the NAHC noted that the negative results of the SLF search do not preclude the existence of Native American resources within the Project site (Quinn, 2017).

3.3.5 Impact Analysis

Historical Resources

Impact 3.3-1 Could the Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Direct

Burroughs MS was determined individually eligible for inclusion in the National and California registers because it embodies the distinctive characteristics of the Italian Renaissance Revival style of academic

³ Brick fragments are debris which may indicate the presence of subsurface historic-period archaeological deposits.

architecture (Criterion C). Burroughs MS retains integrity of setting, design, materials, workmanship, location, feeling, and association from its period of significance (1923-1935).

Through subsequent analysis, the Campus has been identified as the Burroughs MS Historic District (Historic District). The Administrative/Auditorium Building (Building 1), Boys' Gymnasium Building (Building 2), Classroom Building (Building 7), and Shop Building (Building 9) were determined to be contributors to the Historic District, as well as the majority of the related landscape elements fronting McCadden Place and 6th Street.

The proposed Project would include renovations, modernizations and seismic upgrades, and new construction on the Campus, in addition to the demolition of several non-contributing buildings. The proposed Project would include alterations to the four contributing buildings.

The incorporation of SC-CUL-1 and SC-CUL-2 would require the rehabilitation (to the extent feasible) of the majority of the contributing buildings and landscape features in conformance with the SOI Standards for Rehabilitation (SOI Standards), LAUSD Design Guidelines and Treatment Approaches for Historic Schools, and LAUSD's requirements and guidelines for the treatment of historical resources under the guidance of a qualified Historic Architect. The proposed renovations would substantially conform with the SOI Standards, the buildings and landscape would retain integrity, and Burroughs MS would remain eligible for listing on the National and California registers.

The Administrative/Auditorium Building (Building 1) and Classroom Building (Building 7) are the most architecturally distinctive buildings and, along with the associated landscaping, are essential to conveying the significance and historic character of the Historic District. The Boys' Gymnasium Building (Building 2) and the Shop Building (Building 9) were identified in the CDFM as "secondary (contributing)" and are not as visually prominent as those buildings, structures, and landscape features identified in the CDFM as "primary (significant)." All contributing buildings and landscape features would be retained and/or rehabilitated in conformance with the SOI Standards. The Project would retain a majority of the character-defining features (CDFs) that convey the historical and architectural significance of the Historic District, including the contributing buildings' Italianate patterned brick cladding, cast stone ornamentation, gabled and hipped tile roofs, double-hung wood-sash windows and transoms, and original paneled and glazed exterior doors. Retention of these CDFs would preserve the Historic District's integrity of design, materials, workmanship, feeling, and association, thereby ensuring that it maintains its eligibility for listing in the National and California registers.

The Project would result in the construction of two new buildings "A" and "B" on Campus. Building A would be constructed in the location of the "Quad Courtyard" on the interior side of Buildings 1, 2, 7, and 9. Building B would be constructed south of the Administrative/Auditorium Building (Building 1) and Boys' Gymnasium Building (Building 2) where non-contributing Buildings 17 and 20 are currently located. Its design would feature two wings attached by a breezeway/bridge and include 24 classrooms, food services, a student store, a multipurpose room, and boys' and girls' lockers. A freestanding lunch shelter would be constructed directly south of the west wing of Building B. The area south of the new Building B will be developed with a new Athletics Quad consisting of natural turf playing field surrounded by a jogging track and 10 outdoor basketball/volleyball courts. A new surface parking lot with bus drop-off and pick-up would be constructed along Wilshire Boulevard, and

a new surface parking lot would be constructed at the northeast corner of campus with access from West 6th Street. With implementation of SC-CUL-1 and SC-CUL-2, which require the application of the SOI Standards and LAUSD Design Guidelines by a qualified Architectural Historian, the proposed new construction would comply with SOI Standards 9 and 10; would be compatible with the size, scale, and height of the contributing buildings and landscape features; and would not destroy spatial relationships that characterize the Historic District. Additionally, the implementation of SC-N-7 would help to protect historic buildings from construction-related vibration impacts.

Under the CEQA Guidelines, the significance of an historical resource is materially impaired when a project alters in an adverse manner those physical characteristics that account for its eligibility as a historical resource. The Campus is seen as a single historical resource—the Burroughs MS Historic District—with the buildings, structures, and other features, such as landscaping, as either contributing or non-contributing elements, or components, of that historical resource. Therefore, with implementation of SC-CUL-1 through SC-CUL-5, the Historic District would retain sufficient integrity to remain eligible for listing in the National and California registers as the contributing buildings and landscape features would be rehabilitated in conformance to the SOI Standards and new construction would conform to SOI Standards 9 and 10. As designed, and with implementation of SC-CUL-1 through SC-CUL-5, the proposed Project would have a less-than-significant impact on the Historic District. As designed, and with implementation of SC-CUL-1 through SC-CUL-5, the proposed Project would have a less-than-significant impact on the Historic District.

Indirect Impacts

Indirect impacts were analyzed to determine if the proposed Project would result in a substantial material change to the integrity and significance of historical resources and their immediate surroundings within the Project site and the Project vicinity such that their eligibility would be materially impaired. No indirect impacts were identified as there are no historic resources in the immediate vicinity of the proposed Project aside from the Burroughs MS Historic District.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant

Archaeological Resources

Impact 3.3-2 Could the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

No archaeological resources were identified within the Project site, and the Project would not result in an impact to known archaeological resources. However, there is a potential for subsurface archaeological deposits that could be encountered during ground disturbing activity. Archival research indicates that the southern portion of the Project site was developed with a small building as early as

1894. At around this same time, an unnamed tributary/drainage from Ballona Creek is depicted in topographic maps within the western portion of the Project site. Review of the geotechnical report prepared for the proposed Project indicates that fill soils with significant amount of debris (including brick fragments) were encountered in the Project site. Given this, the Project site has the potential to contain historic-period archaeological resources, both those associated with former uses of the property and within the imported fill soils, as indicated by the brick fragment remnants exposed during the geotechnical investigation for the Project. Moreover, the Project site is located in the immediate vicinity of a historical-period thoroughfare, Wilshire Boulevard, and the La Brea Tar Pits (used during prehistoric and ethnographic time periods), located approximately one mile west of the Project site. Specifically, the route of Wilshire Boulevard, located immediately south of the Project site, is known to have been used during prehistoric times by the Gabrielino as a route to the La Brea Tar Pits, an important source of resources. Lastly, the former drainage (composed of Quaternary Alluvium deposits) that once crossed the Project site may have attracted prehistoric and historic period inhabitants to the area. The alluvial deposits associated with the drainage have the potential to contain buried and preserved archaeological sites.

Since the Project includes ground disturbance, previously undocumented archaeological resources could be encountered during construction. If any such resources were found to be significant, the proposed Project could result in a significant impact to archaeological resources pursuant to Section 15064.5. However, with implementation of LAUSD's SC-CUL-6 through SC-CUL-10, impacts would be less than significant. These standard conditions would require the District to retain the services of a qualified archaeologist who would perform cultural resources sensitivity training for construction workers and who would prepare an Archaeological Monitoring Program prior to construction. The Archaeological Monitoring Program would include procedures for the District to follow in the event of a discovery during construction. These procedures include the halting of work in the vicinity of the discovery, an evaluation of the discovery by the qualified archaeologist, the recommendation and implementation of appropriate treatment for the discovery, and a determination as to whether archaeological monitoring of construction activities thereafter is warranted. If the discovery is Native American or prehistoric in nature, then a local Native American representative would assist in determining the appropriate treatment of the discovery. Implementation of these standard conditions would effectively avoid damage to, or loss of, archaeological resources, and little to no residual impact would remain after implementation. With implementation of these standard conditions, potentially significant impacts to archaeological resources would be reduced to a less than significant level.

Mitigation Measures

No mitigation measures are required

Significance after Mitigation

Less than significant

Paleontological Resources

Impact 3.3-3 Could the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No paleontological resources have been identified within the Project site, and the Project would not result in an impact to known paleontological resources. However, background research conducted for the Project indicates that the proposed Project is underlain by Holocene-aged younger Quaternary Alluvium in the southeastern area and Pleistocene-aged older Quaternary Alluvium across the remainder of the site. Younger Quaternary Alluvium has low-to-high paleontological sensitivity, increasing with depth, and is underlain by older Quaternary alluvium. Excavations in the upper levels of these sediments are unlikely to encounter fossil resources, while deeper excavations (estimated at 10 feet or greater in depth) risk disturbing fossil resources. Older Quaternary Alluvium has high paleontological sensitivity. Excavations into this unit at any depth risks disturbing fossil resources. Additionally, the records search from the LACM indicates that one of the nearby fossil localities (LACM 1814, approximately 0.62 miles southwest of the Project site) was preserved in asphaltic sands, which have high paleontological sensitivity and have produced millions of fossils from the La Brea Tar Pits, one mile west of the Project site. Therefore, the proposed Project could result in a significant impact to unique paleontological resources under CEQA. As such, SC-CUL-11 and the associated mitigation measures CUL-1 through -4 would be incorporated to ensure that impacts remain less than significant. These standard conditions would require the District to retain the services of a qualified paleontologist who would perform paleontological resources sensitivity training for construction workers prior to construction and who would conduct paleontological monitoring of construction excavations in undisturbed sediments below 10 feet in depth. These standard conditions also include procedures to follow in the event of a discovery during construction such as the halting of work in the vicinity of the discovery, an evaluation of the discovery by the qualified paleontologist, and the recommendation and implementation of appropriate treatment for the discovery. Implementation of these standard conditions would effectively avoid damage to, or loss of, paleontological resources, and little to no residual impact would remain after implementation. With implementation of these standard conditions, potentially significant impacts to paleontological resources would be reduced to a less than significant level.

Significance Determination

Potentially Significant

Mitigation Measures

Implementation of mitigation measures CUL-1 through -4 would be incorporated to ensure that impacts remain less than significant :

CUL-1: The Qualified Paleontologist shall conduct initial construction worker paleontological resources sensitivity training prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. Subsequent training session may be provided by a paleontological monitor or in a video format. The training session shall focus on the recognition of the types of paleontological resources that could be

encountered within the Project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction personnel attended the training.

CUL-2: Paleontological monitoring of previously undisturbed sediment shall be conducted by a qualified paleontological monitor (SVP, 2010) under the supervision of the Qualified Paleontologist as follows:

- In areas mapped as younger Quaternary Alluvium (Qa), full-time paleontological monitoring shall commence once excavations have exceeded 10 feet in depth. Monitoring is not necessary in shallow excavations (<10 feet) or in artificial fill.
- In areas mapped as older Quaternary Alluvium (Qae), full-time paleontological monitoring shall be conducted for all ground-disturbing activities, regardless of depth. Monitoring is not necessary in artificial fill.

Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort.

CUL-3: If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it should be salvaged following the standards of the SVP (SVP, 2010) and curated with a certified repository.

CUL-4: Should fossils be encountered in asphaltic sands during the course of excavations, the Qualified Paleontologist will contact the paleontological staff of the La Brea Tar Pits & Museum for coordination of excavation and salvage procedures. Any fossil material from asphaltic sands shall be collected and deposited at the La Brea Tar Pits & Museum, with preparation and curation fees to be assessed on a case-by-case basis.

Significance after Mitigation

Implementation of SC-CUL-11 and the associated mitigation measures CUL-1 through -4 would ensure that impacts would be less than significant.

3.3.6 Cumulative Impact Analysis

Historical and Archaeological Resources

As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A project would have a cumulatively considerable impact on cultural resources if it contributes to the cumulative loss of significant historical or archaeological resources.

Historic Resources

The cumulative context for this Project would be this and any future projects on any LAUSD campus that could significantly impact historic resources. Following this Project, there are no known or reasonably foreseeable projects identified for this campus. It would be anticipated that minor maintenance activities may occur on the campus following construction; however, no other projects of the same type or scale are planned for the campus at this time.

The proposed Project substantially complies with the SOI Standards and would have a less-than-significant impact on the Historic District. After Project completion, the Burroughs MS Historic District would remain eligible for listing in the National and California registers. LAUSD has a varied inventory of historic buildings and districts and policies that focus on preservation to the extent feasible while providing the necessary functionality for each of its campuses. While current and future projects could impact historic resources, the Project would preserve enough of the Campus such that its eligibility as a Historic District would be maintained; no significant impact to historic resources would thus result; and the impact would not be cumulatively considerable.

Archaeological Resources

Past urban development that has occurred in the area may have resulted in damage and destruction of archaeological resources. For this reason, the cumulative effects of development to archaeological resources are considered significant. However, CEQA requires that development projects identify the potential for known archaeological resource impacts and further requires that those impacts are mitigated if feasible (CEQA Section 21083.2 and CEQA Guidelines Section 15064.5). While there exists the potential to encounter previously unrecorded archaeological resources, mitigation measures are typically included in environmental documents to prescribe what must occur in the event of an unanticipated discovery to reduce impacts to a less-than-significant level.

As discussed in Impact 3.2-2, no archaeological resources have been identified within the Project site. However, Project-related ground disturbing activities have the potential to impact previously unidentified archaeological resources that could qualify as unique archaeological resources pursuant to CEQA. While there is the potential for impacts to unknown archaeological resources, such as those that might be discovered during ground-disturbing activities during Project construction, compliance with SC-CUL-6 through SC-CUL-10, would ensure that impacts are reduced to a less-than-significant level. These conditions require the District to halt work if any potential resources are discovered during construction. If it is determined that an archaeological resource may be present within the Project site, the District is required to retain the services of a qualified archaeological consultant to evaluate the find. Implementation of these conditions would effectively avoid damage to, or loss of, resources, and

little to no residual impact would remain after implementation. With implementation of these standard conditions, Project impacts on historical and archaeological resources would not be cumulatively considerable. The Project would not have a significant cumulative impact associated with historical and archaeological resources. Therefore, the project's cumulative impact related to historical and archaeological resources would be less than significant.

Mitigation Measures

No mitigation measures are required.

Paleontological Resources

The Project has the potential to disturb geological units that are conducive to retaining paleontological resources in older Quaternary Alluvium deposits. Generally, future development projects with the potential for substantial excavation would be subject to environmental review. If the potential for significant impacts on paleontological resources were identified, regulatory compliance and/or mitigation measures would be required that would reduce the potential for adverse effects on fossil resources individually and cumulatively, and would preserve and maximize the potential of these resources to contribute to the body of scientific knowledge. This would reduce the potential for the individual related projects to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Because of the potential for significant impacts on paleontological resources resulting from the project, implementation of SC-CUL-11 and mitigation measures CUL-1 through -4 are required. Implementation of these measures would reduce the potential for adverse effects on fossil resources individually and cumulatively. The Project, considered together with the related projects, would not result in a cumulatively significant impact related to directly or indirectly destroying a unique paleontological resource or site or unique geologic feature. Project impacts on paleontological resources would not be cumulatively considerable.

Mitigation Measures

Mitigation measures CUL-1 through CUL-4 are required.

3.3.7 References

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3.4 Energy

This section evaluates potential impacts related to energy use by construction and operation of the proposed Project. The analysis addresses the potential for wasteful, inefficient, and unnecessary consumption of energy and potential conflicts with, or obstruction of, a state, or local, plan for renewable energy, or energy efficiency.

Section 21100(b) of the CEQA Guidelines requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize a project's significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, throughout this document.

In accordance with Appendix F of the CEQA Guidelines, which requires an EIR to include a discussion of the potential energy impacts of a proposed project with an emphasis on avoiding, or reducing, inefficient, wasteful, and unnecessary consumption of energy, this EIR includes relevant information and analyses that address the energy implications of the Project. This section represents a summary of the Project's anticipated energy needs, impacts, and conservation measures.

3.4.1 Environmental Setting

Existing Conditions

Electricity

The Los Angeles Department of Water and Power (LADWP) is the utility provider for the City of Los Angeles (City). The annual electricity sale to customers for the 2016-2017 fiscal year was approximately 28,878 million kilowatt hours (kWh) (LADWP, 2017).

Natural Gas

Southern California Gas Company (SoCalGas) is responsible for providing natural gas supply to end-users in the City and is regulated by the California Public Utilities Commission (CPUC) and other state agencies. The annual natural gas sale to customers in 2017 was approximately 301 billion cubic feet (bcf) (311,535 million kilo British thermal units [kBtu]¹) (Sempra, 2017).

Transportation

According to the California Energy Commission (CEC), transportation accounts for nearly 37 percent of California's total energy consumption (CEC, 2016). Based on available fuel consumption data from the United States Energy Information Administration (USEIA), in 2015, California consumed a total

¹ Converted from 301 billion cubic feet and a conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data. See: United States Energy Information Administration, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017, https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed May 2017.

of 342,523 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of approximately 14.4 billion gallons by the transportation sector (EIA, 2015). For diesel, California consumed a total of 80,487 thousand barrels for transportation, which is equivalent to a total annual consumption of approximately 3.4 billion gallons by the transportation sector (EIA, 2016). The existing Burroughs Middle School Campus generates transportation energy demand from vehicles traveling to and from the site. Transportation fuels, primarily gasoline and diesel, would be provided by local, or regional, suppliers and vendors. According to the California Air Resources Board on-road vehicle emissions factor (EMFAC2014) model, the average fuel economy for the fleet-wide mix of vehicles operating in the South Coast Air Basin region is approximately 20.17 miles per gallon for gasoline-fueled vehicles and approximately 7.81 miles per gallon for diesel-fueled vehicles. Gasoline-fueled vehicles account for approximately 96 percent of the total vehicles and diesel-fueled vehicles account for approximately 3.6 percent of the total vehicles. Electric vehicles account for approximately 0.3 percent of the total vehicles.

The vehicles miles traveled (VMT) for the school was not estimated as part of the air quality and greenhouse gas (GHG) assessment conducted for the Project because the existing vehicle miles traveled would not change as a result of the Project.

3.4.2 Regulatory Setting

Federal

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by the United States Environmental Protection Agency (USEPA) and the National Highway Traffic Safety Administration (NHTSA). The Phase 1 standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type (US EPA, 2011). The USEPA and NHTSA are in the process of considering adoption of the Phase 2 standards, which would cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (US EPA, 2016).

State

Senate Bill 1389

Senate Bill (SB) 1389, codified in Public Resources Code (PRC) Sections 25300-25323, requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (PRC Section 25301[a]).

Senate Bill 1078 (Chapter 513, Statutes of 2002) and Senate Bill 107 (Chapter 464, Statutes of 2006) and Executive Order S-14-08

The state of California has adopted standards to increase the percentage that retail sellers of electricity, including investor-owned utilities and community choice aggregators, must provide from renewable

sources. The standards are referred to as the Renewables Portfolio Standard and require 33 percent by 2020 and 50 percent by 2040.

Title 24, Building Standards Code and California Green Building Standards Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. Although the CALGreen Code was adopted as part of the state’s efforts to reduce GHG emissions, the standards have co-benefits of reducing energy consumption from residential and nonresidential buildings subject to the standard.

California Assembly Bill No. 1493 (Chapter 200, Statutes of 2002)

In response to the transportation sector accounting for more than half of California’s carbon dioxide (CO₂) emissions, Assembly Bill (AB) 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009.

Senate Bill 375 (Chapter 728, Statutes of 2008)

SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions and was adopted by the State on September 30, 2008. Under SB 375, the target must be incorporated within that region’s Regional Transportation Plan (RTP), which is used for long-term transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides the local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP, or SCS.

California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted AB 32 (codified in the California HSC, Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. Under HSC Division 25.5, CARB has the primary responsibility for reducing the state’s GHG emissions, however, it also tasked the CEC and the CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197; both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new

climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure that the benefits of state climate policies reach into disadvantaged communities.

CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations

In 2004, the CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In addition to limiting exhaust from idling trucks, CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007 aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower, of older, dirtier engines with newer emission controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.

Local

City of Los Angeles

The City of Los Angeles has incorporated the CALGreen Standards Code, with amendments in its 2017 Los Angeles Green Building Code. The City's ordinance requires applicable projects to comply with specified provisions to reduce energy consumption.

Los Angeles Unified School District Program EIR

The SUP PEIR includes Standard Conditions (SC) for minimizing impacts related to energy demand for future projects implemented under the SUP. Applicable SCs related to energy impacts associated with the proposed Project are provided in **Table 3.4-1, *Standard Conditions of Approval***. Projects implemented under the SUP are anticipated to have less-than-significant and potentially significant impacts related to energy demand within the LAUSD service area with the incorporation of SCs. The Project-specific analysis provided below determined that implementation of the proposed Project would have less-than-significant impacts related to energy demand with the incorporation of SCs.

**TABLE 3.4-1
STANDARD CONDITIONS OF APPROVAL**

Applicable SCs	Description
USS-1	<p>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>
SC-AQ-4	<p>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>Exhaust Emissions</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. • 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 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) 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>Fugitive Dust</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.

Applicable SCs	Description
	<ul style="list-style-type: none"> • 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>General Construction</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. <p>Increase distance between emission sources to reduce near-field emission impacts.</p>
SC-GHG-1	During operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping, and tanks to minimize water loss.
SC-GHG-2	LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the early morning hours to reduce water loss from evaporation.
SC-GHG-3	LAUSD shall reset automatic sprinkler timers to water less during cooler months and rainy season.
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.
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.

3.4.3 Thresholds of Significance

Appendix F of the CEQA Guidelines states that the evaluation of energy use should be evaluated in an EIR and provides guidance for consideration in this evaluation. While Appendix G of the CEQA Guidelines does not provide specific thresholds for the evaluation of impacts related to energy resources, the Office of Planning and Research (OPR) released proposed thresholds in November 2017. Pursuant to the proposed thresholds, the Project would result in a significant impact related to energy if it would:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during Project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.4.4 Methodology

The evaluation of the Project's potential impacts related to energy usage that may result from the construction and long-term operations of the Project has been conducted as described below. Calculations are provided in Appendix D.

Construction

The Project would be constructed in phases with minimal overlapping development activities. Construction is assumed to begin in 2020, pending Project approval and EIR certification, with completion of construction of the Project anticipated by 2025. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the site. Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Energy use during construction is forecasted by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). The energy usage required for Project construction has been estimated based on the number and type of construction equipment that would be used during Project construction, the extent that various equipment is utilized in terms of equipment operating hours, or miles driven, and the estimated duration of construction activities. Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT.

The construction equipment would likely be diesel-fueled (with the exception of construction worker commute vehicles, which would primarily be gasoline-fueled). For the purposes of this assessment, it is conservatively assumed heavy-duty construction equipment and haul trucks would be diesel-fueled. This represents a worst-case scenario intended to represent the maximum potential energy use during construction. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB off-road vehicle (OFFROAD) emissions model, which is a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a state-approved model for estimating emissions for on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into the California Emissions Estimator Model (CalEEMod), which is a state-approved emissions model used for the Project's air quality and GHG emissions assessment. Therefore, this energy assessment is consistent with the modeling approach used for other environmental analyses in the EIR and consistent with general CEQA standards.

Operation

Operation of the Project would require energy in the form of electricity and natural gas for building heating, cooling, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs, and transportation-fuels, primarily gasoline, for vehicles traveling to and from the Project site.

The proposed Project would modify and renovate existing school facilities and the intensity of Project operations would remain the same. The Project would not generate any new vehicle trips and facilities would be upgraded to replace old, energy-inefficient systems. Therefore, a qualitative analysis of operational energy needs is included in this analysis.

Project Sustainability Features

The Project would meet CALGreen Code as adopted and amended by the City of Los Angeles through the incorporation of green building techniques and other sustainability features, including those within the City of Los Angeles Green Building Code, where applicable. Additionally, the Project would be consistent with SCs, listed in Table 3.4-1, implemented by the Program EIR.

3.4.5 Impact Analysis

Energy Demand

Impact 3.4-1: The Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during Project construction, or operation.

Construction Emissions

Electricity

Electrical power would be consumed to construct the Project. The demand would be supplied from existing electrical services at the Project site. Overall, demolition and construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. The City's noise ordinance generally restricts construction during nighttime hours (see Los Angeles Municipal Code (LAMC) Section 41.40), which would minimize the need for nighttime lighting. Therefore, impacts on electricity supply and infrastructure associated with short-term construction activities would be less than significant.

Natural Gas

Natural gas is not expected to be consumed in any substantial quantities during construction of the Project. Therefore, Project impacts on energy and natural gas associated with construction activities would be less than significant.

Transportation Energy

The estimated fuel usage for off-road equipment is based on the number and type of equipment that would be used during construction activities, hour usage estimates, the total duration of construction

activities, and hourly equipment fuel consumption factors from the OFFROAD model. On-road equipment would include trucks to haul material to and from the Project site, vendor trucks to deliver supplies necessary for Project construction, and fuel used for employee commute trips. A summary of the annual fuel consumption during construction of the Project is provided in **Table 3.4-2, Project Construction Fuel Usage**. As shown in Table 3.4-2, on- and off-road vehicles would consume an estimated annual average of 29,576 gallons of diesel fuel and 48,326 gallons of gasoline for each year of Project construction. Compliance with the anti-idling regulation and the use of cleaner construction equipment would reduce the Project’s annual average diesel fuel usage.

**TABLE 3.4-2
PROJECT CONSTRUCTION FUEL USAGE**

Source	Gallons of Diesel Fuel Per Year	Gallons of Gasoline Fuel Per Year
Construction:		
Heavy-Duty Construction Equipment	25,728	—
Haul Trucks	1,298	—
Vendor Trucks	2,550	—
Worker Trips	—	48,326
Annual Average (assuming a 5.5 year construction duration)	29,576	48,326

SOURCE: ESA, 2018.

Construction of the Project would utilize fuel efficient equipment consistent with state and federal regulations, and would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy. While these regulations are intended to reduce construction emissions, compliance with anti-idling and emissions regulations would also result in energy savings from the use of more fuel-efficient engines.

In addition, the Project would implement a construction waste management plan, pursuant to Program EIR SC USS-1, to divert mixed construction and demolition debris to City-certified construction and demolition waste processors. Implementation of the construction waste management plan would reduce truck trips to landfills, which are typically located some distance away from City centers, and increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the available data, construction would utilize energy for necessary on-site activities and to transport construction materials and demolition debris to and from the Project site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and thus minimize the Project’s construction-related energy use. Therefore, construction of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy and impacts would be less than significant.

Operation

Electricity

Operational electricity demand includes electricity required for water supply, conveyance, distribution, and treatment. The proposed Project would replace, or upgrade, facilities on the Burroughs Middle School Campus, resulting in the upgrade, or replacement, of old, energy-inefficient structures that would use less electricity and water. The Project would comply with the applicable provisions of Title 24 and the CALGreen Code. Additionally, the Project would be subject to Program EIR SCs. Therefore, operational demand for electricity resources including for water supply, conveyance, distribution, and treatment would decrease as a result of the proposed Project. As such, the Project would minimize energy demand. Therefore, operation of the Project would not result in the wasteful, inefficient, or unnecessary, consumption of electricity.

Natural Gas

Project operation would require natural gas resources for heating. The proposed Project would replace, or upgrade, facilities on the Burroughs Middle School Campus. As would be the case with electricity, the Project would comply with, or exceed, the applicable provisions of Title 24 and the CALGreen Code to minimize natural gas demand. Additionally, the Project would be subject to Program EIR SCs. As such, the Project would minimize natural gas demand. Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of natural gas.

Transportation Energy

Project operation would require transportation energy such as gasoline. The proposed Project would replace, or upgrade, facilities on the Burroughs Middle School Campus. Implementation of the proposed improvements would not result in increases in student capacity, or staff. As such, no increases in transportation energy demand would occur. Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of transportation fuel and impacts would be less than significant.

Project Consistency with State or Local Plans

Impact 3.4-2: The Project would not conflict with, or obstruct, a state or local plan for renewable energy or energy efficiency.

The Project would comply with applicable CARB regulations restricting the idling of heavy-duty diesel motor vehicles and governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. CARB has adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. The measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. While intended to reduce construction emissions, compliance with the above anti-idling and emissions regulations would also result in energy savings from the use of more fuel efficient engines. According to the CARB staff report that was prepared at the time the anti-idling ATCM was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and nitrogen oxide (NO_x) emissions by 64 and 78 percent

respectively in analysis year 2009 (CARB 2004). These reductions in emissions are directly attributable to overall reduced idling times and the resultant reduced fuel consumption.

CARB has also adopted emissions standards for off-road diesel construction equipment of greater than 25 hp. The emissions standards are referred to as “tiers,” with Tier 4 being the most stringent (i.e., least polluting). The requirements are phased in, with full implementation for large and medium fleets by 2023 and for small fleets by 2028. The Project would accelerate the use of cleaner construction equipment by using mobile off-road construction equipment (wheeled, or tracked) that meets, at a minimum, the Tier 3 off-road emissions standards as specified in SC-AQ-4. Field testing by construction equipment manufacturers has shown that higher tier equipment results in lower fuel consumption. For example, Tier 4 interim engines have shown a 5 percent reduced fuel consumption compared to a Tier 3 engine (Cummins, 2009). Similar reductions in fuel consumption have been shown for Tier 3 engines compared to a Tier 2 engine (John Deere, 2006).

Development of the proposed Project would replace and modernize facilities at Burroughs Middle School, but it would not increase the number of students, or faculty, at the school and therefore, would not increase vehicular fuel use. Additionally, SUP-related projects, including the proposed Project, would comply with the District’s energy efficiency measures. LAUSD’s School Design Guide requires construction contractors to reuse, recycle, and salvage non-hazardous materials generated during demolition and/or new construction, as materials recovery would minimize the need to produce and transport new materials, thereby reducing transportation energy demand from mobile sources (LAUSD, 2015). With respect to all SUP projects, implementation of SCs GHG-1 through GHG-5 would ensure that the proposed Project would not conflict with applicable plans, policies, or regulations, adopted for the purpose of reducing GHG emissions and minimizing energy use. Therefore, with Project implementation and adherence to SCs GHG-1 through GHG-5 and compliance with Title 24, the Project would not conflict with plans, policies, or regulations adopted for the purpose of efficient energy use. Although the Project does not include a photovoltaic system, the roofs of the new buildings will be “solar ready” with conduit pathway and space for future photovoltaic arrays, and Project implementation would not conflict with state, or local, plans to increase renewable energy supply. Therefore, the Project would not conflict with any plans related to energy efficiency, or renewable energy, and impacts would be less than significant.

3.4.6 Cumulative Impact Analysis

Energy Demand

Electricity

Operation of the proposed Project and related projects would require the use of electricity. Like the proposed Project, other future development Projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under Title 24, and incorporate mitigation measures, as necessary. In addition to compliance with existing energy standards, the proposed Project consists of the upgrade and/or replacement of older, energy-inefficient structures on the Burroughs Middle School Campus, resulting in reduced electricity demand as compared to existing conditions. Therefore, the proposed Project would not cause wasteful, inefficient, or unnecessary, consumption of energy and would not be cumulatively considerable.

Natural Gas

Operation of the proposed Project and related projects would require the use of natural gas. Like the proposed Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under Title 24, and incorporate mitigation measures, as necessary. In addition, the proposed Project consists of the upgrade and/or replacement of older, energy-inefficient structures on the Burroughs Middle School Campus, resulting in reduced electricity demand as compared to existing conditions. Therefore, the proposed Project would not cause wasteful, inefficient, or unnecessary, consumption of energy and would not be cumulatively considerable.

Transportation Energy

Construction fuel demand associated with the proposed Project and related projects would be expected to comply with CARB regulations related to idling, engine retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. These measures would result in fuel savings from use of more fuel-efficient engines. Additionally, the proposed Project would utilize Tier 3 equipment at a minimum, which results in a five percent reduction in fuel consumption compared to Tier 2 engines (John Deere, 2006). Therefore, the proposed Project would not cause wasteful, inefficient, or unnecessary, consumption of transportation fuel during construction and would not be cumulatively considerable.

Operation of Burroughs Middle School and related projects would require transportation fuel. Although LAUSD and operators of related projects would not be in control of the year, make, and model of personal vehicles, a fuel efficiency of 54.4 mpg would be required by the year 2025 based on USEPA measurements. The Project consists of the replacement, or upgrade, of existing school facilities on the Burroughs Middle School Campus. Implementation of the proposed Project would not result in greater student capacity, or increased staff. Therefore, operations would not increase and the consumption of transportation energy would not increase. Therefore, the proposed Project would not result in the wasteful, inefficient, or unnecessary, consumption of transportation fuel during operation and would not be cumulatively considerable.

Project Consistency with State or Local Plans

Electricity

The geographic context for the cumulative analysis of electricity is LADWP's service area. Like the proposed Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under Title 24, and incorporate mitigation measures, as necessary. Therefore, the impacts related to consistency with state, or local, plans would not be cumulatively considerable, and thus would be less than significant.

Natural Gas

The geographic context for the cumulative analysis of natural gas consumption is the SoCalGas service area. Like the proposed Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy

standards in Title 24, and incorporate mitigation measures, as necessary. Therefore, the Project would not have a cumulatively considerable impact related to natural gas consumption and impacts would not be cumulatively considerable.

Transportation Energy

Buildout of the Project would not increase overall VMT in the region as the Project would not result in increased employment or enrollment at Burroughs Middle School. Therefore, the proposed Project would not conflict with state, or local, plans related to transportation and VMT and would not be cumulatively considerable.

3.4.7 References

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Duty Engines and Vehicles—Phase 2, October 25, 2016, <https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf>, accessed August 2017.

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3.5 Hazards and Hazardous Materials

This section evaluates the potential for the proposed Project to result in adverse impacts related to hazards and hazardous materials. The information presented below is based in part on the research conducted for the Geotechnical Engineering Evaluation Report,¹ Phase I ESA,² Draft Final Preliminary Environmental Assessment Equivalent Document,^{3,4} and the Removal Action Workplan. The information presented below is also based on maps of the Project area, including reports and information posted on State Water Resources Control Board (SWRCB) Geotracker database and the Department of Toxic Substances Control (DTSC) EnviroStor database. This section includes relevant regulations, and a discussion of the methodology and thresholds used to determine whether the proposed Project would result in significant impacts.

3.5.1 Environmental Setting

Project Site

Historic Site Uses

The following excerpt is from the CDFM for Burroughs MS prepared by PCR Services Corporation (PCR) in 2015⁵:

The original plans for John Burroughs MS (formerly Wilshire Junior High School) were drawn up by architect E.H. Cline in 1923. The original school plant was constructed in the northwest corner of the school property, at the corner of Sixth Street and what is now South McCadden Place. The Administration and Auditorium Building (Building 1) fronts McCadden Place and the Shop and Cafeteria Building (demolished) behind to the east. By 1925 the school was officially John Burroughs Junior High School. That year architect Francis J. Catton designed a Classroom Building (Building 7), Boy's Gymnasium (Building 2), and Shop Building (Building 9) for the campus. A Glass House (demolished) was erected in 1927.

Following the Long Beach Earthquake, reconstruction work was completed on the Main Building & Auditorium (Building 1), as well as the Shop Building (Building 9). A Music Bungalow was constructed in 1939, followed by a new Lunch Pavilion (Building 20) in 1940. Alterations were made to the Cafeteria (demolished) and Home Economics Building (demolished) in 1949, with further alterations to the Cafeteria (demolished) occurring in 1950 as well. In 1952, the Main Building & Auditorium (Building 1) also underwent alterations for the creation of an Arts & Crafts Room. The arcade of the school campus connecting Buildings 1 and 7 was enclosed in 1956. The Multi-Purpose Building (Building 14) was erected in 1957, the same year that alterations were made to the Boys' Gymnasium (Building 2). Alterations to the Shop Building (Building 9) occurred

- ¹ Amec Foster Wheeler, Preliminary Geotechnical Investigation, August 10, 2015. Included in Appendix A of this Draft EIR.
- ² WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR
- ³ Leighton Consulting, Inc., Final Draft Removal Action Workplan. February 8, 2018, and included in Appendix H of this Draft EIR.
- ⁴ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.
- ⁵ PCR Services Corp. "Character-Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California, 90005." July 28, 2015.

in 1960. The Classroom Building (Building 7) was structurally strengthened and modernized in 1964.

Several buildings were demolished and replaced in the latter portion of the 20th century, while other existing buildings were altered to accommodate modern needs. The Girls' Physical Education Building came down in 1971. The Cafeteria and Home Economics Buildings underwent corrective work to strengthen their wood frames in 1971, only to be torn down two years later. A new Cafeteria/Classroom Building (Building 20) was designed in 1976, as was a new Girls Locker/Shower Building (Building 17). Seismic upgrade of the Main and Auditorium Building (Building 1) was undertaken in 1987, also included as part of this project was a new elevator on the rear façade and reconfiguration of classrooms.

No evidence was found regarding current and/or past underground storage tanks onsite.

Current Project Site Conditions

The Project site is currently developed with the existing Burroughs MS Campus. The majority of the Campus is paved and currently developed with three two-story administrative/classroom buildings, 23 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges, and storage rooms. Two paved parking areas are located in the northeast corner and the southwest corner of the Campus. Two tennis courts are located in the center of the Campus. A paved and dirt playground area is located in the southern portion of the Campus.

The Project site's elevation is about 213 feet above mean sea level (amsl) with topography sloping to the south-southwest. As the Project site is currently developed and/or paved, it is primarily impervious. The Project site is underlain by recent artificial fill to depths of up to 27 feet consisting of sandy silt, sandy clay, and silty clay. Beneath the fill Holocene- to Pleistocene-age alluvial deposits are encountered and consist of interbedded and interfingering sand, silt, and clay. Given that the upper soils consist of predominately clayey soils, which are very impervious, infiltration of water into these soils will be very difficult.

Groundwater

Regional

The Project site is located within the Coastal Plain of Los Angeles Groundwater Basin - Central Basin (Basin). The Basin covers an area of 277 square miles in the southeastern part of the Coastal Plain of the Los Angeles groundwater basin. The Central Basin is bounded to the north by a surface divide known as the La Brea high, on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced, and Puente Hills. The boundary between the Central Basin and Orange County Groundwater Basin roughly follows Coyote Creek, along the southeast side of the Basin. The southwest boundary is formed by the Newport Inglewood fault system. Groundwater occurs in Holocene and Pleistocene age sediments at relatively shallow depths. The main productive freshwater-bearing sediments are contained within Holocene alluvium and Pleistocene Lakewood and San Pedro Formations. Groundwater flows southwestward from recharge areas in the northeast towards the

Pacific Ocean, although groundwater pumping has decreased subsurface outflow to the West Coast Subbasin. Folding, faulting, and uplift throughout the Central Basin create restrictive structures.⁶

Project Site Groundwater Conditions

The California Geological Survey estimates the historical high groundwater level in the site vicinity to be between 10 and 20 feet beneath the existing ground surface (bgs). Water level measurements for Los Angeles County Well No. 2642M located 1.4 miles northwest of the Project site, indicates depth to groundwater was 13.2 feet bgs on September 18, 2012. Groundwater was encountered at depths at 28 and 33 feet below the existing grade.⁷

Hazardous Materials Database Listings

Project Site

A review of databases and files from federal, state, and local environmental regulatory agencies was conducted to identify use, generation, storage, treatment or disposal of hazardous materials and chemicals, or release incidents hazardous materials which may impact the Project site. The databases searched and the findings regarding the Project site and adjacent properties are presented below. The complete results of the database search, including a list of the databases searched and the Radius Map with GeoCheck that maps the location of each of the database listings, are included as Appendix B of the Phase I ESA (see Appendix F of this Draft EIR).

The Project site was listed on the California Emissions Inventory Data list (CA EMI) database as Burroughs Middle School at 600 South McCadden Place. The listing indicates that air emissions were regulated at the Project site. In 1990, no emissions were released or documented at the Project site. The Project site was also listed on the DTSC HazNet database as Burroughs Middle School at 600 South McCadden Plane. The listing indicates that DTSC has received hazardous waste manifests relating to the Project site and identify the nature of waste management, generation, and disposal for hazardous materials present on the Project site.

Adjacent and Nearby Properties

There are 24 sites adjoining or immediately surrounding the Project site that are listed on federal, and/or local regulatory agency databases. However, none of the listed sites are currently listed as open.

From around 1938 to at least 1964, two gasoline service stations were located west of the southern portion of the Campus (approximately 60 feet and 250 feet west of the Campus and cross/upgradient with respect to the groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and the northeast corner of South Highland Avenue and Wilshire Boulevard. Based on their upgradient location relative to the reported groundwater flow direction and their proximity to the Campus, these former service stations were determined to constitute recognized environmental concerns (RECs).

⁶ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016. Included in Appendix F of this Draft EIR

⁷ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016. Included in Appendix F of this Draft EIR

Preliminary Environmental Assessment Equivalent and Removal Action Work Plan Documents: Potentially Hazardous Materials Investigated on the Project Site

A PEA-E prepared for the Project site further investigates the RECs related to the current and previous uses on the Project site. The PEA-E investigation consisted of an extensive soil and soil gas sampling program to investigate the RECs and contaminants of concern (COCs) identified in the Phase 1 ESA. Soil sampling was designed to evaluate overall Project site health risk and assessed lead, arsenic, organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAH's), and CA Title 22 Metals (CAM-17). Additionally, this PEA-E included a survey to screen for methane in soil gas.

The PEA-E sampling program consisted of shallow soil sampling in the areas of existing buildings, common areas, athletic fields, and parking lots planned for removal/replacement and construction, and soil gas sampling was conducted across the entire site to evaluate for the potential presence of subsurface methane.

The decision criteria for determining whether analysis of deeper soil samples from a specific boring or collection of boring samples was warranted is outlined below:

- Arsenic soil samples were screened utilizing the accepted background concentration of 12 milligrams per kilogram (mg/kg);
- Lead soil samples were screened utilizing the DTSC Residential Screening Level of 80 mg/kg;
- Petroleum hydrocarbons were screened using 100 mg/kg for gasoline-range hydrocarbons (TPHG), 1,000 mg/kg for diesel-range hydrocarbons (TPH-D), and 1,000 mg/kg for oil-range hydrocarbons (TPH-O);
- Volatile organic compounds (VOCs) were screened utilizing a combination of Regional Screening Levels (RSLs) and human health-based screening criteria based on the individual chemical or compound;
- PCBs were screened utilizing the RSLs for Residential Land Use (value varies by PCB constituent); and
- OCPs were screened utilizing the RSLs for Residential Land Use (value varies by OCP constituent).

Initial PEA investigation activities were conducted in October 2016, and field sampling activities included the following:

- collection of 632 shallow soil samples at a total of 190 locations across the site;
- installation of nested, multi-depth soil gas probes at 30 locations to evaluate subsurface methane, TPH, and VOC concentrations.

Hazardous Materials

Petroleum Hydrocarbons

Due to current site uses, small quantities of various hazardous substances and petroleum products are stored onsite. Site reconnaissance activities associated with the Phase 1 ESA observed a fenced area

containing two compressed gas cylinders and an idle generator, located adjacent to the southern portion of Building 1 (Administrative/Auditorium Building). No evidence of the use, storage or release of hazardous materials or petroleum products were observed in the exterior areas of the Project site with the exception of the idle emergency generator located on the east side of Building 1 (Administrative/Auditorium Building), which appeared to have been gasoline fueled. Gasoline was observed stored in a 55-gallon steel drum in the flammable materials' storage building located to the southeast of Building 9 (Shop Building), used for fueling landscaping equipment. Minor staining was observed on the concrete floor of the flammable storage building. However, the floor was in relatively good condition with no visible cracks or gaps that could act as conduits to the subsurface.⁸

No underground storage tanks (USTs) are located on the Project site. A Roof and Plot Plan, dated January 22, 1923, indicates that a heating oil aboveground storage tank (AST) was located on the Campus, east of the center portion of Building 1 (Administrative/Auditorium Building). A copy of this plan is presented in Appendix 7 of the Phase I ESA in Appendix F of this Draft EIR.⁹

The Project site is located in an area of naturally occurring petroleum. The Project site is not located within the boundaries of a defined oil field but several oil fields are present in the vicinity. No petroleum product releases have occurred at the Project site. However, considering the presence of an idle emergency generator and the historical presence of a heating oil AST, the Phase 1 ESA concluded that there is the potential for the presence of petroleum product contamination at the Project site.

As a part of the PEA-E, soil sampling for TPH was conducted in the vicinity of the former oil AST and in a location where stained soil was observed TPH concentrations for all samples were either below detection or below regulatory screening levels for residential soils resulting in less than significant carcinogenic risk.¹⁰

Polycyclic Aromatic Hydrocarbons (PAHs)

An incinerator, presumably for solid waste, was located on the Project site near the southwest corner of Building 9 (Shop Building). Based on this, it is possible that adjacent soils have been impacted by burn ash containing combustion by-products such as PAHs, furans, and heavy metals.

Concentrations of PAHs were below the laboratory practical quantitation limit (PQL), which is the value at which the presence of the substance can be distinguished from the absence of the substance with a high degree of confidence, in each of the samples (0.5, 1.5 and 2.5 feet bgs samples) and were below the RSLs for residential soil resulting in less than significant carcinogenic risk.¹¹

⁸ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California, May 18, 2016, and included in Appendix F of this Draft EIR

⁹ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California, May 18, 2016, and included in Appendix F of this Draft EIR

¹⁰ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

¹¹ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

Polychlorinated Biphenyl

Typical sources of polychlorinated biphenyls (PCBs) include electrical transformer cooling oils, fluorescent light fixture ballasts and hydraulic oil. In 1976, the U.S. Environmental Protection Agency (EPA) banned the manufacture and sale of PCB-containing transformers. Prior to this date, transformers were frequently filled with a dielectric fluid containing PCB-laden oil. By 1985, the U.S. EPA required that commercial property owners with transformers containing more than 500 parts per million (ppm) PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within 16 feet.¹²

Four electric transformers were observed during the Project site inspection; one located adjacent to the south of Building 9 (Shop Building) in a fenced-in area, two located north of Building 20 (Cafeteria/Classroom Building) in an open area, and one located inside of Building 20 (Cafeteria/Classroom Building) in the sprinkler shutoff room. All four transformers are dry-type and there was no indication of a release in the vicinity of the transformers.¹³

PCB concentrations were below the laboratory PQL and the RSLs for residential soil in the subset of soil samples chosen for PCB analysis (38 samples collected from a depth of 0.5 or 1.5 feet bgs) resulting in less than significant carcinogenic risk.¹⁴

Methane Zones

A review of the Department of Conservation, Division of Oil, Gas & Geothermal Resources (DOGGR) Online Mapping System indicates that no oil wells are located on the Project site or adjacent properties. The closest current or historic plugged and abandoned oil and/or gas well to the Campus are the plugged and abandoned oil wells Chevron U.S.A. Inc. “Highland Corehole” 1 and “Highland Corehole” 2, located approximately 0.24 miles west-southwest of the Campus.¹⁵ A methane screening survey was conducted as a part of the PEA-E to determine the presence of oil field gases and the design level of mitigation required.¹⁶

The natural biodegradation of hydrocarbons in subsurface soil results in the production of methane gas and hydrogen sulfide that migrate vertically through the subsurface and may accumulate beneath pavement, foundations, or other impermeable barriers. Methane and hydrogen sulfide can also be transported as dissolved gases in groundwater. Methane and hydrogen sulfide gases are considered hazardous due to their explosive properties, and hydrogen sulfide is also toxic.

Methane is extremely flammable, may form an explosive mixture with air, and can act as an asphyxiant at concentrations below the upper explosive limit (UEL) as it displaces oxygen in an enclosed space.

¹² 40 Code of Federal Regulations 761.30, Fire Rule.

¹³ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California, May 18, 2016, and included in Appendix F of this Draft EIR

¹⁴ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

¹⁵ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

¹⁶ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

The lower explosive limit (LEL) and UEL for methane are 5 percent and 15 percent by volume, respectively. Methane is odorless, colorless, and explosive when present in concentrations between its LEL and UEL.

The Project site is located within a methane zone. Therefore, there is a potential for methane and other volatile gases to occur beneath the site. For any new structures, a site-specific subsurface methane gas investigation would be required and a permanent methane gas control system may be necessary beneath proposed buildings at the site.¹⁷

Methane gas screening measured maximum methane concentrations above 12,500 ppm, and therefore, the Project site is categorized as Design Level V at all pressures per the Los Angeles Department of Building and Safety (LADBS) criteria. Design Level V is the highest level of mitigation LADBS specifies for methane zones and requires measures including, but not limited to, passive (dewatering system, subsurface slab passive venting system, and impermeable gas membrane) and active ventilation system components (gas detection, mechanical ventilation, and alarm system).

Volatile Organic Compounds

While collecting soil gas samples as a part of the PEA-E, stained soil was observed. Therefore, soil samples were collected and analyzed. VOCs were detected at concentrations below their respective Environmental Screening Levels (ESLs) and was not identified as a chemical of potential concern (COPC) for the site. In addition, the detected concentration of benzene was below the Soil Screening Level (SSL). No further assessment for VOCs appears warranted.¹⁸

Arsenic and Lead

Due to previous agricultural activities and use of pesticides on the site and the potential presence of lead-based paint (LBP) residue in on-site soils, the Phase I ESA recommended completion of a site investigation to include soil sampling and analysis for lead and arsenic.¹⁹ The results of soil sampling indicated that arsenic and lead were detected at concentrations at, or above, regulatory screening levels.²⁰ Based on these findings and in consultation with the OEHS, the estimated volume of arsenic and lead-impacted shallow soil to be removed from the school during the Removal Action Work Plan (RAW) process along with the anticipated waste classification is summarized below:²¹ The RAW document was written at the recommendation of the PEA-E and will be conducted in phases prior to and during demolition as the Project moves forward.

¹⁷ Amec Foster Wheeler, Preliminary Geotechnical Investigation, August 10, 2015.

¹⁸ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

¹⁹ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

²⁰ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

²¹ Leighton Consulting, Inc., Final Draft Removal Action Workplan. February 8, 2018, and included in Appendix H of this Draft EIR.

- Approximately 54 cy of arsenic and lead-impacted soil with non-hazardous waste classification
- Approximately 106 cy of arsenic and lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated lead levels.

Metals

Due to potential burn ash containing combustion by-products such as metals from the operation of the previous incinerator, the Phase I ESA recommended sampling soils for the presence of heavy metals.²² The soil matrix analytical results indicate that the remaining CA Title 22 metals at the Project site were either below detection or below regulatory screening levels.²³

Asbestos-Containing Materials and Lead-Based Paint

Asbestos is a naturally-occurring mineral made up of microscopic fibers that has been widely used in the building industry for a variety of uses, including acoustic and thermal insulation and fireproofing. It is often found in ceiling and floor tiles, linoleum, pipes, structural beams and asphalt. However, asbestos can become a hazard when the fibers separate and become airborne. Asbestos has been linked to lung disease caused by inhalation of airborne asbestos fibers. In 1979, a ban on asbestos-containing materials (ACMs) in building materials was imposed, although it is still possible to detect ACMs in buildings built after 1980.

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission (CPSC) specified limited on lead content in such products. In 1977, CPSC banned the production of virtually all house paints containing lead and banned its use in commercial buildings in 1978.

Based on historical sources for the Project site, the existing structures onsite were constructed prior to 1950. Based on the age of the on-site structures, there is the potential that LBP and ACMs were used during the construction of the on-site structures.²⁴

3.5.2 Regulatory Setting

Federal

Federal agencies with responsibility for hazardous materials management include the U.S. EPA, Department of Labor (Federal Occupational Health and Safety Administration [OSHA]), and Department of Transportation (U.S. DOT). Major federal laws and issue areas include the following statutes and regulations promulgated thereunder:

²² WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

²³ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

²⁴ WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

Resources Conservation and Recovery Act 42 USC 6901 et seq.

Resources Conservation and Recovery Act (RCRA) is the principal law governing the management and disposal of hazardous materials. RCRA is considered a “cradle to grave” statute for hazardous wastes in that it addresses all aspects of hazardous materials from creation to disposal. RCRA applies to this Project because RCRA is used to define hazardous materials, off-site disposal facilities, and the wastes each may accept are regulated under RCRA during Project construction and/or operation.

Emergency Planning and Community Right-to-Know Act (EPCRA from SARA Title III)

EPCRA improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. EPCRA also established reporting obligations for facilities that store or manage specified chemicals. EPCRA applies to this Project because the use of hazardous materials during Project construction and/or operation (e.g., fuels, paints and thinners, solvents, etc.) would require the preparation and implementation of written emergency response plans to properly manage hazardous materials and respond to accidental spills.

U.S. DOT Hazardous Materials Transportation Act of 1975 (49 USC 5101)

U.S. DOT, in conjunction with the USEPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transportation of hazardous materials. The Code of Federal Regulations (CFR) 49, 171–180, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. This Act applies to this Project because contractors would be required to comply with its storage and transportation requirements to reduce the possibility of spills during Project construction and/or operation.

The Federal Motor Carrier Safety Administration (49 CFR Part 383-397)

The Federal Motor Carrier Safety Administration, a part of the US DOT, issues regulations (49 CFR Part 383-397) concerning highway transportation of hazardous materials, the hazardous materials endorsement for a commercial driver’s license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials. These regulations apply to this Project because contractors would be required to comply with its storage and transportation requirements that would reduce the possibility of spills during Project construction and/or operation.

Occupational Safety and Health Administration (OSHA; 29 USC 15)

OSHA is the federal agency responsible for ensuring worker safety. These OSHA regulations provide standards for safe workplaces and work practices, including those relating to hazardous materials handling. OSHA applies to this Project because contractors would be required to comply with its hazardous materials management and handling requirements that would reduce the possibility of spills.

State

State and local agencies often have either parallel or more stringent rules than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the State or local agency section.

The primary state agencies with jurisdiction over hazardous chemical materials management are the DTSC, State Water Quality Control Board (SWQCB), and Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB is the agency responsible for the approval of Soil Management Plans, which are required in order to ensure that soil excavated during construction of the Project does not adversely impact human health or the environment and that soils are handled, stored, and disposed of, or reused onsite, in accordance with applicable laws, regulations, and policies.

Other state agencies involved in hazardous materials management are the Department of Industrial Relations (state OSHA implementation), Office of Emergency Services (OES) – California Accidental Release Prevention (CalARP) implementation, California Air Resources Board (CARB), California Department of Transportation (Caltrans), Office of Environmental Health Hazard Assessment (OEHHA – Proposition 65 implementation), and the California Integrated Waste Management Board (CIWMB). Hazardous materials management laws in California include the following statutes and regulations promulgated thereunder.

Hazardous Waste Control Act (HWCA; California Health and Safety Code, Section 25100 et seq.)

The HWCA is the state equivalent of RCRA and regulates the generation, treatment, storage, and disposal of hazardous waste. This act implements the RCRA “cradle-to-grave” waste management system in California but is more stringent in its regulation of non-RCRA wastes, spent lubricating oil, small-quantity generators, transportation and permitting requirements, as well as in its penalties for violations.

Utility Notification Requirements

Title 8, Section 1541 of the CCR requires excavators to determine the approximate locations of subsurface utility installations (e.g., sewer, telephone, fuel, electric, water lines, or any other subsurface installations that may reasonably be encountered during excavation work) prior to opening an excavation. The California Government Code (Section 4216 et seq.) requires owners and operators of underground utilities to become members of and participate in a regional notification center. According to Section 4216.1, operators of subsurface installations who are members of, participate in, and share in the costs of a regional notification center are in compliance with this section of the code. Underground Services Alert of Southern California (known as DigAlert) receives planned excavation reports from public and private excavators and transmits those reports to all participating members of DigAlert that may have underground facilities at the location of excavation. Members would mark or stake their facilities, provide information, or give clearance to dig (DigAlert 2017). This requirement would apply to this Project because any excavation would be required to identify underground utilities before excavation.

Asbestos-Containing Materials

Prior to renovation or demolition of buildings containing asbestos, contractors licensed to conduct asbestos abatement work must be retained. Asbestos abatement contractors must follow state regulations contained in 8 CCR 1529, and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. The South Coast Air Quality Management District (SCAQMD) and the California Occupational Safety and Health Administration (Cal/OSHA) must be notified 10 days prior to initiating construction and demolition activities. Asbestos encountered during demolition of an existing building must be transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

Lead and Lead-Based Paints (LBPs)

Regulations to manage and control exposure to LBP are described in CFR Title 29, Section 1926.62 and CCR Title 8 Section 1532.1. These regulations cover the demolition, removal, cleanup, transportation, storage and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring and compliance to ensure the safety of construction workers exposed to lead-based materials. Cal/OSHA's Lead in Construction Standard requires project proponents to develop and implement a lead compliance plan when LBP would be disturbed during construction. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA requires 24-hour notification if more than 100 square feet of LBP would be disturbed. The regulations to manage and control exposure to LBP pertain to project construction which would include the potential demolition and disposal of lead-containing materials.

The State of California (Title 8 Section 1532. Lead) requires that if LBP with a lead concentration over 600 ppm is to be disturbed, then the individuals performing the work shall have proper lead training and wear personal protective equipment.

California Office of Emergency Services

In order to protect the public health and safety and the environment, the California Office of Emergency Services is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters, public safety officers, and regulatory agencies need to be included in business plans in order to prevent or mitigate the damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of the California Health and Safety Code Article 1–Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2–Hazardous Materials Management (Sections 25531 to 25543.3).

Local

Hazardous Materials Plans and Los Angeles Fire Code

At the local level, the Los Angeles Fire Department (LAFD) monitors the storage of hazardous materials for compliance with local requirements. Specifically, businesses and facilities that store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LAFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LAFD also issues permits for hazardous materials handling and enforces California's Hazardous Materials Release Response Plans and Inventory Law (Health and Safety Code sec. 25500 et seq.). Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored onsite, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds must comply with the reporting requirements and file a Business Emergency Plan (BEP) with the local administering agency.

The LAFD also administers the applicable sections of the Los Angeles City Fire Code, including Division 8, Hazardous Materials Disclosures. Those businesses that store hazardous waste or hazardous materials must submit a Certificate of Disclosure to the LAFD.

Senate Bill 1082

In 1993, Senate Bill (SB) 1082 was passed by the State Legislature to streamline the permitting process for those businesses that use, store, or manufacture hazardous materials. The passage of SB 1082 provided for the designation of a CUPA that would be responsible for the permitting process and collection of fees. The CUPA would be responsible for implementing at the local level the Unified Program, which serves to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

- Hazardous Waste;
- Hazardous Materials Business Plan;
- California Accidental Release Prevention Program;
- Underground Hazardous Materials Storage Tanks;
- Aboveground Petroleum Storage Tanks/Spill Prevention Control and Countermeasure Plans; and
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs.

In the County of Los Angeles, the Health Hazardous Materials Division of the County of Los Angeles Fire Department is designated as the CUPA responsible for implementing the above-listed program elements. The laws and regulations that established these programs require that businesses that use or store certain quantities of hazardous materials submit a HMBP that describes the hazardous materials usage, storage, and disposal to the local oversight agency (CUPA).

Los Angeles Municipal Code

The Project Site is located in a City-designated methane buffer zone. Los Angeles Municipal Code (LAMC), Chapter IX, Article 1, Division 71, Section 91.7103, also known as the Los Angeles Methane Seepage Regulations, establishes requirements for buildings and paved areas located in methane zones and methane buffer zones. Requirements for new construction within such zones include methane gas sampling and, depending on the detected concentrations of methane and gas pressure at the site, application of design remedies for reducing potential methane impacts. The required methane mitigation systems are based on the site Design Level, with more involved mitigation systems required at the higher Site Design Levels.

LAUSD

The SUP Program EIR included Standard Conditions to provide sufficient performance standards for future projects to reduce environmental impacts. The following Standard Conditions are applicable to hazards and hazardous materials.

**TABLE 3.5-1
SUP PROGRAM EIR – APPLICABLE HAZARDS AND HAZARDOUS MATERIALS STANDARD CONDITIONS**

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-HAZ-1	Electro-magnetic fields	Placement of new classrooms or outdoor play areas within 500 feet of existing high voltage power lines or cell towers	During project design (Planning)	<p>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.</p> <p>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>

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-HAZ-2	Pipeline Hazards	Placement of new classrooms or outdoor play areas within 1,500 feet of hazardous pipelines	During project design (Planning)	<p>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>
SC-HAZ-3	Rail Hazards	Placement of new classrooms or outdoor play areas within 1,500 feet of a railroad track easement	During project design (Planning)	<p>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>
SC-AQ-1	Air Toxics Health Risk	<p>New classrooms or outdoor play areas:</p> <ul style="list-style-type: none"> - Within 0.25 mile of mobile and stationary emission sources - On the LAUSD priority list of schools most at risk from air pollution - Near an OEHS-identified high-risk facility. - Placement of new classrooms or outdoor play areas within 0.25 mile of emission sources 	During project design (Planning)	<p>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.</p> <p>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>

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<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>

3.5.3 Thresholds of Significance

In 2015, the California Supreme Court in *CBIA v. BAAQMD*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the Project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. For example, if construction of the project on a hazardous waste site will cause the potential dispersion of hazardous waste in the environment, the EIR should assess the impacts of that dispersion to the environment, including to the project's users.

State CEQA Guidelines Appendix G

In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (*see Impact 3.5-1, below*);
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (See Impact 3.5-2, below);
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the

public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport or public use airport, would the project result in a safety hazard for people residing or working in the project area (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (*see Initial Study section 4.17 in Appendix A of this Draft EIR*); or
 - h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands (*see Initial Study section 4.17 in Appendix A of this Draft EIR*).
-

Title 5 of the California Code of Regulation Section 14010 incorporates health and safety factors provided in the California Department of Education's (CDE) School Site Selection and Approval Guide. In combination with the thresholds provided in the State CEQA Guidelines, these thresholds (Thresholds "i" through "t") ensure that schools provide safe learning environment for students.

In accordance with the School Site Selection and Approval Guide, the Project would have a significant impact related to hazards and hazardous materials if it would:

- i) Be located on a site that is (a) a current or former hazardous waste disposal site or solid waste disposal site and, if so, has the waste been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or a site that contains one or more pipelines, situated underground or above ground, which carries hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line which is used only to supply natural gas to that school or neighborhood (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - j) Be located within one-fourth of a mile of any facilities which might be reasonably anticipated to emit hazardous or acutely hazardous substances or waste (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - k) Be located on a site where the property line is less than the following distance from the edge of respective power line easements. 100 feet of a 50-133 kV line, 150 feet of a 220-230 kV line, or 350 feet of a 500-550 kV line (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - l) Be located on a site that is within 1,500 feet of a railroad track easement (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - m) Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard (See Impact 3.5-3, below);
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- n) Be located on a site that is near a reservoir, water storage tanks, or high-pressure water pipelines (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - o) Be located within 1,500 feet of a pipeline that may pose a safety hazard (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - p) Be located on a site that contains, or is near, propane tanks that can pose a safety hazard (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - q) Be located on a site that does not have a proportionate length to width ratio to accommodate the building layout, parking and playfields that cannot be safely supervised (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - r) Be located on a site where the existing or proposed zoning of the surrounding properties is incompatible with schools and may pose a health or safety risk to students (*see Initial Study section 4.17 in Appendix A of this Draft EIR*);
 - s) Be located on a site with a traffic pattern for school buses that can pose a safety hazard (See Impact 3.5-4, below); or
 - t) Be located on a site that is within 2,000 feet of a significant disposal of hazardous waste (*see Initial Study section 4.17 in Appendix A of this Draft EIR*).
-

3.5.4 Methodology

The evaluation of hazardous conditions and materials associated with construction and operation of the Project is based primarily on the Phase I ESA,²⁵ Geotechnical Engineering Evaluation Report,²⁶ the Removal Action Workplan and the Draft Final Preliminary Environmental Assessment Equivalent Document.^{27,28} The Phase I ESA identified the presence of hazardous materials occurring on the Project Site, the potential hazards posed by such materials, and recommendations for addressing identified potential hazards.

The Phase I ESA was prepared to American Society for Testing and Materials (ASTM) E 1527-13, *Standard Practice for Environmental Site Assessments*, requirements for assessing the presence or potential presence of above-ground and subsurface hazardous materials at the Project Site, as well with the requirements of 40 CFR (Code of Federal Regulations), Part 312, *Standards and Practices for All Appropriate Inquiry*.

Tasks performed for the Phase I ESA included: a review of title information pertaining to the Project Site; review and summary of prior environmental documents pertaining to the Project Site; an evaluation of standard environmental record sources contained within federal, State and local

²⁵ WorleyParsons. Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

²⁶ Amec Foster Wheeler, Preliminary Geotechnical Investigation, August 10, 2015.

²⁷ Leighton Consulting, Inc., Final Draft Removal Action Workplan. February 8, 2018, and included in Appendix H of this Draft EIR.

²⁸ Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

environmental databases within specific search distances; an evaluation of additional environmental record sources obtained from local regulatory departments/agencies; a qualitative evaluation of the physical characteristics of the Project Site through a review of published topographic, geologic, and hydrogeologic maps, published groundwater data, and area observations to characterize surface water flow conditions; an evaluation of past site and adjacent/nearby property uses through a review of historical resources; a physical inspection of the Project site (interior and exterior) conducted to search for conditions indicative of potential environmental concerns (e.g., USTs, ASTs, associated tank piping, stained soil or pavement, equipment that may contain or have historically contained PCBs, etc.); a physical assessment of indications of past uses and visual observations of adjacent surrounding properties to assess potential impacts to the Project Site; interviews with the client, a site owner representative, and local regulatory official; and the preparation of the Phase I ESA.

Based on the aforementioned research, testing and monitoring, the Phase I ESA identifies whether any of the following three types of hazardous conditions, defined by ASTM E 1527-13, occur on the Project Site:

- **Recognized Environmental Conditions (RECs):** The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimus conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.
- **Controlled Recognized Environmental Conditions (CRECs):** A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).
- **Historical Recognized Environmental Conditions (HRECs):** A past release of any substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activities and use limitations, institutional controls, or engineering controls).

The Phase I ESA identified RECs on the Project site in connection with current and previous site uses. The Phase I ESA did not identify any existing off-site sources of releases that would be likely to contribute to a vapor encroachment condition for Project site soils or groundwater.²⁹

Section 15125(d) of the State *CEQA Guidelines* requires that an EIR discuss any project inconsistencies with applicable plans that the decision-makers should address. Projects are considered consistent with regulatory plans if they are compatible with the general intent of the plans and would not preclude the

²⁹ WorleyParsons. Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

attainment of their primary goals. The intention of the evaluation of consistency with regulatory plans is to determine if non-compliance would result in a significant physical impact. Accordingly, the criterion for determining significance with respect to an emergency response and evacuation plan (in this case) emphasizes conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect, recognizing that an inconsistency with a plan, policy, or regulation does not necessarily equate to a significant impact on the environment. Therefore, the analysis of potential hazardous and hazardous materials impacts of the Project considers consistency with adopted applicable emergency response and evacuation plans based on a review of the relevant plan(s).

3.5.5 Impact Analysis

Impact 3.5-1) The Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction

Construction activities required for the Project would involve trenching, excavation, grading, and other ground-disturbing activities, as well as removal of on-site hazardous materials and soils. Construction activities would temporarily require use of equipment, such as trucks, excavators, and other powered equipment, and would use potentially hazardous materials such as fuels (gasoline and diesel) and lubricants (oils and greases). In addition, construction may use hazardous materials such as glues, solvents, paints, thinners, or other chemicals. Such materials would be used in quantities typically associated with construction of an institutional development and would be transported, handled, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Therefore, compliance with the applicable regulations would ensure that construction of the Project would not create a significant hazard to the public or the environment through accident conditions involving the release of hazardous materials.

Impacted Soils

LAUSD would implement a RAW for the proposed Project. Approximately 160 cy of impacted soil containing COCs; specifically, arsenic and lead, at levels that exceed the LAUSD's cleanup goals would be removed from areas located throughout the Project Site as shown on **Figures 3.5-1** through **3.5-4**.

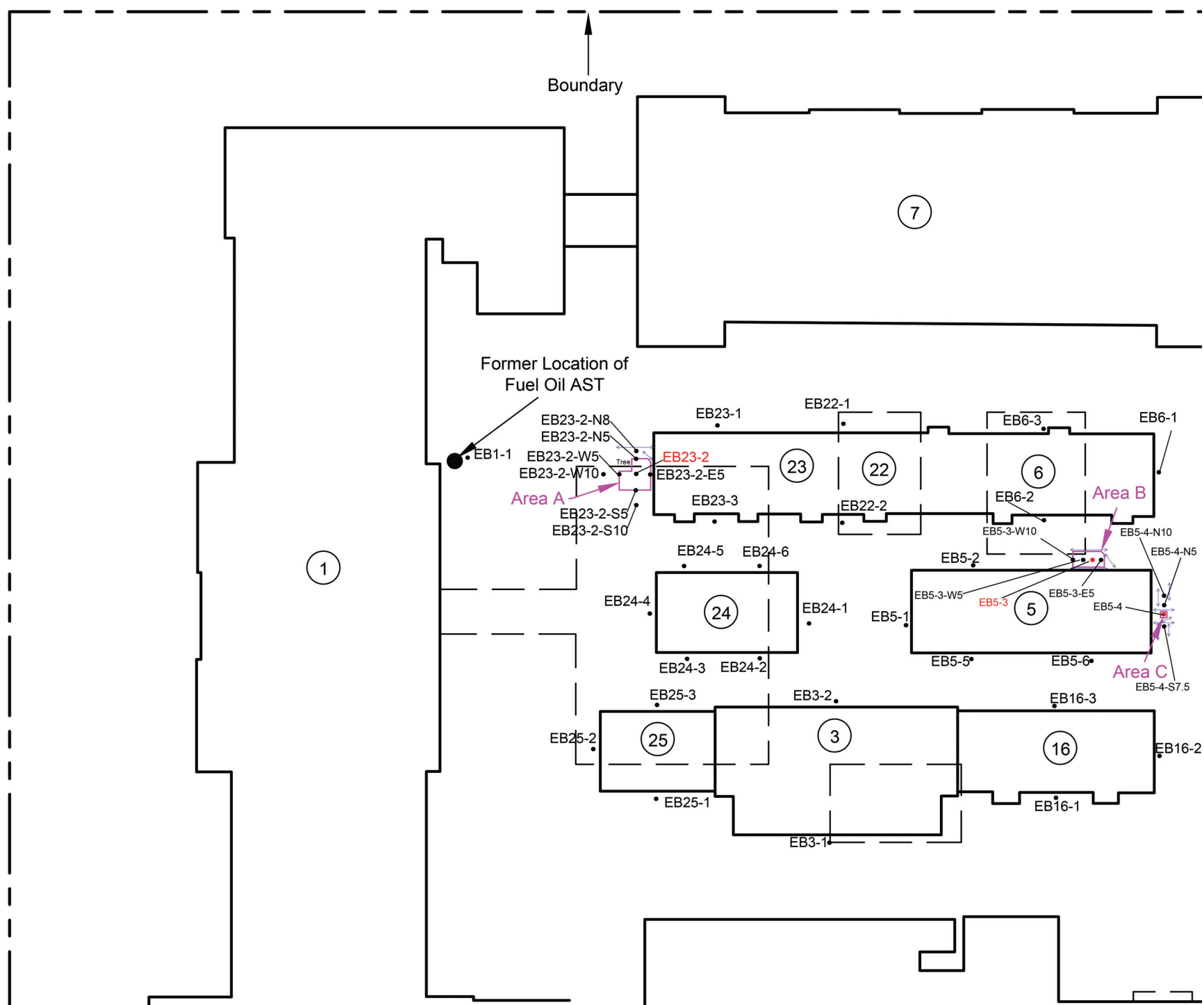
Implementation of the proposed Project would include deployment of the RAW, which would entail excavation and offsite removal. Excavation would be performed using heavy equipment consisting of, but not limited to, an excavator, backhoe, loader, and dump truck. Ancillary facilities (i.e., wastewater holding tank) would also be used during implementation of the RAW. Excavation operations may generate fugitive dust emissions. Suppressant foam, water spray, and other forms of vapor and dust control may be required during excavation, and workers may be required to use personal protective equipment to reduce exposure to the COCs. The depth of excavations may be limited due to physical constraints associated with the site. Sloping excavation sidewalls and slot-cutting may result in increased volume of soil requiring excavation. Confirmation soil sampling and analysis would be conducted to verify soil impact concentrations at the excavation bottom and sidewalls.

As described above, excavated soil would be either directly-loaded into waiting dump trucks or temporarily stockpiled within an on-site “holding area” using a rubber-tire backhoe or similar equipment (such as wheel loader). Any temporary soil stockpiles would be properly secured and protected until ready for loading for off-site transportation and disposal to an appropriate facility. Truck loading would take place concurrently with excavation operations associated with the project. Clean, imported soil or other fill material would be brought to the site to backfill areas where impacted soil was removed. Imported soil and/or other fill material would be accompanied by certificates, analytical data, and/or other supporting documents that indicate the import material is in conformance with cleanup criteria as required by LAUSD specifications, Section 01 4524, Environmental Import/Export Materials Testing. Approximately 54 CY of soil at the Project Site is considered nonhazardous and is expected to be disposed of at a Class III landfill. Approximately, 106 CY at the Project Site is considered California-restricted non-RCRA hazardous waste and is expected to be disposed of at a Class I landfill under hazardous waste manifest.

A site-specific Health and Safety Plan (HASP) would be prepared for this Project in accordance with current health and safety standards. A HASP would include the health and safety procedures to be used during the excavation and sampling of soils at the Campus, to remove and dispose of soils impacted with lead and arsenic. The Remediation Contractor, Environmental Consultant, and any subcontractors doing field work in association with this RAW would either abide by the HASP or would develop their own safety plan that, at a minimum, would meet the requirements of this HASP. The designated Site Safety Officer (SSO) would be responsible for maintaining compliance with the HASP. Daily tailgate health and safety meetings would be held and meeting participation would be documented in field forms that would be maintained with Project records.

Regulations establish specific guidelines regarding risk planning and accident prevention, protection from exposure to specific chemicals, and the proper storage of hazardous materials. All RAW contractors and subcontractors would be responsible for operating in accordance with the most current requirements of Title 8, CCR (i.e., General Industry and Construction Safety Orders) ([Section 5129]), Title 29 of the Code of Federal Regulations (i.e., Standards for Hazardous Waste Operations and Emergency Response [Section 1910.120] and Construction Industry Standards [Section 1926]), SCAQMD Rules 403 and 1466 (dust control and air monitoring, see Section 3.2 Air Quality), and other applicable federal, State and local laws and regulations. All personnel would operate in compliance with all California OSHA requirements.

The Project would be in compliance with all applicable federal, state, and local requirements concerning the use, storage, transport and management of hazardous materials. Construction in conformance with standard regulatory compliance measures is adequate to reduce the potential risk hazards associated with construction activities. Accordingly, the Project would not increase the probable frequency or severity of consequences to people or property from the potential exposure to hazardous substances. Therefore, compliance with the applicable regulations would ensure that construction of the Project would not create a significant hazard to the public or the environment.



LEGEND

- EB1-1 Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead or >12 mg/kg arsenic the ID is red
- Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria
- California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg [No sample results exceeded Federal RCRA Hazardous Waste criteria]
- Approximate location of detected utilities near impacted soil areas
- Existing Buildings
- Approximate Former Building Footprints
- Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

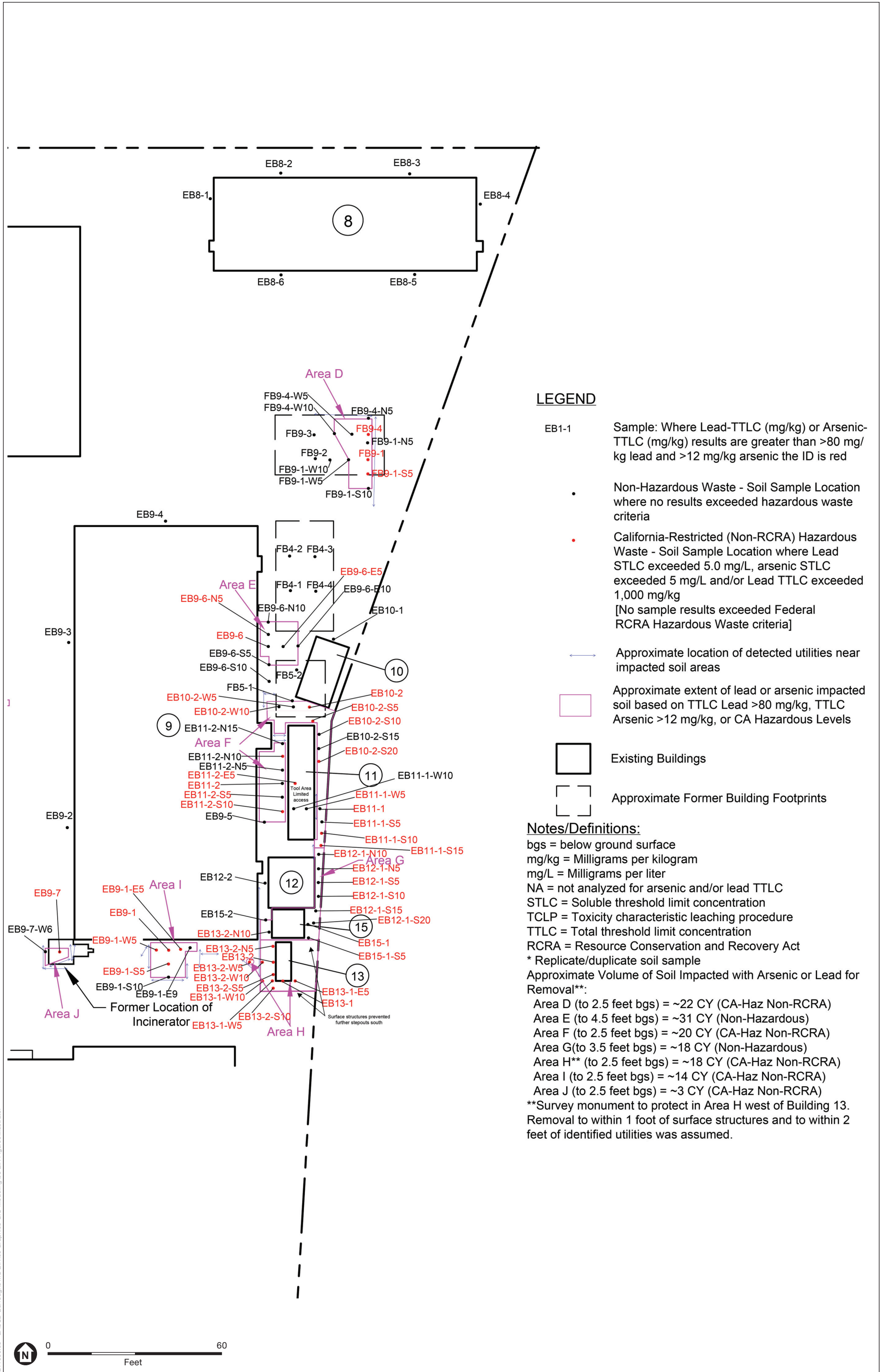
Notes/Definitions:

- bgs = below ground surface
- mg/kg = Milligrams per kilogram
- mg/L = Milligrams per liter
- NA = not analyzed for arsenic and/or lead TTLC
- STLC = Soluble threshold limit concentration
- TCLP = Toxicity characteristic leaching procedure
- TTLC = Total threshold limit concentration
- RCRA = Resource Conservation and Recovery Act
- * Replicate/duplicate soil sample
- Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
 - Area A (to 1.5 ft bgs) = ~5.0 CY (Non-Hazardous)
 - Area B (to 1 feet bgs) = ~1.8 CY (CA-Haz Non-RCRA)
 - Area C (to 1.5 feet bgs) = ~0.2 CY (CA-Haz Non-RCRA)
- **Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.



D211085.03 - LAUSD_Burroughs MS EIR/05_Graphics-GIS-Modeling/03_EIR_Figures/Illustrator

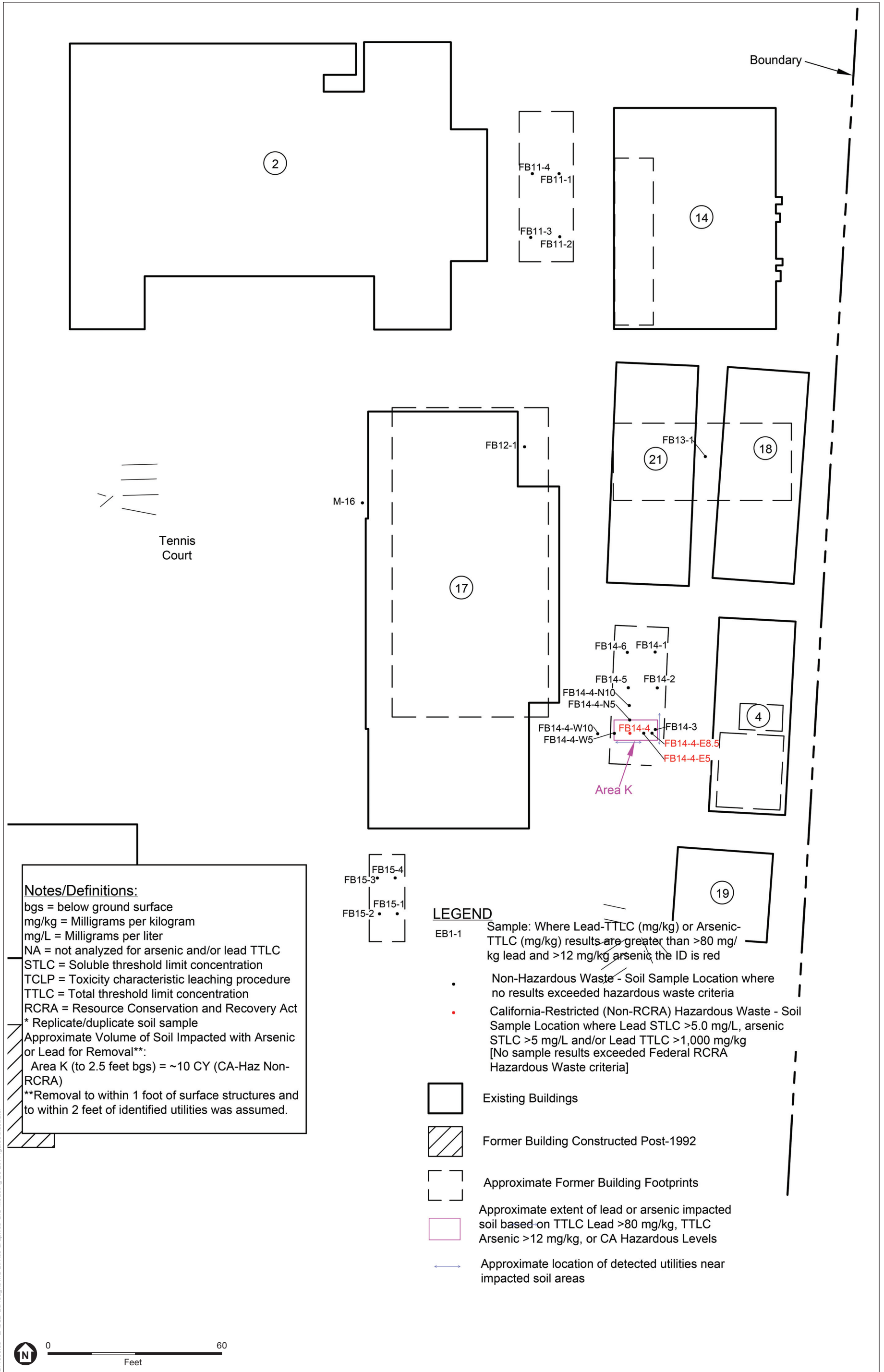
Figure 3.5-1
Existing Building 5 and Existing Building 23



SOURCE: Leighton, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

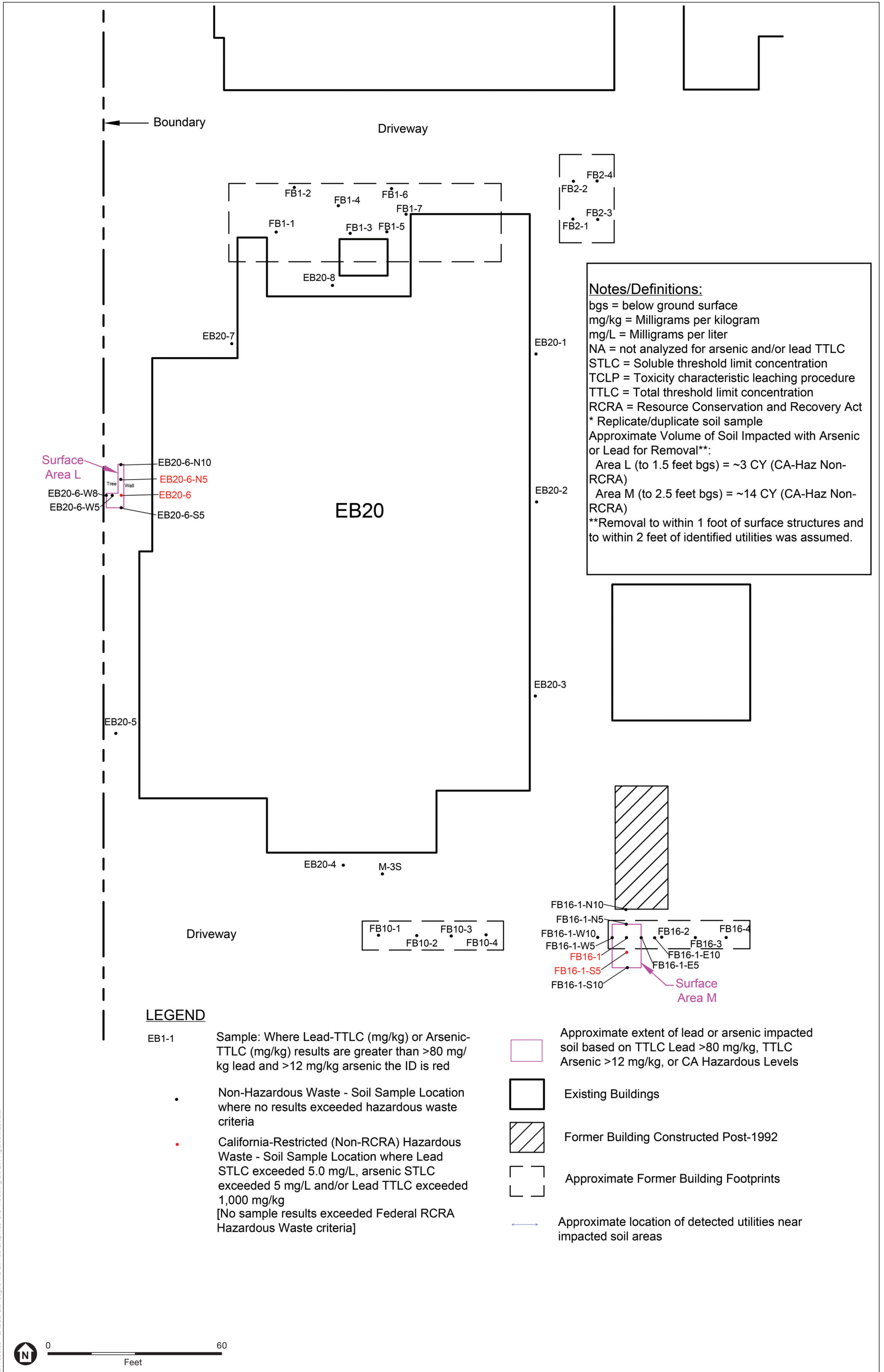
Figure 3.5-2
Existing Building 9 and Vicinity



SOURCE: Leighton, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 3.5-3
Former Building 14



D211085.03 - LAUSD_Burroughs MS EIR05_Graphics-GIS-Modeling03_EIR_FiguresIllustrator

SOURCE: Leighton, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 3.5-4
Eisting Building 20 and Former Building 16

Asbestos-Containing Materials and Lead-Based Paint

The federal Clean Air Act regulates asbestos as a hazardous air pollutant, which subjects it to regulation by the SCAQMD under its Rule 1403. OSHA also regulates asbestos as a potential worker safety hazard. The Asbestos-Containing Materials in Schools rule (Code of Federal Regulations [CFR] Title 40, Part 763) requires local education agencies to inspect their school buildings for asbestos-containing building materials, prepare asbestos management plans, and perform asbestos response actions to prevent or reduce asbestos hazards. Compliance with asbestos regulations and requirements is the responsibility of the District's Facilities Environmental Technical Unit (FETU). The proposed Project would be reviewed for presence of potential ACM prior to Project initiation, and materials that are suspected of containing asbestos would be tested. All ACM must be removed by licensed asbestos abatement contractors or by trained and certified FETU personnel using specific handling procedures. In addition, construction contractors are required to comply with the requirements of the District's Standard Specification Section 13280, "Asbestos Abatement and Asbestos Related Disturbance" during any project where ACM may be disturbed. Compliance with federal and State regulations and the District guidelines and procedures would ensure the reduced risk of release of hazardous building materials into the environment. Therefore, impacts associated with the handling and disposal of ACM would be less than significant.

As with asbestos, the proposed Project would be reviewed by the District's FETU for the presence of potential LBP prior to the Project being started. Specific procedures for handling building materials that may contain lead include, but are not limited to, lead abatement performed by contractors certified by the California Department of Public Health, review of assessment reports addressing the impact to lead-based materials, written approval by the District's environmental representative of the abatement work plan, and transportation of lead-related waste under a Uniform Hazardous Waste Manifest. In addition, construction contractors are required to comply with the requirements of the District's Standard Specification Section 13282, "Lead Abatement and Lead Related Construction Work" during any project where lead-containing materials may be disturbed. Compliance with federal and State regulations and the District guidelines and procedures would ensure that impacts associated with the handling and disposal of LBP would be less than significant.

Methane Zone

The Project site has been identified as being located in a City of Los Angeles-designated Methane Zone, which is defined as a site located in a geographic area recognized to have the risk of methane seepage from underlying geologic formations or adjacent methane generating sources such as landfills. This designation is considered to be potentially significant if methane seeps into enclosed building spaces where it could present a fire hazard or if occupants are exposed to other compounds such as hydrogen sulfide that may also be present with the methane. As discussed above in section 3.5.1, based on the findings of the methane gas survey, the proposed Project would be in Site Design Level V as shown on Table 71 of the LAMC Chapter IX, Article 1, Division 71. All new buildings and paved areas located in a methane zone would be required to comply with the requirements set forth in the Los Angeles Building Code, Division 71, and the Methane Mitigation Standards established by the LADBS. The Methane Mitigation Standards include installation procedures, design parameters, and test protocols for the methane gas mitigation system for all projects within a Methane Zone. Compliance with City Standard mitigation measures would reduce the risk from methane intrusion to students,

staff, and visitors. Therefore, the Project would result in less than significant impacts associated with the potential for exposure to methane or explosive hazards and no additional mitigation measures would be required.³⁰

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

Impact 3.5-2) The Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The proposed Project would be implemented on a school site surrounded by residential uses. No additional schools are located within ¼-mile of the Project site. The proposed Project would involve the excavation and removal of impacted soil. Dust control measures would be implemented during remedial activities to reduce the potential for fugitive dust and migration of contaminants in compliance with requirements contained in SCAQMD Rule 402. As discussed previously under Impact 3.5-1, a site-specific HASP shall be prepared for the proposed Project in accordance with current health and safety standards to reduce the potential for accident conditions involving the release of hazardous materials into the environment. The on-site SSO would ensure compliance with the dust control measures and HASP. Removal of impacted soil would be completed in conformance with federal, state, and local hazardous waste/materials regulations. Compliance with regulatory requirements and with the HASP would ensure that the proposed Project would not result in hazardous emissions, materials or substances within ¼-mile of an existing school and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

Impact 3.5-3) The Project would not be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard.

Construction

The I-110 freeway is located approximately 2.5 miles northeast of the Project site, and the I-10 freeway is located approximately 1.9 miles south of the Project site. The campus frontage is located on South McCadden Place (a two-lane local street), Wilshire Boulevard, and West 6th Street (four-lane arterial roadways). There are sidewalks on each street adjacent to the Project site. The intersection of South

³⁰ City of Los Angeles, Los Angeles Municipal Code, Ordinance No. 175790. March 2004. Available at: <https://www.ladbs.org/docs/default-source/publications/ordinances/methane-code---ordinance-no-175790.pdf?sfvrsn=10>

McCadden and West 6th Street is signalized, with pedestrian crossing signals and crosswalk pavement markings. Due to the proposed Project's proximity to these major arterial roadways, there is potential for Project construction activities to result in a significant impact to public safety. Trucks associated with construction activities would likely use South McCadden Place, 6th Street, and Wilshire Boulevard as major regional roadways to arrive at Highlander Road and eventually the Project site. The intersection of South McCadden Place and West 6th Street is signalized with pedestrian crossing signals and crosswalk pavement markings. The intersection of Wilshire Boulevard and South McCadden Place is not signalized. Thus, there is potential for Project construction trucks or other vehicles accessing the site to impede upon pedestrian safety. However, in accordance with Standard Condition SC-T-4, construction-related trucks would be required to access the site during off-peak commute periods. Implementation of SC-T-4 would reduce the potential for conflicts between construction traffic and pedestrians to occur. Therefore, Project construction would not result in a significant impact to pedestrian safety associated with an arterial roadway or freeway.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

Operation

The campus frontage is located on South McCadden Place, Wilshire Boulevard, and West 6th Street. There are sidewalks on each street adjacent to the Project site. The intersection of South McCadden and West 6th Street is signalized, with pedestrian crossing signals and crosswalk pavement markings. The intersection of Wilshire Boulevard and South McCadden Place is not signalized. However, as discussed in Chapter 2, Project Description, bus drop-off/pickup parking would be located on campus within the expanded south parking lot along Wilshire Boulevard. In addition, the Project's provision for an increase in on-site parking spaces would ease traffic congestion in the surrounding neighborhood by reducing the need for school-related traffic to find on-street parking spaces. The main student entry point would be from South McCadden Place and the schools' main pedestrian entrance is off West 6th Street.

The primary entrances to the school would avoid parent drop-off/pickup along Wilshire Boulevard, thus reducing the potential for safety hazards at the intersection of Wilshire Boulevard and South McCadden Place. Additionally, the proposed Project would be implemented in accordance with LAUSD standards, including establishing school speed zones within the local neighborhood and requiring drop-off areas to be located 90 feet or more away from major streets. As mentioned previously, the proposed Project would be designed to ensure safe arrival and departure of all transportation modes. Therefore, safety impacts associated with the proximity of an arterial roadway would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

Impact 3.5-4) The Project would not be located on a site with a traffic pattern for school buses that can pose a safety hazard.

Pedestrian access to and from the school during construction would be minimally altered, and any temporary changes to pedestrian access during construction would be completed as outlined in a worksite traffic control plan for the proposed project (per SC-T-4). Construction vehicles accessing the Campus would avoid drop-off and deliveries during the start and end of the school day. Further construction-related access and traffic specifics would be coordinated with the campus administrators, LAUSD's Transportation Branch, and OEHS and would be detailed in the worksite traffic control plan. The proposed Project would not increase the existing number of students or staff, and therefore, would not generate new (permanent) traffic to the study area. The proposed Project would not include changes to existing roadways, and would be designed to enhance path of travel, accessibility, and other pedestrian travel throughout the campus. The project would increase the number of on-site parking spaces and would alter the location of access driveways for the on-site parking spaces. Accommodation for Americans with Disabilities Act (ADA)-compliant access for student pick-up/drop-off would be provided in the improved northern parking lot.

As discussed in Section 3.7, Transportation and Circulation, as part of the proposed Project, school bus loading would be prohibited along the McCadden Place frontage of the school and relocated to the expanded southern parking lot. With the elimination of school bus loading on McCadden Place, more curb space would be allocated to passenger vehicle loading and unloading, alleviating existing loading conflicts and double-parking along McCadden Place, improving circulation along McCadden Place. The loading area within the southern parking lot would be of sufficient length to accommodate all school buses and would not result in internal queuing that would spillover onto Wilshire Boulevard or block access to the parking lot stalls. The addition of two ingress/egress points on Wilshire Boulevard and the relocation of school bus loading to the southern parking lot would improve circulation in the immediate vicinity of the site.

Additionally, LAUSD would implement SC-T-2, which requires the parking areas to be designed to meet the District's School Design Guidelines by ensuring that potential hazards or incompatible uses are avoided. As mentioned previously, the Project would alter vehicle access for the campus by introducing two new driveways on Wilshire Boulevard and relocating the driveway on McCadden Place to approximately 100 feet north of the Wilshire Boulevard. The potential hazard associated with these new driveways and its potential conflict point (where the driveway crosses the sidewalk) would not cause a significant pedestrian safety impact because all driveways would be designed with adequate widths, turning radii, and adequate line of sight. In addition, with the elimination of school bus loading on McCadden Place, more curb space would be allocated to passenger vehicle loading and unloading, alleviating existing loading conflicts, double-parking along McCadden Place, and potential safety hazards associated with students crossing the McCadden.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

3.5.6 Cumulative Impacts

The Project, together with other development projects in the area, has the potential to result in potentially significant impacts related to hazards or the release of potentially hazardous materials and safety. Generally, the geographic context for evaluating cumulative impacts related to hazards, hazardous materials, and safety includes those related projects in sufficiently close proximity to the Project that could, when considered together with the Project, collectively result in a potentially significant cumulative impact.

As previously stated, the Phase I ESA prepared for the Project identified potentially hazardous conditions located within search distances that varied from 0.25 mile to one mile from the Project site, as indicated by the databases consulted. The Phase I ESA concluded that based on distance, topography, gradients, current regulatory status, and the historic uses, some of the sites surrounding the Project site represent a likely past, present, or material threat of release.

Several of the related projects are within two miles to the Project Site. The majority are mixed-use projects with commercial and residential. Construction and operation of the related projects can reasonably be expected to involve the limited use of potentially hazardous materials typical of those used in residential and commercial developments, including gasoline, lubricants, cleaning agents, paints, and pesticides. However, potentially hazardous materials typically used in such developments are commonplace and would be present in relatively small quantities. Each of these developments must comply with its site-specific development standards, such as federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192), Health and Safety Code, Section 25500 et seq., SB 1082, City of Los Angeles Hazardous Materials Plan required by Chapter 6.95 of the California Health and Safety Code, and federal and state hazardous materials handling and transporting regulations (DOT Hazardous Materials Transportation Act of 1975 (49 USC 5101), Federal Motor Carrier Safety Administration 49 CFR Part 383-397) as described above in Section 3.5.2, Regulatory Setting.

Moreover, each related project would be subject to applicable manufacturers' specifications and regulations intended to ensure the safe transport, storage, handling, and disposal of such materials. This reduces the potential for the individual projects to contribute to significant cumulative impacts related to hazards and hazardous materials.

With respect to safety hazards related to the school's proximity to a major arterial and school bus circulation, the proposed Project includes improvements to circulation in the vicinity, including relocation of the school bus loading/unloading area to within the expanded south parking lot. Additionally, the proposed Project would be implemented in accordance with LAUSD standards. As mentioned previously, the proposed Project would be designed to ensure safe arrival and departure of

all transportation modes. These thresholds are specific to school site safety and related projects, together with the proposed Project could result in a cumulative impact if a related project would affect school bus circulation or the school's safe access to a major arterial. The proposed Project would relocate bus loading/unloading to within the south parking lot and away from the public right-of-way and would not result in any alterations to the public right-of-way either during construction or operations. Each related project would be subject to evaluating its effect on the vehicular and pedestrian circulation network in the local area and safety, access, and circulation related to school operations would be included in that evaluation. Therefore, the potential for the individual projects to contribute to significant cumulative impacts related to school safety would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant.

3.5.7 References

40 Code of Federal Regulations 761.30, Fire Rule.

Amec Foster Wheeler, Preliminary Geotechnical Investigation, August 10, 2015. Included in Appendix A of this Draft EIR.

Leighton Consulting, Inc., Final Draft Preliminary Environmental Assessment Equivalent. October 5, 2017, and included in Appendix G of this Draft EIR.

Leighton Consulting, Inc., Final Draft Removal Action Workplan. February 8, 2018, and included in Appendix H of this Draft EIR.

PCR Services Corp. "Character-Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California, 90005." July 28, 2015.

WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, Los Angeles, California. May 18, 2016, and included in Appendix F of this Draft EIR

3.6 Noise

This section analyzes potential noise and vibration impacts that would result from the proposed Project. The analysis describes the existing noise environment in the Project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. Noise worksheets and technical information and data used in this analysis are provided in **Appendix I** of this Draft EIR.

3.6.1 Environmental Setting

Fundamentals of Noise

Noise Principals and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid, or gaseous, medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions, or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.¹

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.²

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.³ The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering, or weighting, is referred to as

¹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed August 2018.

² California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed August 2018.

³ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed August 2018.

A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements.⁴ Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.6-1, Decibel Scale and Common Noise Sources**.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time, as presented in Figure 3.6-1. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many of the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.⁵

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.⁶

- L_{eq}:** The equivalent sound level, is used to describe noise over a specified period of time in terms of a single numerical value; the L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level.
- L_{dn}:** the average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).
- CNEL:** The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and after an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

⁴ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.3, September 2013. Accessed August 2018.

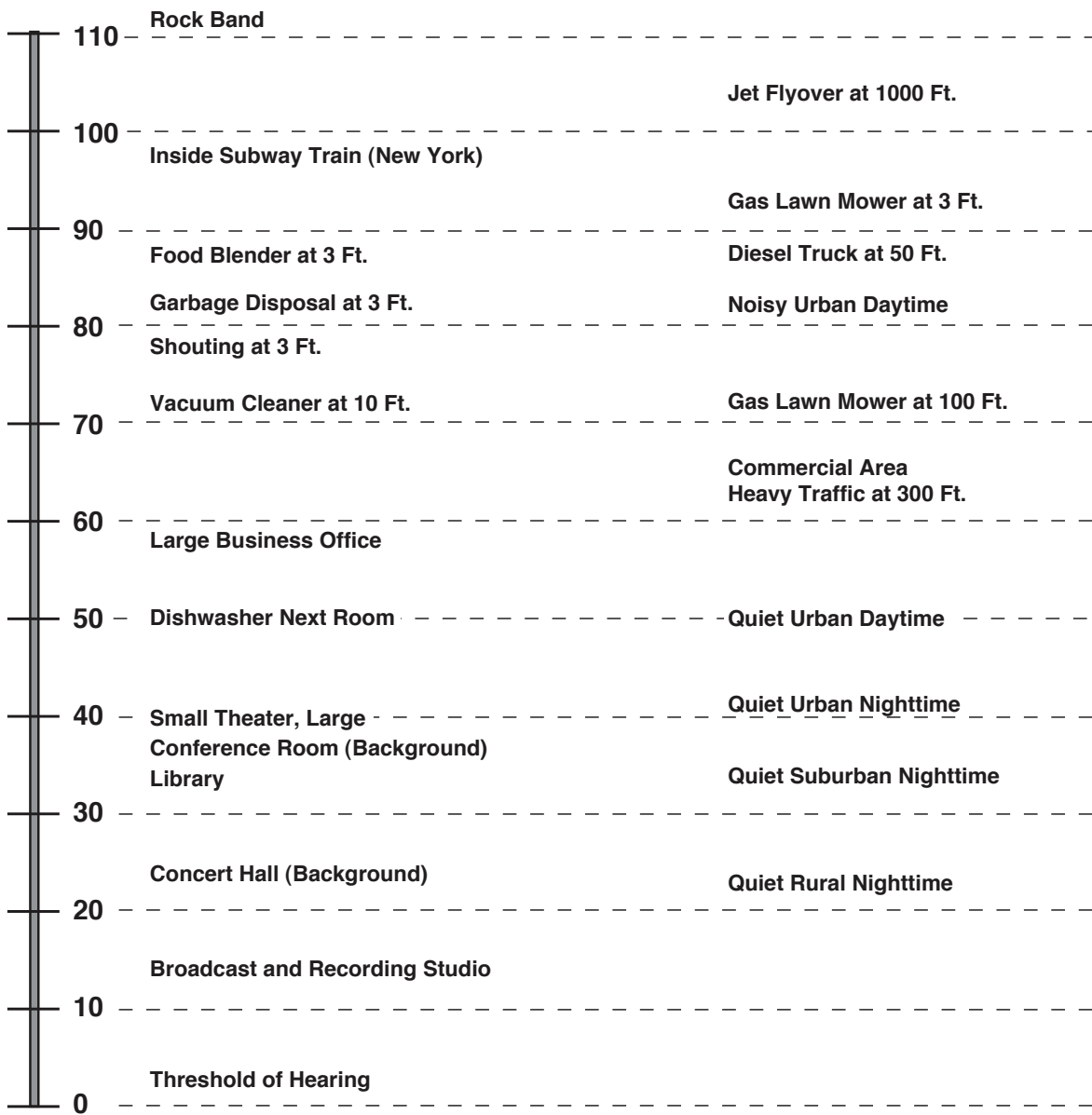
⁵ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed August 2018.

⁶ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.2, September 2013. Accessed August 2018.

**NOISE LEVEL
(dBA, Leq)**

**COMMON INDOOR
NOISE LEVELS**

**COMMON OUTDOOR
NOISE LEVELS**



D211085.33

SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: [http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf](http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 3.6-1
Decibel Scale and Common Noise Sources



Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance, or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance);
- Interference effects (e.g., communication, sleep, and learning interference);
- Physiological effects (e.g., startle response); and
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep.⁷

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur: (Caltrans, 2013a)

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because

⁷ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.2.1, September 2013. Accessed August 2018.

the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and 10 sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source (Caltrans, 2013a).

Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically “hard” sites and 7.5 dBA for “soft” sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 dBA at 100 feet, 68 dBA at 200 feet).⁸ Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water.⁹ No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source.¹⁰ Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, provides an excess ground attenuation value of 1.5 dBA (per doubling distance).¹¹

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as “line” sources, which approximate the effect of several point sources.¹² Noise from a line source propagates over a cylindrical surface, often referred to as “cylindrical spreading.”¹³ Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.¹⁴ Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

⁸ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

⁹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹⁰ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹¹ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.2, September 2013. Accessed July 2018.

¹² California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

¹³ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

¹⁴ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.1, September 2013. Accessed July 2018.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels.¹⁵ Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances. Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels.¹⁶

Fundamentals of Vibration

Vibration can be interpreted as energy transmitted in waves through the ground, or man-made structures, which generally dissipate with distance from the vibration source. Because energy is lost during the transfer of energy from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment*, ground-borne vibration can be a serious concern for nearby neighbors of a transit system route, or maintenance facility, causing buildings to shake and rumbling sounds to be heard.¹⁷ In contrast to airborne noise, ground-borne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, heavy trucks traveling on rough roads, and construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment.¹⁸

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity.¹⁹ The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building, or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment.

The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves, or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional

¹⁵ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.3, September 2013. Accessed July 2018.

¹⁶ California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, Section 2.1.4.3, September 2013. Accessed July 2018.

¹⁷ Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*

¹⁸ Caltrans 2013b. *Transportation and Construction Vibration Guidance Manual*.

¹⁹ FTA, 2006. *Transit Noise and Vibration Impact Assessment*.

exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

Existing Conditions

Some land uses are considered more sensitive to ambient noise levels than others are, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. According to the City of Los Angeles General Plan, residential areas are considered to be the most sensitive type of land use to noise and industrial/commercial areas are considered to be the least sensitive. In addition to classrooms on the Project site, other existing noise sensitive uses in the immediate vicinity include:

- To the North: single-family residences are located along West 6th Street.
- To the South: multi-family residences are located along Wilshire Boulevard.
- To the West: single-family residences are located along McCadden Place.
- To the East: single-family residences are located along South June Street.

Ambient Noise Levels

Schools can generate noise from sports events, athletic fields, playgrounds and parking lot activity, and some of these features may potentially cause noise increases at nearby receptors, as schools are typically located in residential areas.²⁰ Burroughs MS is predominantly surrounded by single- and multi-family residential uses.

To establish existing ambient noise levels, ambient noise measurements were conducted at four locations, representing the nearest land uses in the vicinity of the Project site. The measurement locations, along with existing development, are shown on **Figure 3.6-2**, Noise Measurement Locations. Short-term (15-minute) noise measurements were conducted at locations R1 through R4 between approximately 8:10 A.M. and 9:28 A.M. on Thursday, August 16, 2018, to characterize the existing noise environment in the Project vicinity.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (“SLM”). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade at the following locations, as shown in Figure 3.6-2:

- **R1:** Represents the existing noise environment of residential uses along June Street.
- **R2:** Represents the existing noise environment of residential uses along Wilshire Boulevard.
- **R3:** Represents the existing noise environment of residential uses along McCadden Place.

²⁰ LAUSD, 2015. School Upgrade Program Final Environmental Impact Report, <http://achieve.lausd.net/ceqa>. Adopted by the Board of Education on November 10, 2015.

- **R4:** Represents the existing noise environment of residential uses along 6th Street.

A summary of noise measurement data is provided in **Table 3.6-1, Summary of Ambient Noise Measurements**. As shown in Table 3.6-1, daytime ambient noise levels ranged from approximately 55.4 dBA to 73.2 dBA, Leq.

**TABLE 3.6-1
SUMMARY OF AMBIENT NOISE MEASUREMENTS**

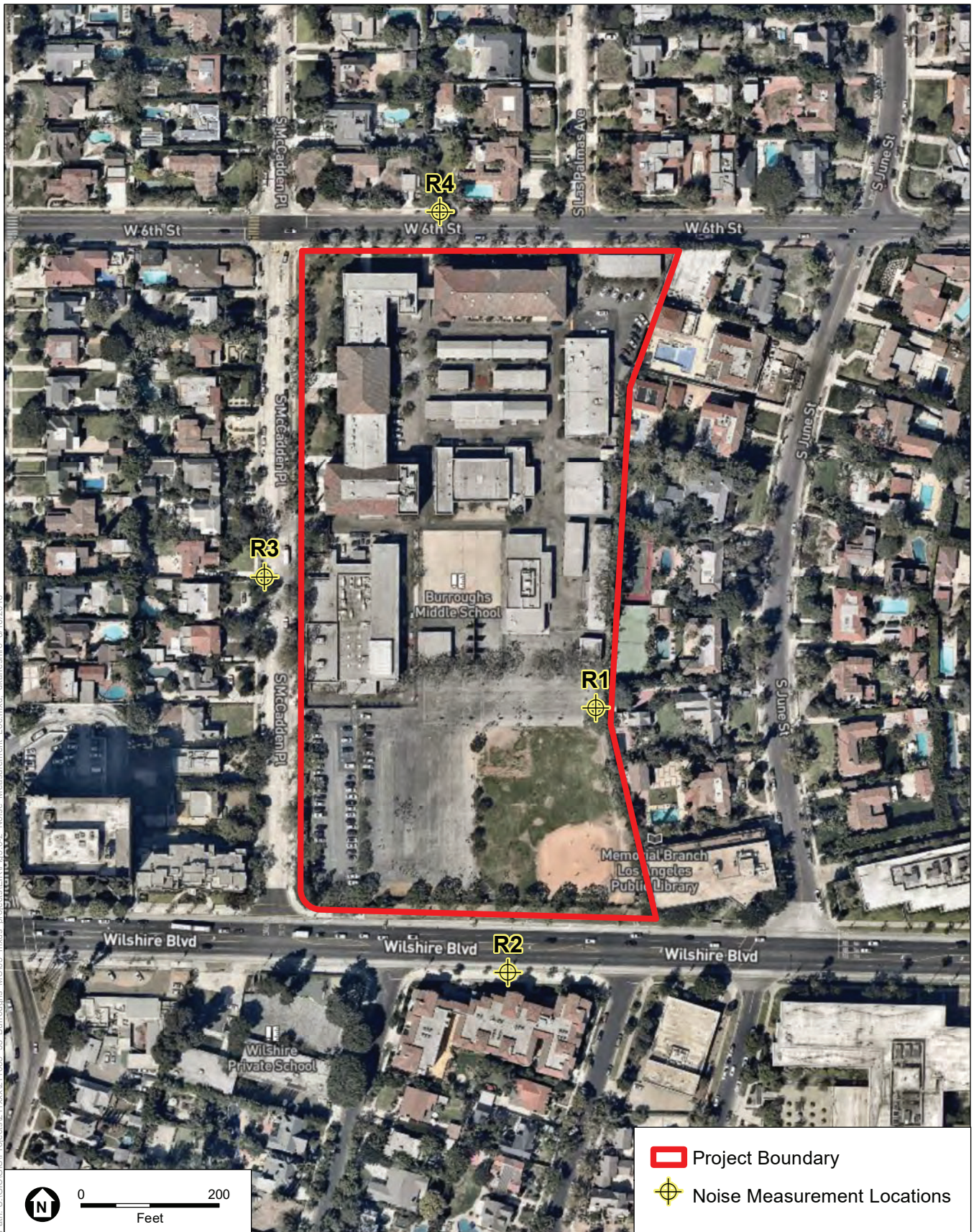
Location, Duration, Date of Measurements	Measured Daytime Ambient Noise Levels (7 A.M. to 10 P.M.) Hourly dBA L_{eq}
R1 8/16/18 8:10 A.M. to 8/16/18 8:25 A.M.	55.4
R2 8/16/18 9:13 A.M. to 8/16/18 9:28 A.M.	72.8
R3 8/16/18 8:33 A.M. to 8/16/18 8:48 A.M.	61.9
R4 8/16/18 8:51 A.M. to 8/16/18 9:06 A.M.	73.2

SOURCE: ESA, 2018

Existing Groundborne Vibration Levels

Aside from periodic construction work that may occur throughout the City, sources of groundborne vibration in the Project site vicinity may include heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, etc.) on local roadways. According to FTA, rubber-tire vehicles rarely create ground-borne vibration problems unless there is a discontinuity, or bump, in the road that causes the vibration. A typical bus operating on smooth roadway would generate groundborne vibration velocity levels of approximately 63 VdB (approximately 0.006 in/sec PPV) at 50 feet.²¹

²¹ FTA, 2006. Transit Noise and Vibration Impact Assessment



SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 3.6-2
Noise Measurement Locations



3.6.2 Regulatory Setting

A number of statutes, regulations, plans and policies have been adopted which address noise and vibration concerns. Detailed below is a discussion of the relevant regulatory setting and noise and vibration regulations, plans, and policies.

Federal

LAUSD’s SUP Program EIR uses the FTA’s guidance, 2006 Transit Noise and Vibration Impact Assessment, to evaluate vibration levels resulting from Project construction activities on human annoyance and structural damage. Based on this guidance, the vibration standards are presented in **Table 3.6-2**, Ground-Borne Vibration Criteria: Human Annoyance and **Table 3.6-3**, Ground-Borne Vibration Criteria: Architectural Damage.

**TABLE 3.6-2
 GROUND-BORNE VIBRATION CRITERIA: HUMAN ANNOYANCE**

Land Use Category	Max Lv (VdB)	Description
Workshop	90	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas.
Office	84	Felt vibration. Appropriate to offices and nonsensitive areas.
Residential – Daytime	78	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	72	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

NOTE: Max Lv (VdB): Lv is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

SOURCE: FTA, 2006; PEIR 2014.

**TABLE 3.6-3
 GROUND-BORNE VIBRATION CRITERIA: ARCHITECTURAL DAMAGE**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTE: Lv (VdB): Lv is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

SOURCE: FTA 2006; PEIR, 2014

State

Under California Code of Regulations (CCR) Title 5,²² the California Department of Education (CDE) regulations require the school district to consider noise in the site selection process. As recommended by CDE guidance, if a school district is considering a potential school site near a freeway, or other source of noise, it should hire an acoustical engineer to determine the level of sound that the site is exposed to and to assist in designing the school should that site be chosen.

CCR Title 24 establishes the California Building Code (CBC). The most recent building standard adopted by the legislature and used throughout the state is the 2016 version, which took effect on January 1, 2017. The State of California's noise insulation standards are codified in the CBC (Title 24, Part 2, Chapter 12). These noise standards are for new construction in California for the purposes of interior compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential, schools, or hospitals, are near major transportation noises, and where such noise sources create an exterior noise level of 60 dBA CNEL, or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Local

While LAUSD is exempt from local jurisdictional municipal codes, the District typically considers local plans and policies for the communities surrounding its facilities. The proposed Project is located within the City of Los Angeles. Applicable City of Los Angeles and LAUSD noise standards and policies are described below.

City of Los Angeles Municipal Code

Chapter XI, Noise Regulation, of the Los Angeles Municipal Code (LAMC) establishes acceptable ambient sound levels to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones and provides procedures and criteria for the measurement of the sound level of noise sources. These procedures recognize and account for differences in the perceived level of different types of noise and/or noise sources. In accordance with the Noise Regulations, a noise level increase from certain regulated noise sources of 5 dBA L_{eq} over the existing, or presumed, ambient noise level at an adjacent property line is considered a violation of the Noise Regulations. The 5 dBA L_{eq} increase above ambient is applicable to City-regulated noise sources (e.g., mechanical equipment), and it is applicable any time of the day.

²² California Code of Regulations, Title 5. Education, Division 1. California Department of Education, Chapter 13. School Facilities and Equipment, Subchapter 1. School Housing, Article 2. School Sites, 14010. Standards for School Site Selection.

To account for people’s increased tolerance for short-duration noise events, the Noise Regulations provide a 5 dBA L_{eq} allowance for noise occurring more than 5 but less than 15 minutes in any 1-hour period and an additional 5 dBA L_{eq} allowance (total of 10 dBA L_{eq}) for noise occurring 5 minutes, or less, in any 1-hour period.

Section 41.40 of the LAMC prohibits any construction, or repair work, of any kind between the hours of 9:00 p.m. and 7:00 a.m. of the following day. It also prohibits construction activities before 8:00 a.m., or after 6:00 p.m. on any Saturday, or national holiday, or at any time on any Sunday.

Section 112.05 of the LAMC defines the maximum noise level of powered equipment, or powered hand tools. The noise level is limited to 75 dBA at 50 feet for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic, or other powered equipment, between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City, or within 500 feet. However, noise limitations shall not apply where compliance is technically infeasible, which means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device, or techniques, during the operation of the equipment.

City of Los Angeles Guidelines for Noise-Compatible Land Uses

The City has adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the City of LA CEQA Thresholds Guide in terms of the CNEL. CNEL guidelines for specific land uses are classified into four categories: (1) “normally acceptable,” (2) “conditionally acceptable,” (3) “normally unacceptable,” and (4) “clearly unacceptable.” As shown in **Table 3.6-4**, City of Los Angeles Land Use Compatibility for Community Noise, a CNEL value of 70 dBA is the upper limit of what is considered a “conditionally acceptable” noise environment for hotel uses, although the upper limit of what is considered “normally acceptable” for hotel uses is set at 65 dBA CNEL.

**TABLE 3.6-4
 CITY OF LOS ANGELES LAND USE COMPATIBILITY FOR COMMUNITY NOISE**

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: City of Los Angeles, LA CEQA Thresholds Guide, 2006.

Los Angeles Unified School District Program EIR

The SUP Program EIR²³ establishes Standard Conditions (SCs) for reducing impacts on noise and vibration in areas where future projects would be implemented under the SUP. Applicable SCs related to noise impacts associated with the proposed Project are provided in **Table 3.6-5**, Noise Standard Conditions of Approval.

Projects implemented under the Program EIR are anticipated to result in potentially significant and unavoidable impacts related to construction noise and vibration and impacts related to increases in traffic noise and exposure to airport noise are anticipated to be less-than-significant.

²³ The Standard Conditions of Approval have been updated since the adoption of the 2015 version in order to incorporate and reflect changes in the recent laws, regulations, and the Los Angeles Unified School District's standard policies, practices, and specifications.

**TABLE 3.6-5
NOISE STANDARD CONDITIONS OF APPROVAL**

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-N-1	Exterior Campus Noise	On-campus exterior noise levels would be greater than 67 dBA L_{eq}	During Project design (Planning)	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 L_{eq} .
SC-N-2	Interior Classroom Noise	Interior classroom noise levels would be greater than 45 dBA L_{eq}	During Project design (Planning)	<p>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.
SC-N-3	Operational Noise	Operational noise levels from new source exceeds local noise standards, policies, or ordinances at adjacent noise-sensitive land uses	During Project design and construction (Planning, Construction)	<p>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;

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				<ul style="list-style-type: none"> • Sound barriers; • Buildings • Masonry walls; • Enclosed bleacher foot wells; and/or • Other site-specific project design features.
SC-N-4	Construction Noise and Vibration (Annoyance)	Construction on an existing school campus	Prior to and during construction (Construction)	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.
SC-N-5	Vibration (Structural Damage)	Rock blasting	During construction (Construction)	LAUSD shall require the Construction Contractor to minimize blasting for all demolition activities, where feasible.
SC-N-6	Vibration (Structural Damage)	Pile driving or heavy vibration activities	During construction (Construction)	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.
SC-N-7	Vibration (Structural Damage)	Vibration intensive activities are planned within 25 feet of a historic building or structure	Prior to and during construction (Construction)	<p>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>

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-N-8	Construction Noise	Use of large, heavy or noisy construction equipment within 500 feet of a non-LAUSD sensitive receptor	During construction (Construction)	<p>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

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				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.
SC-N-9	Construction Noise	Use of large, heavy or noisy construction equipment on an operating LAUSD campus	During construction (Construction)	<p>Construction Contractor shall ensure that LAUSD interior classroom noise and exterior noise standard 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.¹ Noise construction measures may include, but are not limited to:</p> <p><u>Path Controls</u></p> <ul style="list-style-type: none"> Noise Attenuation Barriers² – 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. <p>Temporary Relocation – in extreme otherwise unmitigable cases, students shall be moved to temporary classrooms / facilities away from the construction activity</p>

SOURCE: LAUSD 2019

¹ 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.

² 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).

3.6.3 Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, the proposed Project could have a potentially significant impact with respect to noise if it would:

-
- a) Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (see Impact 3.6-1, below);
 - b) Expose people to or generate excessive groundborne vibration or groundborne noise levels (see Impact 3.6-2, below);
 - c) Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (see Impact 3.6-3, below);
 - d) Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project (see Impact 3.6-4, below);
 - e) Expose people residing or working in the Project area to excessive noise levels for a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport (see Initial Study section 4.12 in Appendix A of this Draft EIR);
or
 - f) Expose people residing or working in the Project area to excessive noise levels for a Project within the vicinity of a private airstrip (see Initial Study section 4.12 in Appendix A of this Draft EIR).
-

City of Los Angeles

Operational Traffic Noise

A project would have a long-term operational noise impact if noise levels from project operations cause the ambient noise levels at the property line of affected uses to increase by 3 dBA CNEL, and noise levels reach, or are within the “normally unacceptable,” or “clearly unacceptable” category, or increase by 5 dBA CNEL, or greater.

Operational Stationary Noise

Stationary noise sources are prohibited from causing the ambient noise level to increase by more than 5 dBA L_{eq} .

Construction Noise

Project construction-related activities would result in a significant noise impact at nearby sensitive uses if:

- Construction-related noise levels exceed 75 dBA L_{eq} measured at a distance of 50 feet from equipment when construction activities are located within 500 feet of a residential area unless technically feasible mitigation measures are incorporated;

- Construction activities lasting more than 1 day would exceed existing ambient exterior noise levels by 10 dBA L_{eq} , or more, at a noise sensitive use;
- Construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA L_{eq} , or more, at a noise sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA L_{eq} at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m., or after 6:00 p.m., on Saturday, or on a national holiday, or at any time on Sunday.

Los Angeles Unified School District

The Program EIR outlines the following LAUSD noise level thresholds for school sites according to Education Code Section 17215. The Project would result in a significant long-term noise impact if:

- Exterior noise levels exceed 67 dBA L_{eq} ;
- Interior classroom noise levels exceed 45 dBA L_{eq} ; or
- Permanently increase noise levels at nearby noise-sensitive land uses exceed 3 dBA CNEL

Vibration Criteria

The *CEQA Guidelines* do not define the levels at which groundborne vibration or groundborne noises are considered “excessive.” The City of Los Angeles currently does not have a significance threshold to assess vibration impacts during construction. However, the FTA has provided guidance for the analysis of vibration from transportation and construction-induced vibration sources. The Project is not subject to FTA, or Caltrans, regulations; nonetheless, the FTA guidance serve as a useful tool to evaluate vibration impacts. For the purpose of this analysis, the vibration criteria for human annoyance and structural damage established by the FTA, which are shown previously in Table 3.6-2 and Table 3.6-3, respectively, are used to evaluate the potential vibration impacts of the Project on nearby sensitive receptors.

3.6.4 Methodology

Construction Noise

Onsite Construction Noise

Project construction noise levels were estimated using the FHWA’s Roadway Construction Noise Model (RCNM) and construction equipment information provided by the LAUSD. Predicted noise levels were identified for the nearest sensitive receptors, as well as for classrooms on Campus, based on their respective distances from the construction equipment. To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which the loudest equipment were assumed to be located at the construction area boundary closest to sensitive receptors. The remaining construction equipment were assumed to be located at the approximate mid-point within the construction area boundary and at the furthest point within the construction area boundary relative to the sensitive receptor. These assumptions represent a reasonable worst-case noise scenario since the loudest construction equipment were assumed to be located closest to sensitive receptors. In reality,

construction equipment operates throughout a construction area, and the loudest construction equipment would not always be located at the nearest distance to sensitive receptors, but would typically be active throughout the Project site, and would routinely be located further away from the affected sensitive receptors. The construction noise levels were calculated, in terms of maximum hourly L_{eq} , for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance. The estimated noise levels at the affected receptors were then analyzed against the construction noise standards. Detailed noise calculations are provided in **Appendix I**.

Offsite Construction Traffic Noise

Roadway noise impacts were evaluated using the Caltrans Technical Noise Supplement (TeNS) method based on the estimated maximum number of on-road haul trucks. This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels shown in Table 3.6-1.

Operational Noise

Onsite Stationary Source Noise

During operation of the Project, noise levels would be generated onsite by stationary noise sources, such as generators and air conditioning units, and student activities. The noise levels generated by the stationary noise sources are not assessed because proposed equipment would replace existing equipment that is potentially louder and less efficient. Additionally, the locations and specifications of equipment would not be available at this stage of the proposed Project. Instead, a qualitative assessment is used and the applicable SCs from the Program EIR are incorporated.

Groundborne Vibration

Groundborne vibration levels resulting from construction activities at the Project site were estimated using data in the FTA *Transit Noise and Vibration Impact Assessment* guidance document.²⁴ Potential vibration levels resulting from construction of the Project are identified for offsite locations that are sensitive to vibration (i.e., existing residential buildings) based on their distance from construction activities, as well as classrooms on Campus.

3.6.5 Impact Analysis

Exceedance of Established Noise Standards

Impact 3.6-1 The Project would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

²⁴ FTA, 2006. *Transit Noise and Vibration Impact Assessment*.

Construction Noise

Onsite Construction

Construction of the proposed Project would occur over a 4.5-year construction phasing schedule. The construction schedule includes limited overlap between phases with the most intensive activity occurring during summer break when school is not in session. All construction would occur during daytime hours, specifically 7:00 a.m. to 7:00 p.m. Monday through Friday. Construction is anticipated to begin in fall 2020 and to be completed in late 2025.

Construction activities occurring during each of these phases would require the use of heavy equipment (e.g., excavators, backhoes, loaders, tractors, etc.) along with the use of smaller power tools, generators, and other sources of noise. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity. As such, construction activity noise levels during each phase would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment.

Table 3.6-6, Construction Equipment Usage and Noise Levels, lists the type, maximum noise level, quantity, usage factor, and estimated noise levels of construction equipment to be used for construction phase type. It should be noted that maximum noise levels associated with construction equipment would only be generated when the equipment is operated at full power. Typically, the operating cycle for a piece of construction equipment would involve one, or two, minutes of full power operation followed by three, or four, minutes at lower power settings. As such, the maximum noise levels shown in Table 3.6-6 would occur occasionally throughout the construction day.

Noise-sensitive receptors to the east, south, west, and north of the Project site consist of residential uses, located approximately 5 feet, 100 feet, 75 feet, and 70 feet from the nearest construction activity, respectively. To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which the loudest equipment were assumed to be located at the construction area boundary closest to sensitive receptors. The remaining construction equipment were assumed to be located at the approximate mid-point within the construction area boundary and at the furthest point within the construction area boundary relative to the sensitive receptor. Distances between the closest construction site and the receptors with estimated noise levels per construction phase are presented in **Table 3.6-7, Estimated Construction Noise Levels at Sensitive Receptors**. Calculated noise levels take into consideration noise shielding provided by existing buildings. However, any noise shielding provided by existing screening walls, or landscaping (such as trees), has not been considered. Vegetation can achieve reductions in noise if it is high enough, wide enough, and dense enough so that it cannot be seen over, or through.²⁵ Although trees currently line the boundaries of the Campus, the height, width, and density of the vegetation is not sufficient to block the line-of-sight between the Campus and the public right-of-way. Therefore, it is assumed that existing vegetation would not provide any noise shielding from onsite construction activity.

²⁵ Federal Highway Administration (FHWA), 2017. Noise Barrier Design. https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/keepdown.cfm. Accessed December 2017

**TABLE 3.6-6
CONSTRUCTION EQUIPMENT USAGE AND NOISE LEVELS**

Activity and Equipment	Maximum Noise Level at 50 feet (dBA) ^b	Equipment Quantity (per Phase)	Usage Factor ^b
Demolition			
Excavator	85	1	40%
Other Construction Equipment	85	1	50%
Rubber Tired Dozer	85	1	40%
Crushing Equipment	87	1	20%
Concrete Saw	90	1	20%
Grading/Modernization			
Graders	85	1	40%
Tractors/Loaders/Backhoes	85	1	50%
Rubber Tired Dozer	85	1	40%
Construction			
Forklift	85	1	50%
Crane	85	1	16%
Generator Sets	82	1	50%
Tractors/Loaders/Backhoes	85	1	20%
Welder	73	1	40%
Architectural Coating			
Air Compressor	78	1	50%
Paving			
Paver	85	2	50%
Roller	85	2	20%
Paving Equipment	85	2	50%
^a Maximum Noise Levels and Usage Factor are derived from Federal Highway Administration's (FHWA) Roadway Construction Noise Model User's Guide. Noise levels for those equipment not included in this User's Guide are estimated based on similar equipment.			
SOURCE: LAUSD 2016, ESA 2018			

**TABLE 3.6-7
ESTIMATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS**

Receptor	Estimated Closest Distance (feet) ¹	Existing Ambient Noise Level (dBA L _{eq})	Threshold (dBA L _{eq}) ²	Estimated Hourly Noise Levels (dBA L _{eq})	Reduced Hourly Noise Levels (dBA L _{eq}) ³	Exceeds Threshold?
R1	5	55.4	60.4	105	82	Yes
R2	100	72.8	77.8	83	60	No
R3	75	61.9	66.9	84	61	No
R4	70	73.2	78.2	85	62	No
Onsite Classrooms	10	--	67	106	83	Yes

NOTE: See Appendix I for detailed construction noise calculations.

¹ Distances shown represent the distance of the nearest construction activity to each receptor. Noise modeling accounted for equipment placed at the approximated closest, midpoint, and furthest points of the phase area.

² Threshold for residential receptors +5 dBA over measured existing ambient noise level (see Table 3.6-1). Exterior Threshold for Burroughs Middle School 67 dBA as established in the LAUSD SUP PEIR per Education Code Section 17215.

³ Assumes implementation of noise control measures: exhaust mufflers (-3dBA) and sound barrier (-20 dBA).

SOURCE: ESA, 2019

Noise impacts are considered potentially significant when construction noise levels exceed ambient noise levels by 5 dBA, or more (see Table 3.6-1). Pursuant to Education Code Section 17215 and the LAUSD SUP Program EIR, the exterior noise significance threshold for school sites is 67 dBA. As shown in Table 3.6-7, estimated construction noise levels would potentially exceed the applicable significance thresholds at all studied residential receptors and onsite classrooms. Therefore, the impact would be considered potentially significant before implementation of Program EIR SCs.

The proposed Project requires compliance with the Program EIR SCs, as shown in Table 3.6-5. SC-N-8 and SC-N-9 requires site-specific noise control measures to be implemented during construction. Such measures include installation of exhaust mufflers, proper maintenance of construction equipment, and the use of noise barriers. Absorptive noise mufflers are commercially available and can feasibly reduce noise emitted by heavy-duty construction equipment.²⁶ The City of Los Angeles recognizes that the use of mufflers can achieve noise reductions of up to 3 dBA (City of LA, 2006). In addition, installation of a temporary 15-foot high noise barrier with acoustical blankets with a minimum sound transmission class (STC) of 25 and noise reduction coefficient (NRC) of 0.75 can reduce noise levels by up to 20 dBA. Therefore, it is estimated that implementation of the Program EIR SCs would reduce Project-related construction noise by a total of 23 dBA.

As shown in Table 3.6-7, construction noise levels would be reduced to acceptable levels after implementation of the SCs identified above for receptors R2, R3, and R4. Therefore, impacts would be less than significant with respect to noise levels at receptors located to the south, west, and north

²⁶ United Muffler Corp, <https://www.unitedmuffler.com/>; Auto-jet Muffler Corp, <http://mandrelbending-tubefabrication.com/index.php>; AP Exhaust Technologies, <http://www.apexhaust.com/>.

of the Project site. For receptor R1 (located to the east of the Project site) and on-site classrooms, impacts would not be sufficiently reduced and would be potentially significant.

Offsite Construction Traffic Noise

Construction-related vehicular traffic including hauling activities would generate higher noise levels to the receptors along the access routes (i.e., Wilshire Boulevard, McCadden Place, and West 6th Street). The maximum number of haul trucks accessing the Project site each day for the Soil Removal Phase would be 50 trucks, a total of 100 one-way trips. Assuming that 10 percent of daily trips would occur during the peak hour, 10 truck trips would occur during the peak hour.

Table 3.6-8, On-Road Construction Traffic Noise Levels summarizes anticipated construction traffic noise levels during the soil removal phase of construction. As shown in Table 3.6-8, noise level increases by truck trips would be below the significance threshold of a 5 dBA increase over existing ambient levels. Therefore, noise impacts would be less than significant with respect to offsite construction traffic.

**TABLE 3.6-8
 ON-ROAD CONSTRUCTION TRAFFIC NOISE LEVELS**

Roadway Segment (Receptor)	Modeled Distance (feet) ¹	Existing Ambient ²	Threshold ³	Leq (dBA)	
				Project Haul Truck Noise	Exceed Threshold?
Wilshire Boulevard (R2)	65	72.8	77.8	54	No
McCadden Place (R3)	35	61.9	66.9	57	No
West 6 th Street (R4)	35	73.2	78.2	57	No

See Appendix A.

¹ Calculated distance for each roadway segment is based on the distance of the nearest receptor property line to the roadway centerline.

² See Table 3.6-1

³ Existing Ambient +5 dBA

SOURCE: ESA, 2018.

Operational Noise

The Project would result in potentially significant impacts if there is a permanent increase of over 3 dBA in ambient noise levels within the Project vicinity above existing levels without the Project. To increase the future ambient noise by 3 dBA, in general, it would be necessary to double the number of students, double the school activities over existing conditions, or double the traffic volumes. Project implementation would not provide for an increase in the number of students attending the school, staff required to operate the school, or traffic volumes.

New structures would include stationary noise sources, such as a generator or air conditioning units. Although the Project would result in the installation of new mechanical equipment, the operation of older mechanical equipment currently occurs on the Campus. Therefore, no change in sources of stationary noise would occur due to the Project. Further, the proposed Project would comply with SC-N-2, which requires the purchase of the lowest noise-producing HVAC units emitting noise levels no

greater than 50 dBA and SC-N-3, which requires that noise attenuation measures be incorporated to minimize permanent increases in ambient noise to less than 3 dBA. Therefore, impacts related to operational noise would be less than significant.

Permanent Increase in Ambient Noise Levels

The proposed Project would not result in a 3 dBA increase in noise over existing ambient conditions. Therefore, impacts would be less than significant with respect to permanent increases in ambient noise levels.

Significance Determination

Potentially Significant

Mitigation Measures

Implementation of the following mitigation measure is required to reduce construction noise impacts for on-site classrooms:

NOISE-1: In order to ensure that construction noise does not exceed 67 dBA Leq at the exterior of any occupied classroom (i.e., when class is in session), the use of motorized construction equipment shall be prohibited within 80 feet of any occupied classroom. All construction work requiring the use of motorized construction equipment within 80 feet of a classroom shall occur after regular school hours.

Significance Determination

After implementation of Mitigation Measure NOISE-1 and SC-N-8, maximum hourly construction noise at on-site classrooms while class is in session would reach 66 dBA Leq, which is below the 67 dBA Leq on-campus standard established by the Education Code. Impacts to on-site classrooms would be reduced to less than significant levels.

With regard to the adjacent residential uses located to the east of the Project site (R1), after implementation of mufflers and sound barriers, construction noise levels would continue to exceed the applicable threshold. Other construction noise reduction techniques required to be considered by SC-N-8 and SC-N-9 include the implementation of window treatments, noise barriers, and equipment maintenance and restrictions. Although potentially feasible, these conditions would require resident consent to implement noise-control devices on private property and resident willingness to relocate during the proposed construction period and would require further coordination between LAUSD and affected residents. Therefore, for purposes of this DEIR, on-site construction activity would result in significant and unavoidable impacts with regard to the adjacent residential uses to the east of the Project site.

Exposure to Vibration Levels

Impact 3.6-2 The Project could result in exposure of persons to, or generation of, excessive groundborne vibration?

Construction

Ground-borne vibration would be generated from the operation of heavy construction equipment at the Project site, which could potentially affect the existing sensitive land uses surrounding the site, as well as the students on Campus.

Construction equipment could be close to the residential structures in the Project vicinity. However, it should be noted that the existing structures on Campus would be closer than those residential structures. The construction equipment could be as close as 10 feet from existing onsite structures.

Ground-borne vibration levels resulting from construction activities at the Project site were estimated using data published by the Federal Transit Administration (FTA) in its Transit Noise and Vibration Impact Assessment (2006) document. The Program EIR has adopted vibration standards that are used to evaluate potential human annoyance and architectural damage impacts related to construction activities, which are shown in Table 3.6-2 and Table 3.6-3, respectively.

The various PPV and VdB levels for the general construction equipment that would operate during the construction of the proposed Project are identified in **Table 3.6-9**. Note that pile driving would not be required for the proposed Project.

Structural Damage

Construction activities associated with the proposed Project would have the potential to impact the existing school buildings and surrounding offsite structures. For existing school buildings, the construction equipment could be located within 15 feet of structures, which would result in a significant impact. Although the proposed Project would require compliance with SC-N-4 through SC-N-7, impacts would not be reduced to less than significant. Therefore, impacts would be potentially significant and mitigation would be required.

**TABLE 3.6-9
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	Approximate PPV (in/sec) at 25 feet	Approximate RMS (VdB) at 25 feet
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

SOURCE: FTA, 2006.

The offsite structures are considered to be non-engineered timber structures. The vibration impact threshold for the offsite structures would be 0.2 in/sec PPV. The PPV level of a large bulldozer at 25 feet would be 0.089 in/sec PPV. In order to exceed 0.2 in/sec PPV, a large bulldozer needs to be as close as 15 feet from the offsite structures. The closest offsite structure to the Project site is located approximately 25 feet away. Therefore, Project-related vibration levels of 0.2 in/sec PPV, or greater, would not be experienced at offsite structures and impacts would be less than significant.

Human Annoyance

Construction-related vibration could annoy people within a nearby building. The vibration impact threshold for human annoyance at a residential structure is 78 VdB. In order to exceed 78 VdB, a large bulldozer would need to be located as close as 50 feet from the structures. As stated above, the nearest residential structures are located approximately 25 feet from the Project site. Therefore, Project-related vibration levels of 78 VdB, or greater, could be experienced at offsite structures. Although the proposed Project would require compliance with SC-N-4 and SC-N-7, impacts would not be reduced to less-than-significant levels and mitigation would be required.

Construction-related vibration could cause annoyance to on-site students while class is in session. The vibration impact threshold for human annoyance within classrooms is 84 VdB, considering the sensitivity would be similar to an office environment as presented in Table 3.6-2. In order to exceed 84 VdB, a large bulldozer would need to be located as close as 30 feet from classrooms. Given the configuration of the Project site, it would be possible for construction equipment to be within 30 feet from classrooms, therefore this impact would be considered potentially significant. Although the proposed Project would require compliance with SC-N-4 and SC-N-7, impacts would not be reduced to less-than-significant levels and mitigation would be required.

Operation

Once construction activities have been completed, there would be no sources of vibration at the Project site. Therefore, no impact would occur.

Significance Determination

Potentially Significant

Mitigation Measures

Implementation of the following mitigation measure is required to reduce impacts related to structural damage during construction:

NOISE-2: To avoid structural damage, when the construction equipment is within 15 feet of existing school buildings, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.

Implementation of the following mitigation measure is required to reduce impacts related to human annoyance:

NOISE-3: In the event that construction activity would occur within 30 feet of occupied classrooms or residences, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.

Significance after Mitigation

After implementation of Mitigation Measure NOISE-2, impacts related to structural damage by vibration would be less than significant. This is because vibrational energy from smaller construction equipment (less than 300 horsepower) at distances within 15 feet would be below the threshold of 0.2 in/sec.

After implementation of Mitigation Measure NOISE-3, impacts related to human annoyance from vibration would be reduced. This is because smaller construction equipment (less than 300 horsepower), at distances within 30 feet of occupied classrooms and/or residences, would generate vibrational velocity levels that would not trigger human annoyance. For instance, a small bulldozer, at a distance of 25 feet, would generate vibration velocity levels of approximately 58 (VdB), which is below the ground-borne vibration criteria regarding human annoyance of 84 (VdB). Therefore, impacts would be less than significant with respect to human annoyance from vibration.

Permanent Increase in Ambient Noise Levels

Impact 3.6-3 The Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

As previously described in the discussion for Impact 3.6-1, during operation, the proposed Project would not result in a 3 dBA increase in noise over existing ambient conditions. Therefore, impacts would be less than significant with respect to permanent increases in ambient noise levels.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than Significant

Temporary Increase in Ambient Noise Levels

Impact 3.6-4 The Project would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

The proposed Project would be expected to result in temporary increases in ambient noise levels during construction. However, implementation of SC-N-8 and SC-N-9 would reduce noise levels at neighboring residential receptors R2, R3, and R4, not exceeding a 5 dBA increase over ambient levels. With implementation of SC-N-8 and Mitigation Measure NOISE-1, construction noise would not exceed the on-campus exterior noise threshold for on-site classrooms while class is in session. With

respect to receptor R1, on-site construction noise would result in an ambient noise increase greater than 5 dBA. Therefore, impacts would be significant and unavoidable with respect to temporary increases in ambient noise levels at adjacent sensitive uses located to the east of the Project site.

Mitigation Measures

Mitigation measures NOISE-1.

Significance Determination

Significant and Unavoidable

3.6.6 Cumulative Impact Analysis

As an active school campus, Burroughs MS is anticipated to have ongoing maintenance activities that would occur throughout the Campus. However, subsequent projects on the Campus would not have the same scope, or scale, associated with this Project and would generate little or no construction noise. In addition, the District has more than 22 comprehensive modernization, upgrade, or new development projects planned for campuses located within the District's boundaries but none of these would occur within one mile of the Campus. No other construction activities would occur on the Campus, other than activities described and analyzed herein, that would contribute to a cumulative construction noise environment. The Project site is located within the Wilshire Community Plan Area. There are several mixed-use developments, residential developments, retail developments, and the LACMA renovation project within approximately 2 miles of the Project site. However, there are no ongoing or reasonably foreseeable projects located within 500 feet of the Project site. Therefore, because the 2006 City of Los Angeles CEQA Thresholds Guide (LA CEQA Thresholds Guide) establishes the screening criterion of 500 feet for noise sensitive uses, the cumulative construction and operational noise and vibration impacts would be less than significant.

3.6.7 References

California Code of Regulations, Title 5. Education, Division 1. California Department of Education, Chapter 13. School Facilities and Equipment, Subchapter 1. School Housing, Article 2. School Sites, 14010. Standards for School Site Selection. Available: [https://govt.westlaw.com/calregs/Document/I8037DA60D48011DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/I8037DA60D48011DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)). Accessed September 2017.

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3.7 Transportation and Circulation

This section provides an assessment of potential impacts related to transportation and traffic that could result from implementation of the Project. Potential impacts addressed in this section are associated with conflicts with a plan proposed, ordinance or policy establishing measures of effectiveness for the performance of the circulation system; introduction of safety/risk elements related to traffic hazards, and emergency vehicle access; and conflicts with adopted plans related to alternative transportation modes (transit, pedestrian, bicycle). The analysis in this section is primarily based on the *John Burroughs Middle School Comprehensive Modernization Traffic and Pedestrian Safety Analysis*, which is included as Appendix J of this EIR.

LAUSD received scoping comments (Appendix A) regarding increases in traffic, potential road closures, student drop-off/pick-up traffic, circulation along McCadden Place. These comments are addressed in this section.

3.7.1 Environmental Setting

Vehicular access for the Project site is provided by a series of local and regional roads. The roads that would be used by Project-related traffic (construction workers and trucks) are anticipated to be Wilshire Boulevard and West 6th Street (four-lane arterial roads), McCadden Place (a two-lane local street), and Interstates 10 and 110 (regional freeways, located approximately two miles south of, and four miles east of, the Project site, respectively). The street intersections on the expected haul routes where project construction-related truck traffic would turn generally are controlled by traffic signals (the exception being the side-street stop-controlled intersection of Wilshire Boulevard and McCadden Place). Characteristics of the existing roadway system in the project vicinity are shown in **Table 3.7-1**.

**TABLE 3.7-1
STUDY AREA ROADWAY SYSTEM**

Roadway	Type	Number of Travel Lanes	Sidewalks	Bicycle Lanes
McCadden Place	Local	2	Yes	No
Wilshire Boulevard	Arterial	4	Yes	No
West 6 th Street	Arterial	4	Yes	No

Existing traffic counts were obtained by Wiltec USA in December 2016 for McCadden Place. Data available from LADOT was used to determine the daily traffic volumes on Wilshire Boulevard and West 6th Street:

- McCadden Place = 3,851 vehicles per day
- Wilshire Boulevard = 33,873 vehicles per day
- West 6th Street = 21,712 vehicles per day

Although roadway and traffic characteristics (e.g., parking, traffic signals) affect the carrying capacity of roadways, for transportation planning purposes, two-lane roadways (like McCadden Place) have the capacity to accommodate about 15,000 vehicles per day; and the carrying capacity of four-lane arterials (like Wilshire Boulevard and West 6th Street) ranges up to 40,000 vehicles per day. As such, the volume-to-capacity (v/c) ratios of the above-cited area roads are as follows:

- McCadden Place = 0.257 (3,851 / 15,000)
- Wilshire Boulevard = 0.847 (33,873 / 40,000)
- West 6th Street = 0.543 (21,712 / 40,000)

Students, faculty and staff can currently travel to school using public transit routes, bicycles, and by walking. There are sidewalks on all streets surrounding the school. In addition, LAUSD encourages ride-sharing programs for students and teachers, as well as riding bicycles to school. Transit service to the Project site is provided by Metro, which operates Bus Line 20 on Wilshire Boulevard (nearest stop on the corner of Wilshire Boulevard and McCadden Place). Metro buses operating on Wilshire Boulevard, including Metro Rapid 720 that does not stop in front of John Burroughs Middle School, travel in exclusive bus-only curb lanes.

3.7.2 Regulatory Setting

State

There are no state regulatory transportation plans or programs that are applicable to potential impacts of the proposed Project's temporary construction-period activities. As described below in Section 3.7.5, because the proposed Project would not increase capacity for enrollment or staff at the school, there would be no permanent increase in traffic generated by the Project and no permanent (ongoing) transportation effects caused by the Project (i.e., after construction is complete).

Regional

There are no regional regulatory transportation plans or programs that are applicable to potential impacts of the proposed Project's temporary construction-period activities. As described below in Section 3.7.5, because the proposed Project would not increase capacity for enrollment or staff at the school, there would be no permanent increase in traffic generated by the Project and no permanent (ongoing) transportation effects caused by the Project (i.e., after construction is complete).

Local

City of Los Angeles Traffic Study Policies and Procedures. The significance of potential Project-generated traffic impacts on roadways under the jurisdiction of the City of Los Angeles is determined based on criteria established by that jurisdiction. **Table 3.7-2** summarizes the allowable Project-related increases in volume-to-capacity (v/c) ratio.

**TABLE 3.7-2
ALLOWABLE PROJECT-RELATED INCREASES IN V/C RATIO**

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.701 – 0.800	Equal to or greater than 0.040
D	> 0.801 – 0.900	Equal to or greater than 0.020
E	> 0.901 – 1.000	Equal to or greater than 0.010
F	Greater than 1.00	Equal to or greater than 0.010

SOURCE: Los Angeles Department of Transportation. Transportation Impact Study Guidelines. December 2016

LAUSD School Design Guide. The 2018 LAUSD School Design Guide includes guidelines for vehicular access, parking, and pedestrian safety (LAUSD, 2018). Parent drop-off/pick-up areas, bus loading areas, and parking areas are required to be separated to allow safe student access. Parent drop-off/pick-up areas shall also be located adjacent to the main entry gate of the school. Additionally, parent and bus loading areas shall be separated to minimize traffic conflicts.

3.7.3 Thresholds of Significance

For the purposes of this EIR, LAUSD has used the checklist questions in Appendix G of the CEQA Guidelines as the significance criteria, along with applicable thresholds of significance established by the local jurisdiction (City of Los Angeles), to determine whether the Project would have a significant environmental impact regarding Transportation and Traffic.¹ Based on the size and scope of the Project and the potential for impacts, the criteria identified below are included for evaluation in this EIR. Please see Section 4.1, *Impacts Found Not to Be Significant*, of this EIR, for a discussion of other issues associated with the evaluation of Transportation and Traffic where the characteristics of the Project made it clear that effects would not be significant and further evaluation in this section was not warranted.

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit (see Impact 3.7-1, below);
- b) Conflict with an applicable congestion management program including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways (see Initial Study section 4.17 in Appendix A of this Draft EIR);

¹ Although the City of Los Angeles is in the process of adopting a shift in vehicle traffic measurement methodology from LOS to VMT, the adoption would occur subsequent to the circulation of the NOP for this project. Additionally, the project would not change the number of vehicle trips during operation.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels, or a change in location that results in substantial safety risks (see Initial Study section 4.17 in Appendix A of this Draft EIR);
 - d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections), or incompatible uses (e.g., farm equipment) (see Impact 3.7-2, below);
 - e) Result in inadequate emergency access (see Impact 3.7-3, below); or
 - f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities (see Impact 3.7-4, below).
-

Title 5 of the California Code of Regulation Section 14010 incorporates health and safety factors provided in the California Department of Education's (CDE) School Site Selection and Approval Guide. In combination with the thresholds provided in the State CEQA Guidelines, these thresholds (Thresholds "h" through "i") ensure that schools provide a safe learning environment for students. In accordance with the School Site Selection and Approval Guide, the Project would have a significant impact related to transportation and circulation if it would:

- g) Substantially increase vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses (see Impact 6.7-5, below);
 - h) Create unsafe routes to schools for students walking from local neighborhoods (see Impact 6.7-6, below); or
 - i) Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard.
-

3.7.4 Methodology

It is anticipated that campus operations would be more efficient or would be otherwise improved following implementation of the proposed Project, which would result in new and upgraded facilities, and would not result in substantive changes to the existing operation of the school. Project implementation would not provide for an increase in the number of students attending the school or staff required to operate the school. As such, operational activities associated with the proposed Project are not additive to those operations analyzed in the Program EIR and would not result in substantial changes that have not previously been identified in the Program EIR. Specifically related to the traffic analysis presented herein, there would be no permanent increase in traffic generated by the school. Therefore, this analysis primarily focuses on potential impacts associated with temporary increases in traffic associated with Project construction activity. It also evaluates potential impacts associated with the proposed relocation of the school bus drop-off/pick-up zone, two new driveways on Wilshire Boulevard for the expanded south parking lot, and the relocation of the existing driveway on McCadden Place.

This analysis estimates construction trip generation using forecasts of construction workers and trucks provided by LAUSD; evaluates the effect of Project construction-generated traffic on traffic flow

conditions on area roads, based on the general carrying capacities of two-lane and four-lane roadways; and assesses Existing with Project pedestrian safety conditions.

Standard Conditions

Projects implemented under the Program EIR are anticipated to have less-than-significant impacts related to transportation and traffic within the LAUSD service area with the incorporation of Standard Conditions (SCs). Applicable SCs related to Project-specific impacts to transportation and traffic and pedestrian safety are provided in **Table 3.7-3**.

**TABLE 3.7-3
TRANSPORTATION AND TRAFFIC STANDARD CONDITIONS OF APPROVAL**

Applicable SCs	Description
SC-T-2	<p>LAUSD shall implement the applicable vehicular access and parking design guidelines during the planning process.</p> <p>School Design Guide</p> <p>Vehicular access and parking shall comply with the Vehicular Access and Parking guidelines of the School Design Guide. The Design Guide contains the following regulations related to traffic:</p> <ul style="list-style-type: none"> • Parking Space Requirements • General Parking Guidelines • Vehicular Access and Pedestrian Safety • Parking Structure Security
SC-T-4	<p>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>

3.7.5 Impact Analysis

Impact 3.7-1: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Construction

Based on information provided by LAUSD, the proposed Project would require a maximum of 50 workers onsite on a school day and a maximum of 150 workers onsite on a summer day, generating a maximum of 125 one-way trips per school day and a maximum of 375 one-way trips on a summer day.² The maximum number of daily truck trips during the summer would be 100 one-way trips per

² Daily trips by construction workers would consist of inbound and outbound commute trips (conservatively assumed to be each worker in their own vehicle), plus midday trips (lunch or other errands) by about 25% of the workers.

day during soil removal activity. Maximum one-way truck trips during the school day would range from 2 to 20. It is anticipated that truck trips would be spread over the daily work hours. Conservatively assuming that the up to 395 one-way vehicle trips (375 worker trips plus 20 truck trips) would travel on all of the study roads during the school year, the resulting v/c ratios under Existing with Project conditions would be as follows:

- McCadden Place = 0.283 (4,246 / 15,000)
- Wilshire Boulevard = 0.857 (34,268 / 40,000)
- West 6th Street = 0.553 (22,107 / 40,000)

As shown, all of the study roadways would continue to operate with a v/c ratio of less than 0.900 on a daily basis under the Existing plus Project conditions. **Table 3.7-4** summarizes the allowable project-related increases in v/c ratio and **Table 3.7-5** summarizes the project-related increases in v/c ratio. For all study roadways, the Project-caused increase in v/c ratio on the study area roadways would not exceed the thresholds of significance established by LADOT. Therefore, there would be no significant traffic impacts at the study area roadways with the addition of Project construction traffic (the roadways would continue to accommodate traffic within the roadways' carrying capacity).

**TABLE 3.7-4
 ALLOWABLE PROJECT-RELATED INCREASES IN V/C RATIO**

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.701 – 0.800	Equal to or greater than 0.040
D	> 0.801 – 0.900	Equal to or greater than 0.020
E	> 0.901 – 1.000	Equal to or greater than 0.010
F	Greater than 1.00	Equal to or greater than 0.010

SOURCE: Los Angeles Department of Transportation. Transportation Impact Study Guidelines. December 2016

**TABLE 3.7-5
 PROJECT-RELATED INCREASES IN V/C RATIO**

Roadway	Existing V/C	Existing Plus Project V/C	Project-Related Increase in V/C	Significant?
McCadden Place	0.257	0.283	0.026	No
Wilshire Boulevard	0.847	0.857	0.010	No
West 6 th Street	0.543	0.553	0.010	No

LAUSD requires its contractors to submit a construction worksite traffic control plan to LADOT for review prior to construction, as required by SC-T-4. Elements of the traffic control plan would include, but not limited to, restricting construction-related trucks to off-peak commute periods, and provision of flaggers to assist or direct traffic flows to and from the local streets. A “haul route permit” may be required and obtained from LADOT. Therefore, the Project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. As such, impacts would be less than significant.

Pedestrian access to and from the school during construction would be minimally altered, as the majority of the construction would occur within the Campus. Any temporary changes to pedestrian access during construction would be completed as outlined in a worksite traffic control plan for the proposed project (per SC-T-4). The modified parking lots would be designed per the requirements of LAUSD and LADOT. Construction vehicles accessing the campus would avoid drop-off and pick-up during the start and end of the school day. Further construction-related access and traffic specifics would be coordinated with the campus administrators, LAUSD's Transportation Branch, and Office of Environmental Health and Safety and will be detailed in the worksite traffic control plan.

The performance of vehicular, pedestrian, bicycle, or transit travel would not be significantly impacted by the proposed Project construction. Impacts would be less than significant.

Operations

The proposed Project would not increase the existing number of students or staff, and therefore it would not generate new (permanent) traffic to the study area. The proposed Project would not include changes to existing roadways, and would be designed to enhance path of travel, accessibility, and other pedestrian travel throughout the campus. The Project would increase the number of onsite parking spaces and would alter the location of access driveways for the onsite parking spaces. Accommodation for Americans with Disabilities Act (ADA)-compliant access for student pick-up/drop-off would be provided in the improved northern parking lot.

The Project includes two new vehicular access driveways along Wilshire Boulevard that would permit right-in/right-out access from Wilshire Boulevard, and a relocated driveway on McCadden Place from approximately 250 feet north of Wilshire Boulevard to approximately 100 feet north of Wilshire Boulevard. School bus loading would be prohibited along the McCadden Place frontage of the school and relocated to the expanded southern parking lot. With the elimination of school bus loading on McCadden Place, more curb space would be allocated to passenger vehicle loading and unloading, alleviating existing loading conflicts and double-parking along McCadden Place, improving circulation along McCadden Place and Wilshire Boulevard. The bus loading area within the southern parking lot would be of sufficient length to accommodate all school buses and would not result in internal queuing that would spillover onto Wilshire Boulevard or block access to the parking lot stalls. The addition of two ingress/egress points on Wilshire Boulevard and the relocation of school bus loading to the southern parking lot would improve circulation in the immediate vicinity of the site.

The westbound LA Metro Line 20 has bus stop shelters on either side of John Burroughs Middle School at the northeast corner of Wilshire Boulevard / McCadden Place (westbound) and the northwest corner of Wilshire Boulevard / Keniston. The introduction of two new driveways on Wilshire Boulevard would not require the removal or relocation of the bus stops and would therefore not affect the effectiveness of transit service.

Pedestrian, bicycle, or transit travel from the proposed Project operations would thus be less than significant because they would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-2: The Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections), or incompatible uses (e.g., farm equipment).

The proposed Project would not result in any hazards due to design features or incompatible uses. The proposed Project would be implemented at an existing school site and would not directly or indirectly alter the configuration of the existing street system (including crosswalks or traffic control devices at intersections). In addition, traffic generated during Project construction would be generally compatible with the mix of vehicle types (autos and trucks) currently using the regional and local roadways surrounding the campus.

The Project includes two new vehicular access driveways along Wilshire Boulevard that would permit right-in/right-out access from Wilshire Boulevard, and a relocated driveway on McCadden Place from approximately 250 feet north of Wilshire Boulevard to approximately 100 feet north of Wilshire Boulevard. The design of the Project (e.g., access for the expanded on-campus parking lots) would include the use of standard engineering practices, such as standard driveway widths and turning radii and the provision of adequate line of sight to avoid design elements that could result in hazards. In addition, LAUSD has contacted LADOT regarding the addition of two right-in/right-out access driveways on Wilshire Boulevard. LADOT has provided preliminary approval of the location of the proposed driveways, provided that they remain right-in/right-out only.

The westbound LA Metro Line 20 has bus stop shelters on either side of John Burroughs Middle School at the northeast corner of Wilshire Boulevard / McCadden Place (westbound) and the northwest corner of Wilshire Boulevard / Keniston. The introduction of two new driveways on Wilshire Boulevard may conflict with buses operating in the exclusive bus-only lane along the Wilshire Boulevard frontage of the Project site. Vehicles (e.g., school buses and passenger vehicles) accessing the Project site would primarily do so before and after school instruction hours. Potential sight distance obstructions may occur for motorists seeking to exit the project site onto Wilshire Boulevard when a bus is loading at either of the two stops. However, the proposed two new driveways would be limited to right-in/right-out access which would limit potential conflicts leading to collisions³ and would limit the delays that would occur if left-turns out of the site were allowed. As stated above, all Project driveways would be designed to provide adequate turning radii and line of sight per LADOT standards.

For the above-stated reasons, the proposed Project would not substantially increase hazards due to a design feature or incompatible uses. As such, impacts from the Project would be less than significant.

³ U.S. Department of Transportation Federal Highway Administration. Access Management in the Vicinity of Intersections. https://safety.fhwa.dot.gov/intersection/other_topics/fhwas10002/#s11. Accessed July 2018

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-3: The Project would not result in inadequate emergency access.

The Project site is located in a developed urban area with an existing roadway network that accommodates the movements of emergency vehicles that travel in the area. Projects are required to provide emergency vehicle access for the Los Angeles Fire Department (LAFD). Conformance to District policies and local ordinances would ensure that adequate access would be maintained. Per SC-T-4, LAUSD requires its contractors to submit a construction worksite traffic control plan (including strategies to maintain emergency access at all times) to LADOT for review prior to construction. Staging areas for construction would be located on school property; therefore, emergency access to the site would not be adversely affected during Project construction.

The Project includes two new vehicular access driveways along Wilshire Boulevard that would permit right-in/right-out access from Wilshire Boulevard, and a relocated driveway on McCadden Place. The design of the project (e.g., access for the expanded on-campus parking lots) would include the use of standard engineering practices, such as standard driveway widths and turning radii and the provision of adequate line of sight to avoid design elements that could result in hazards and would ensure that emergency vehicle access for the LAFD is maintained. Conformance with District policies and local ordinances would ensure that adequate access would be maintained.

The proposed Project thus would not result in inadequate emergency access during construction or operations. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-4: The Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance, or safety, of such facilities.

The Program EIR includes SCs for minimizing impacts to pedestrian safety in the existing environment in areas where future Projects would be implemented under the SUP. The applicable SC related to Project-specific pedestrian safety impacts is provided in Table 3.7-3.⁴

Projects implemented under the Program EIR are anticipated to have less-than-significant impacts to pedestrian safety within the LAUSD service area. The Project-specific analysis provided below determined that implementation of the proposed Project would also have less-than-significant impacts to pedestrian safety.

In general, adopted policies, plans, and programs pertaining to public transit, bicycle, and pedestrian travel are intended to be used for long-term planning purposes and do not apply to construction activities. The proposed Project would not directly or indirectly eliminate alternative modes of transportation, transportation corridors, or facilities (e.g., bus stops). Further, the proposed Project would not prevent the use of any roads on which public transit routes operate, school enrollment would remain the same following the Project as stated above, and there would be no permanent increase in traffic generated by the school.

Students, faculty, and staff can currently travel to school using public transit routes, bicycles, and by walking. There are sidewalks on all streets surrounding the school. In addition, LAUSD encourages ride-sharing programs for students and teachers, as well as walking and riding bicycles to school. The westbound LA Metro Line 20 has bus stop shelters on either side of John Burroughs Middle School at the northeast corner of Wilshire Boulevard / McCadden Place (westbound) and the northwest corner of Wilshire Boulevard / Keniston Avenue.

During construction activities, the Project may affect sidewalk accessibility around the John Burroughs Middle School campus. However, any effects on sidewalk accessibility would be temporary (limited to construction), and the construction contractor would be required to ensure safe alternative routes are available. Therefore, pedestrian access to the school during construction would be minimally altered, and as required by SC-T-4, contractors would be required to submit a construction worksite traffic control plan (including strategies to manage pedestrian and bicycle circulation) to LADOT for review prior to construction.

LAUSD would implement SC-T-2, which requires that the parking areas be designed to meet the District's School Design Guidelines by ensuring that potential hazards or incompatible uses are avoided. The Project would alter vehicle access for the campus by introducing two new driveways on Wilshire Boulevard and relocating the driveway on McCadden Place to approximately 100 feet north of the Wilshire Boulevard. The potential hazard associated with these new driveways and its potential conflict point (where the driveway crosses the sidewalk) would not cause a significant pedestrian safety

⁴ Pedestrian Safety Standard Conditions of Approval SC-PED-1 through SC-PED-4 would not apply to the pedestrian safety analysis for the proposed Project because the Trigger for Compliance is if the Project would increase student capacity by more than 25% or 10 classrooms.

impact because all driveways would be designed with adequate widths, turning radii, and the provision of adequate line of sight. In addition, with the elimination of school bus loading on McCadden Place, more curb space would be allocated to passenger vehicle loading and unloading, alleviating existing loading conflicts, double-parking along McCadden Place, and potential safety hazards associated with students crossing McCadden Place.

For these reasons, the Project would have a less-than-significant impact on the performance and safety of public transit, bicycle, or pedestrian facilities.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-5: The Project would not substantially increase vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses.

As discussed under Impact 3.7-2, the proposed Project would not result in any hazards due to design features or incompatible uses. The proposed Project would be implemented at an existing school site, would not directly or indirectly alter the configuration of the existing street system (including crosswalks or traffic control devices at intersections), would generate construction traffic that is generally compatible with the mix of vehicle types (autos and trucks) currently using the regional and local roadways surrounding the campus, and the proposed new and relocated driveways would include the use of standard engineering practices, such as standard driveway widths and turning radii and the provision of adequate line of sight to avoid design elements that could result in hazards. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-6: The Project would not create unsafe routes to schools for students walking from local neighborhoods.

The proposed Project would be implemented at an existing campus and would not directly or indirectly eliminate sidewalks, crosswalks, or traffic control devices at intersections. Therefore, the Project would not increase potential safety hazards for students. Per SC-T-4, LAUSD requires its contractors to submit a construction worksite traffic control plan (including strategies to safely accommodate students walking from local neighborhoods) prior to construction. Implementation of a construction worksite traffic control plan would ensure safety conditions for students would be maintained or improved

during construction activities. Therefore, the proposed Project would not create unsafe routes to students walking from local neighborhoods. As such, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

Impact 3.7-7: The Project would not be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard.

The I-110 freeway is located approximately four miles east of the Project Site and the I-10 freeway is located approximately two miles south of the Project Site. The proposed Project would be implemented at an existing campus, which is bounded by Wilshire Boulevard (a four-lane arterial road), West 6th Street (a four-lane arterial road), and McCadden Place (a two-lane local street). There are sidewalks on each street adjacent to the Project Site. The McCadden Place/Wilshire Boulevard intersection is unsignalized with stop control on the southbound McCadden approach to Wilshire. The McCadden Place/West 6th Street intersection is signalized with pedestrian crossing signals and school crosswalk pavement markings on northern, western, and southern legs of the intersection. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

3.7.6 Cumulative Impacts

The geographic scope for cumulative impacts to transportation and traffic is focused on projects (currently under construction, approved, or reasonably foreseeable) located such that traffic generated by those projects would use one or more of the area roadways that would be used for the proposed Project during the anticipated construction period and would produce related transportation and traffic impacts. The temporal context for the cumulative transportation and traffic impacts includes the proposed Project's construction phases. The geographic scope and temporal context were selected because the potential for cumulative transportation impacts exists where there are multiple projects proposed in an area that have overlapping construction schedules and/or project operations that could affect similar resources. Projects with overlapping construction schedules could result in a substantial contribution to increased traffic levels and roadway hazards throughout the surrounding roadway network.

The temporary and short-term construction-related traffic impact associated with the proposed Project would be related to truck routes and construction area access routes used by proposed Project workers and material haulers, and potential increased traffic safety hazards. In conjunction with other projects occurring within the Project area, significant cumulative impacts could occur if construction activities (i.e., truck and worker trip-generating activities) for those other projects were to overlap (in time and place) with the proposed Project. Pursuant to SC-T-4, LAUSD shall require its contractors to submit a construction worksite traffic control plan to the City of Los Angeles for review prior to construction. The plan shall show the location of any haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. LAUSD shall encourage its contractor to limit construction-related trucks to off-peak commute periods, avoiding cumulatively impacts by having vehicle trips scheduled for times where other vehicles would not be on the road. As such, the proposed Project's contribution to any transportation and traffic-related cumulative impacts during construction would not be cumulatively considerable and the associated cumulative impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance Determination

Less than significant impact.

3.7.7 References

- County of Los Angeles Metropolitan Transit Authority (Metro), 2018. Maps for Bus Route 20, effective June 24, 2018. Available at <https://www.metro.net/riding/maps/>.
- Los Angeles Department of Transportation (LADOT), 2014, *Traffic Study Policies and Procedures*, August.
- Los Angeles Unified School District (LAUSD). 2018. *School Design Guide*. February.
- U.S. Department of Transportation Federal Highway Administration. Access Management in the Vicinity of Intersections. https://safety.fhwa.dot.gov/intersection/other_topics/fhwas10002/#s11. Accessed July 2018

CHAPTER 4

Other CEQA Considerations

This chapter presents the evaluation of other types of environmental impacts required by CEQA that are not covered within the other chapters of this Draft EIR. The other CEQA considerations include environmental effects that were found not to be significant, significant irreversible environmental changes that would be caused by the Project, growth-inducing impacts, and significant and unavoidable adverse impacts.

4.1 Effects Found not to be Significant

LAUSD, through the scoping process, determined the proposed Project has the potential to cause, or result in, significant environmental impacts, and warranted further analysis, public review, and disclosure through the preparation of an EIR. The Notice of Preparation (NOP), dated February 16, 2018, was forwarded to the California Office of Planning and Research, State Clearinghouse (SCH), and was circulated for public review and comment. The State Clearinghouse established the public comment period for the NOP as February 16, 2018 through March 20, 2018.¹ The assigned State Clearinghouse reference for the Project is SCH No. 2018021052. The NOP and NOP responses are presented in Appendix A of this Draft EIR.

The Initial Study prepared for the Project, and circulated on February 16, 2018, determined that the impacts listed below would not occur, or would be less than significant; therefore, these topics have not been further analyzed in this Draft EIR. Please refer to Appendix A (Initial Study) for explanations of the basis for these conclusions.

Aesthetics

- **Scenic Vista** – No Impact
- **Scenic Resources** – No Impact

¹ This Draft EIR follows the CEQA Guidelines Appendix G checklist in use prior to the release of the updated Guidelines which became effective on December 28, 2018. The updated Guidelines include two new topic areas, Energy and Wildfires.

Notwithstanding the use of the former Appendix G checklist, it should be noted that this Draft EIR does address energy use, refer to Section 3.4, Energy. On the topic area of Wildfires, the proposed Project would have no impact as the Project site is not located in or near a state responsibility area or land classified as very high fire severity zone (CAL FIRE, 2019).

Agriculture and Forestry Resources

- **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance** – No Impact
- **Williamson Act Contract** – No Impact
- **Timberland** – No Impact
- **Forest Land** – No Impact
- **Other Changes** – No Impact

Air Quality

- **Odors** – Less Than Significant Impact

Biological Resources

- **Candidate, Sensitive, or Special Status Species** – No Impact
- **Riparian Habitat/Sensitive Natural Community** – No Impact
- **Wetlands** – No Impact
- **Wildlife Migration** - Less Than Significant Impact
- **Local Policies/Ordinances Protecting Biological Resources** – Less Than Significant Impact
- **Conservation Planning** – No Impact

Cultural Resources

- **Human Remains** – Less Than Significant Impact

Geology and Soils

- **Alquist-Priolo Fault Rupture** – No Impact
- **Seismic Ground Shaking** – Less Than Significant Impact
- **Ground Failure including Liquefaction** – No Impact
- **Landslides** – No Impact
- **Erosion or Loss of Topsoil** – Less Than Significant Impact
- **Unstable Geologic Unit** – Less Than Significant Impact
- **Expansive Soils** – Less Than Significant Impact
- **Septic Tanks** – No Impact

Greenhouse Gas Emissions

- **Greenhouse Gas Emissions** – Less Than Significant Impact
- **Greenhouse Gas Emission Plans, Policies, and Regulations** – Less Than Significant Impact

Hazards and Hazardous Materials

- **Transport, Use, or Disposal of Hazardous Materials** – Less Than Significant Impact
- **Hazardous Materials Site** – No Impact
- **Airport Land Use Plan** – No Impact
- **Private Airstrips** – No Impact
- **Emergency Planning** - Less Than Significant Impact
- **Wildland Fires** – No Impact

Hydrology and Water Quality

- **Water Quality Standards** – Less Than Significant Impact
- **Groundwater Recharge** – Less Than Significant Impact
- **On- or Off-site Erosion or Siltation** – Less Than Significant Impact
- **On- or Off-site Flooding** – Less Than Significant Impact
- **Runoff** – Less Than Significant Impact
- **Water Quality** – Less Than Significant Impact
- **100-Year Flooding and Housing** – No Impact
- **Redirect 100-Year Flood Flows** – No Impact
- **Dam or Levee Failure** – Less Than Significant Impact
- **Inundation by seiche, tsunami, or mudflow** – Less Than Significant Impact

Land Use and Planning

- **Divide an Established Community** – No Impact
- **Conflict with Applicable Plans and/or Policies** – No Impact
- **Conflict with Habitat Conservation Plans** – No Impact

Mineral Resources

- **Regional Mineral Resources** – No Impact
- **Local Mineral Resources** – No Impact

Noise

- **Airport Land Use Plan** – No Impact
- **Private Airstrips** – No Impact

Population and Housing

- **Population Growth** – No Impact
- **Displacement of Housing** – No Impact
- **Displacement of People** – No Impact

Public Services

- **Fire Protection** – Less Than Significant Impact
- **Police Protection** – Less Than Significant Impact
- **Schools** - Less Than Significant Impact
- **Parks** – No Impact
- **Other Public Facilities** – No Impact

Recreation

- **Accelerated Deterioration of Existing Facilities** – No Impact
- **Construction or Expansion of Recreational Facilities Causing Adverse Physical Effect on Environment** – Less Than Significant Impact

Transportation and Traffic

- **Congestion Management Program** – No Impact
- **Air Traffic** – No Impact

Tribal Cultural Resources

- **Tribal Cultural Resources** – No Impact

Utilities

- **Wastewater Treatment Requirements** – Less Than Significant Impact
- **Water or Wastewater Treatment Facilities** – Less Than Significant Impact
- **Stormwater Drainage Facilities** – Less Than Significant Impact
- **Water Supplies** – Less Than Significant Impact
- **Inadequate Wastewater Treatment Capacity** – Less Than Significant Impact
- **Landfill Capacity** – Less Than Significant Impact
- **Solid Waste Regulations** – Less Than Significant Impact

4.2 Significant Environmental Effects

Table ES-1 (*Summary of Environmental Effects and Mitigation Measures*), which is contained in Chapter ES, *Executive Summary*, and Section 3.1 through Section 3.7 of this Draft EIR provide a comprehensive identification of the Project's environmental effects, including the level of significance both before and after mitigation.

4.3 Significant Environmental Effects That Cannot Be Avoided if the Project is Implemented

CEQA Guidelines Section 15126.2(b) requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Development of the Project would result in significant and unavoidable Project-related impacts related to short-term construction noise. Section 3.1 through Section 3.7 of this Draft EIR provide a comprehensive identification of the Project's environmental effects, including the level of significance both before, and after, mitigation.

Noise

Under the CEQA Guidelines, construction noise impacts are considered potentially significant when construction noise levels exceed ambient noise levels by 5 dBA, or more. Pursuant to Education Code Section 17215 and the LAUSD SUP Program EIR, the exterior noise significance threshold for school sites is 67 dBA. With regard to the adjacent residential uses located to the east of the Project site, after implementation of mufflers and sound barriers, construction noise levels would continue to exceed the applicable threshold. Other construction noise reduction techniques required to be considered by SC-N-8 and SC-N-9 include the implementation of window treatments, noise barriers, and equipment maintenance and restrictions. Although potentially feasible, these conditions would require resident consent to implement noise-control devices on private property and resident willingness to relocate during the proposed construction period and would require further coordination between LAUSD and affected residents. Therefore, for purposes of this DEIR, on-site construction activity would result in significant and unavoidable impacts with regard to the adjacent residential uses to the east of the Project site.

4.4 Significant Irreversible Changes

Pursuant to *CEQA Guidelines* Section 15126.2(c), an EIR must consider any significant irreversible environmental changes that would be caused by the proposed Project should it be implemented. Section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to ensure that such current consumption is justified.

Resources that would be permanently and continually consumed by implementation of the proposed Project include energy, water, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources, as discussed in Section 3.4, *Energy*.

4.5 Growth-Inducing Impacts

The California Environmental Quality Act (CEQA) Guidelines (Section 15126.2(d)) require that an EIR discuss the potential growth-inducing impacts of a proposed project. The CEQA Guidelines provide the following guidance for such discussion:

“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Under CEQA, growth is not considered necessarily detrimental, or beneficial.

Based on the CEQA definition above, assessing the growth-inducement potential of the proposed Project involves answering the question: “Would implementation of the proposed Project directly, or indirectly, support economic expansion, population growth, or residential construction?” Schools are one of the chief public services needed to support growth and community development. While schools play a role in supporting additional growth, it is not the single determinant of such growth. Other factors, including General Plan policies, land use plans, and zoning, the availability of solid waste disposal capacity, wastewater treatment, transportation services, and other important public infrastructure, also influence business and residential population growth. Economic factors, in particular, greatly affect development rates and locations.

Growth Projections

The State of California requires that cities plan for changes in population, housing, and employment. If growth is projected, each city must accommodate a share of the region’s anticipated growth. The Southern California Association of Governments (SCAG) forecasts three major growth indicators including population, households, and employment. These forecasts are provided in the regional transportation plans that are periodically updated by SCAG. SCAG’s 2030 forecasts for Los Angeles are based on historic and recent growth trends. The Department of City Planning refines the population and housing allocations within the City’s thirty-five communities or community plan areas (CPAs) so that the projected growth is focused towards regional and commercial centers and is consistent with the City’s General Plan Framework Element and other City policies. The SCAG

projections for population, housing units, and employment in the CPA are shown in **Table 4-1, 2040 Population, Housing, Employment Projections for the Wilshire Community Plan Area**. The population and household projections were adjusted by the Department of City Planning on a citywide level to reflect increased growth in specific regional centers and lower growth rates in other community plan areas.

According to SCAG’s demographic data, the total population of Wilshire CPA is projected to increase by 59,730 people from SCAG’s 2017 estimated population to the City of Los Angeles’ Department of City Planning’s 2040 adjusted SCAG projection. During this 33-year period, the projected population growth rate would be 20.5 percent.

The total number of housing units in Wilshire CPA is projected to increase by 26,976 dwelling units from SCAG’s 2017 estimated number of dwelling units to the City of Los Angeles’ Department of City Planning’s 2040 adjusted SCAG projection. During this 33-year period, the projected housing growth rate would be 21.7 percent.

The total number of jobs in Wilshire CPA is projected to increase by 25,373 jobs from SCAG’s 2017 estimated employment to the City of Los Angeles’ Department of City Planning’s 2040 adjusted SCAG projection. During this 33-year period, the projected employment growth rate would be 15.3 percent.

**TABLE 4-1
2040 POPULATION, HOUSING, EMPLOYMENT PROJECTIONS FOR THE WILSHIRE COMMUNITY PLAN AREA**

	2017 Estimate	2022 Projection	Plan Capacity
Population (persons)	291,817	304,464	351,547
Housing (dwelling units)	124,128	129,779	151,104
Employment (jobs)	165,328	170,778	190,701

SOURCE: Based on SCAG data prepared for the 2016 – 2040 RTP/SCS. Data was requested and received from the City of Los Angeles. The 2017 baseline estimate was determined by interpolating from data received. Compiled by ESA, 2017.

Implementation of the proposed Project would not result in substantial permanent, or even short-term, construction employment that could indirectly induce population growth by establishing new employment opportunities. The temporary construction employment opportunities are expected to be filled by workers within the local economy, and new housing for construction employees would not be required. Project implementation would not extend major infrastructure to places currently unserved by such facilities. The Project would not develop a new school on a new school site. Further, the Project would not provide additional capacity. The surrounding area is developed and served by existing infrastructure and utilities. Therefore, the Project would not be removing obstacles to growth. Based on this, the proposed Project would not have substantial direct, or indirect, growth-inducing impacts.

4.6 References

California Department of Forestry and Fire Protection (CAL FIRE), 2019. Fire Hazard Severity Zone Online Viewer. <http://egis.fire.ca.gov/FHSZ/>. Accessed March 2019.

CHAPTER 5

Alternatives

5.1 Introduction

This section addresses alternatives to the proposed Project, describes the rationale for their evaluation in the Draft Environmental Impact Report (EIR), evaluates the potential environmental impacts associated with each alternative, and compares the relative impacts of each alternative to those of the proposed Project. In addition, this section analyzes the extent to which each alternative meets the Project’s objectives identified in Chapter 2, Project Description.

The California Environmental Quality Act (CEQA) requires that an EIR consider a reasonable range of feasible alternatives (State CEQA Guidelines, Section 15126.6(a)). According to the State CEQA Guidelines, alternatives should be those that would attain most of the basic project objectives and avoid, or substantially lessen, one, or more, significant effects of the project (State CEQA Guidelines, Section 15126.6). The “range of alternatives” is governed by the “rule of reason,” which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the lead agency and to foster meaningful public participation (State CEQA Guidelines, Section 15126.6(f)).

CEQA also requires the feasibility of alternatives be considered. Section 15126.6(f)(1) states that among the factors that may be taken into account in determining feasibility are: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans and regulatory limitations; jurisdictional boundaries; and (when evaluating alternative project locations) whether the proponent can reasonably acquire, control, or otherwise have access to an alternative site. Furthermore, an EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote, or speculative, or that would not achieve the basic project objectives.

The alternatives addressed in this EIR were identified in consideration of the factors listed below.

- The extent to which the alternative could avoid, or substantially lessen, the identified significant environmental effects of the proposed Project
- The extent to which the alternative could accomplish basic objectives of the proposed Project
- The feasibility of the alternative
- The requirement of the State CEQA Guidelines to consider a “no project” alternative

CEQA Guidelines Section 15126.6(e)(1) states that a no project alternative shall also be evaluated along with its impacts. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed Project with the impacts of not approving

the proposed Project. The no project alternative analysis is not the baseline for determining whether the proposed Project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline.

5.2 Project Objectives

The LAUSD SUP includes objectives, goals, and principles that are intended to guide the development of facilities that improve student health, safety, and educational quality.

The SUP goals and principles established by the Board of Educations are as follows:

- Schools should be physically safe and secure;
- School building systems should be sound and efficient
- School facilities should align with instructional requirements and vision

Furthermore, six core objectives have been established for Comprehensive Modernization Projects undertaken under the SUP:

- The buildings that have been identified as requiring seismic upgrades must be addressed.
- The buildings, grounds and site infrastructure determined to 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 must be addressed.
- The school's reliance on relocatable buildings, especially for K-12 instruction, should be significantly reduced.
- 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 provisions of the Modified Consent Decree (MCD).
- The exterior conditions of the school site should be addressed to improve the visual appearance including landscape, hardscape, and painting.
- The interior physical conditions of classroom buildings that would otherwise not be addressed should be improved.

CEQA Guidelines Section 15124 requires an EIR to include a statement of objectives sought by the proposed Project. The objectives assist in developing the range of Project alternatives to be evaluated in the EIR. LAUSD has established the following objectives for the proposed Project:

- Objective #1: Ensure that the buildings that have been evaluated and identified as requiring seismic upgrades are addressed.
- Objective #2: Provide upgrades throughout the Campus to improve accessibility for all students and to comply with the requirements of the Americans with Disabilities Act (ADA) Title II Regulations pursuant to the District's self-evaluation and transition plan under the ADA (October 10, 2017).

- Objective #3: Provide educational facilities that meet California Department of Education (CDE) requirements and LAUSD educational specifications and design guidelines.
- Objective #4: Maximize site efficiency and outdoor playground space for students.
- Objective #5: Create a modern learning environment for students in the 21st century.
- Objective #6: Respect the historic significance of the Campus through rehabilitation.
- Objective #7: Reduce the District’s reliance on portable classrooms.
- Objective #8: Revitalize the urban forest by planting new trees and replacing aging trees and trees in poor health with native, climate-adapted species.
- Objective #9: Continue to accommodate the existing capacity and specialized needs of all programs at Burroughs Middle School, including the Gifted/High Ability Magnet Center program that is part of the District’s Integration Program.
- Objective #10: Maximize the impact of limited bond funds to provide modern and permanent instructional facilities.
- Objective #11: Reduce the amount of storm water runoff from the Campus.
- Objective #12: Improve Campus safety, supervision, and pedestrian and vehicular circulation, including emergency vehicles and personnel.
- Objective #13: Increase energy efficiency of the Campus by upgrading or replacing facilities and incorporating standards developed by the Collaborative for High Performance Schools (CHPS).

5.3 Alternatives Not Further Evaluated in This EIR

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are clearly infeasible. Alternatives that are remote, or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, Section 15126.6[f][3]).

An alternative site, or location, for the Project need not be considered when its implementation is “remote and speculative” such as the site being out of the purview of the lead agency, or beyond the control of a project applicant. Alternative sites were not selected for evaluation in this EIR. CEQA Guidelines Section 15126.6(f)(2) specifies that the key question with alternative sites is “whether any of the significant effects of the project would be avoided or substantially lessened by putting the project at another location.” The proposed Project is being implemented as part of the LAUSD SUP, which is intended to provide improvements, repairs, and maintenance to existing LAUSD schools and future school expansions and to benefit current and future students in the District. Therefore, implementation of the proposed comprehensive modernization of Burroughs Middle School at an alternative site would not be feasible and could not be implemented.

The following alternatives were initially considered, but were eliminated from further consideration in this EIR because they do not meet project objectives or were infeasible.

- **Enhanced Pedestrian Safety and Circulation Alternatives.** Under the Enhanced Pedestrian Safety and Circulation Alternative, various options to improve traffic circulation along S. McCadden Place were explored. Under this alternative, the northern portion of S. McCadden Place would be widened with a curb cut into the existing sidewalk in front of the school to accommodate some combination of a passenger loading zone, bus loading zone, and a dedicated right-turn lane onto 6th Street. These various scenarios were extensively studied by LAUSD and their traffic consultant, but were rejected due to increased pedestrian safety concerns, such as the potential for cars “double parking” during drop-off. Additionally, creating the curb cut would require removal of portions of the historic landscaping located in front of the school.
- **On-site Drop-off.** Under this alternative, student pick-up/drop-off activities would take place within the John Burroughs Middle School campus and not along McCadden Place. However, this alternative was rejected due to site constraints, as well as safety concerns (co-mingling of students and vehicular traffic)

5.4 Review of Significant Environmental Impacts

Based on the CEQA Guidelines, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include: (1) the nature of the significant impacts of the proposed Project, (2) the ability of alternatives to avoid, or lessen, the significant impacts associated with the Project, (3) the ability of the alternatives to meet the objectives of the Project, and (4) the feasibility of the alternatives.

Implementation of the proposed Project would result in a significant and unavoidable impact to noise. Implementation of the proposed Project would result in less than significant impacts with implementation of mitigation measures to the following environmental topic areas: paleontological resources and noise.

This chapter includes a discussion of whether the alternatives would lessen these impacts. As the lead agency, the District will decide whether to proceed with the proposed Project, or whether to accept, or reject, an alternative identified in this chapter. As required by the CEQA Guidelines, if the District ultimately rejects an alternative, the rationale for the rejection will be presented in the findings that are required to be made before the District certifies the EIR and takes action on the Project.

5.5 Alternatives Selected for Analysis

The No Project Alternative and two project alternative scenarios were selected for detailed analysis and represent a range of reasonable alternatives to the proposed Project. The identification of other alternatives beyond those evaluated below, and those not further evaluated as presented above in Section 5.4, is not practical given that the nature of the project – improvements to an existing school site – inherently limit the feasibility and applicability of additional alternatives. Nonetheless, to ensure a robust consideration of alternatives, the analysis does include Alternative 3 below since it was the original concept presented in the Initial Study prepared for improvements to Burroughs Middle School.

The goal for evaluating these alternatives is to identify ways to avoid, or lessen, the significant environmental effects resulting from implementation of the proposed Project, while attaining most of the Project objectives.

- Alternative 1: No Project/No Build Alternative.** The No Project/No Build Alternative assumes that the Project site would remain as it is in existing conditions. No demolition or construction of new buildings would occur on the Project site and the existing facilities and infrastructure would continue to be susceptible to seismic damage and deteriorate. The Campus would continue to rely on portable classroom buildings and existing classrooms would remain undersized and compromised without specialty spaces. Only essential repairs such as repair of portable classrooms, replacement of lead pipes, and maintenance of fire alarm and fire suppression systems would occur over time.
- Alternative 2: Reduced Project Alternative.** Under this alternative, no permanent buildings would be demolished and no new structures would be constructed. All portable classroom buildings would be removed, resulting in a reduction in enrollment at the JBMS campus. The parking lots would not be expanded or reconfigured and pick-up/drop-off and bus loading operations would remain unchanged from the existing conditions. Under this alternative, the Cafeteria-Classroom Building (Building 20) and the Shop Building (Building 9) would receive extensive seismic improvements and other upgrades. This alternative would include the modernization and renovation of the Administrative/Library/Auditorium Building (Building 1), Boy's Gymnasium Building (Building 2), Classroom Building 7, Shop Building (Building 9), and Girl's Locker Building (Building 17). Upgrades entail retrofits in compliance with American with Disabilities Act (ADA), and infrastructure upgrades such as electrical, storm drain, gas, sewer, and water. Classroom Building 4, All Purpose Building (Building 14), and Classroom Building 18 would receive fresh paint and finish upgrades.
- Alternative 3: Demolition of Shop Building and New Classroom Building Project Alternative.** This alternative (which is how the Project was originally proposed in the Initial Study) would include renovations, modernizations, and new construction at Burroughs MS; including demolition of the Shop Building, Girls' Locker Building, Cafeteria-Classroom Building, and approximately 16 classrooms located in portable (relocatable) buildings. This Alternative would include construction of a new two-story classroom building, a three-story Food Services/Multi-Purpose Room (MPR) Building, and Classroom/Lockers Building, and an Operations and Maintenance Building. The new buildings would house approximately 34 new general and specialty classrooms, and support spaces, and a new Food Services Building and Lunch Shelter. This Alternative would include modifications and remodeling of 31 classrooms.

Sections 5.6, 5.7, and 5.8 provide a comparative summary of the alternatives, including a summary of the ability of the alternatives to meet the Project objectives and a summary comparison of the potential impacts associated with the alternatives and the proposed Project.

5.6 Environmental Analysis of Alternative 1 (No Project/No Build)

The following sections provide an analysis of the No Project/No Build Alternative.

Aesthetics

Under Alternative 1, the Project site would remain in its current condition and no demolition or building construction would occur. Under the No Project Alternative, visual resources would remain unchanged since no demolition or new building construction would occur. Thus, the No Project Alternative would not result in changes to the visual character or quality of the site or surrounding area.

With regard to shade and shadow, no new shadows would be cast since no development would occur. The existing building along the eastern boundary of the Campus would continue to cast some shade offsite. There would be no shadows or shading impacts related to Alternative 1 compared to the Project's less than significant impacts. Therefore, impacts of the No Project Alternative would be less than those of the Project.

Air Quality

Alternative 1 would not result in any demolition, grading, or building construction. Campus structures as they exist currently would remain and be repaired as needed. Existing conditions would persist and no new criteria pollutant emissions associated with operation of heavy-duty construction equipment, or haul trucks, would be generated. The Project's less than significant impacts would be reduced under the No Project/No Build Alternative. Alternative 1 would result in lesser impacts than the proposed Project.

Cultural Resources

Alternative 1 would not result in any demolition, grading, or building construction. Campus structures as they exist currently would remain and be repaired as needed. Burroughs MS was given the California Historical Resources Status Code of 3S (appears eligible for NR as an individual property through survey evaluation) during the 2001-2004 Getty Surveys.¹ The Campus is considered a historical resource under CEQA. Figure 2-4 in Chapter 2, *Project Description*, shows the Campus and contributors that account for its eligibility as a historical resource. The No Project Alternative would result in no direct or indirect impacts to a historic resource because no demolition or new development would occur.

With regard to archaeological resources, the proposed Project creates a potential to encounter unknown archaeological resources during ground disturbing activities. Under the No Project/No Build Alternative, no impacts to archaeological or paleontological resources would occur, because no development would ensue that would result in new construction or ground disturbance. For this reason, impacts to cultural resources would be less under this alternative compared to the proposed Project.

Energy

Under the No Project/No Build Alternative, the existing conditions on the Project site would remain, and replacement of aging energy-inefficient infrastructure would not occur. With respect to

transportation fuels, existing operational trips would remain unchanged, as with the proposed Project. Existing conditions would persist and no installation of energy-efficient technology meeting current building codes reducing the demand of electricity, natural gas, or water would occur. Therefore, impacts to energy efficiency would be greater under this alternative compared to the proposed Project.

Hazards and Hazardous Materials

Alternative 1 would not result in any demolition, grading, soil remediation, or building construction. Existing conditions would persist, therefore, Alternative 1 would not expose the public to potential hazardous conditions associated with accidental release of hazardous substances, hazardous building materials, and/or impacted soils. Impacts related to hazardous materials would be less under this alternative compared to the proposed Project.

Noise

Alternative 1 would not result in any demolition, grading, or building construction. Existing conditions would continue and no changes to ambient noise, whether permanent, periodic, or temporary, would occur. In addition, because no construction activity would occur, the construction noise and vibration associated with the proposed Project would not occur. The significant and unavoidable construction noise impacts associated with the proposed Project would not occur under the No Project/No Build Alternative. Therefore, impacts under this alternative would be less than those of the proposed Project.

Transportation and Traffic

Under the No Project/No Build Alternative, existing site conditions would remain unchanged, and there would be no changes to existing external transportation and traffic conditions, such as would occur during construction activity associated with the proposed Project. While the Project's impacts would be reduced to a less-than-significant level with incorporation of SCs, implementation of the proposed Project would improve circulation along McCadden Place by relocating the school bus loading/unloading zone to the proposed expanded southern parking lot to be accessed via Wilshire Boulevard. Therefore, although potential impacts associated with construction traffic would not occur, improvements to operational circulation would not be completed and this alternative would have greater impacts compared to the proposed Project.

Conclusion

As detailed above, with the implementation of Alternative 1, the following impacts associated with the proposed Project would not occur: air quality, cultural resources, energy, and greenhouse gas emissions. Additionally, impacts related to regional construction emissions would be reduced from less than significant under the proposed Project to no impact under Alternative 1. However, impacts related to transportation and traffic would be greater under Alternative 1.

The implementation of this alternative would result in less environmental impacts compared to the proposed Project. However, this alternative would result in greater impacts related to transportation and traffic and not meet any of the Project objectives.

5.7 Environmental Analysis of Alternative 2 (Reduced Project Alternative)

The following sections provide an analysis of the Reduced Project Alternative.

Aesthetics

Under Alternative 2, no demolition or new building construction would occur. Building upgrades such as seismic retrofit and infrastructure upgrades, which were anticipated as part of the proposed Project would occur in conformance with the Secretary of the Interior's Professional Qualifications Standards (SOIS). Alternative 2 would not alter the visual character of the Campus by introducing new buildings. The Campus layout would remain the same. Since no new buildings would be constructed, impacts would be less than those of the Project.

No new shadows would be cast since no new development would occur under this alternative. The existing Shop Building along the eastern boundary of the Campus would continue to cast some shade offsite. There would be no shadows or shading impacts on the environment under Alternative 2 as compared to the Project's less than significant impacts. Therefore, impacts of Alternative 2 would be less than those of the Project.

Air Quality

With Alternative 2, no demolition, grading, building construction would occur. Only building upgrades such as seismic retrofit and infrastructure improvements, which were anticipated as part of the proposed Project, would occur. This would result in less construction activity, and therefore, reduced regional construction emissions from construction equipment and employee vehicle trips, than the proposed Project.

Under Alternative 2, sensitive receptors would be exposed to reduced concentrations of toxic air contaminants and respirable particulate matter during construction activities due to reduced construction activity required. Alternative 2 would not create objectionable odors.

Cultural Resources

Under Alternative 2, all buildings, structures, and landscape features that contribute to the significance of Burroughs MS would be retained and rehabilitated in conformance with the SOIS. No contributing buildings to the historic district would be demolished. Conformance with the SOIS would require the retention and/or rehabilitation of the character-defining features of Burroughs Middle School such that it would retain its eligibility as a historic resource. For example, if the windows of a building were determined to be character-defining features then they would be retained and repaired, if necessary, but not replaced. Further, seismic upgrades would result in interior modifications and reconfigurations to increase classroom sizes to more closely meet current District standards while maintaining the historical character of the building's interior. The interiors would be made Americans with Disabilities Act (ADA) compliant and would include, but not be limited to, ADA-compliant entrances, seating, multi-story access, and restrooms.

Alternative 2 would result in a similar or slightly reduced level of impact to historic resources in comparison to the proposed Project because, under Alternative 2, all contributors to the historic district would be retained. The main difference between this alternative and the proposed Project is that no new buildings would be constructed on the campus. This alternative would result in less-than-significant impacts to historic resources which would be a similar or slightly reduced impact compared to the proposed Project. Implementation of SC-CUL-1 through SC-CUL-3 and SC-CUL-5 would still be required under this alternative. There is no demolition proposed under this alternative; as such, SC-CUL-4 would only apply if a building would be mothballed. The application of these SCs would reduce the impact even further.

Alternative 2 could result in a similar or slightly reduced impacts to archaeological and paleontological resources compared to the proposed Project because this Alternative would have a slightly reduced level of ground-disturbing construction, which could encounter previously unrecorded resources. Similar to the proposed Project, implementation of SCs and mitigation measures CUL-1 through CUL-4, would also reduce impacts of Alternative 2 to a less-than-significant level by ensuring appropriate treatment of the unanticipated discoveries of such resources.

Energy

Under Alternative 2, no demolition, grading, or building construction would occur. Therefore, Alternative 2 would use less energy compared to the proposed Project. Building upgrades such as seismic retrofit and infrastructure upgrades, which were anticipated as part of the proposed Project, would occur. It is assumed that upgrades to energy and water efficiency systems to meet current code would be installed. Therefore, Alternative 2 would result in similar less-than-significant operational impacts compared to the proposed Project.

Hazards and Hazardous Materials

Under Alternative 2, no demolition, grading, or building construction would occur. Building upgrades such as seismic retrofit and infrastructure upgrades, which were anticipated as part of the proposed Project, would occur. Therefore, Alternative 2 would result in fewer impacts to workers regarding exposure to contaminated soils and hazardous building materials. Impacts related to release of hazardous materials would be less than significant, similar to the proposed Project.

Alternative 2 could expose workers to hazardous building materials such as asbestos containing material and lead based paint during modernization and seismic upgrades within the existing Campus buildings. Further, Alternative 2 would require the removal of affected soils within the Campus. However, construction work under Alternative 2 would result in less square footage of demolition and potentially less soil removal than the proposed Project, therefore reducing the amount of hazardous materials exposure, transport, use, and disposal during Alternative 2 construction activities. Impacts associated with the accidental release or exposure to hazardous materials would be less than significant, similar to the proposed Project.

Noise

Under Alternative 2, no demolition, grading, or building construction would occur, and minimal heavy-duty construction equipment or haul trucks would be required for removal of the portable buildings. Therefore, short-term construction-related noise impacts would be reduced compared to the proposed Project. In addition, because construction activity under this alternative would be limited to portable building removal, building retrofit and upgrades, significant impacts associated with vibration during proposed Project construction activities would be reduced to less than significant.

Under both the proposed Project and Alternative 2, no increase in operations such as vehicle trips, or use of the Campus for outdoor activities, would occur. Therefore, operational impacts would be similar.

Transportation and Traffic

Under Alternative 2, there would be changes to existing external transportation and traffic conditions, such as would occur during construction activity associated with the proposed Project. Impacts under Alternative 2 would be reduced to a less-than-significant level with the incorporation of SCs. Similarly, some of the transportation and traffic effects associated with the proposed Project would occur under Alternative 2 during construction. Because Alternative 2 construction activity would be limited to building retrofit and upgrades, impacts associated with construction traffic would be reduced and would be less than significant compared to the proposed Project. While the Project's impacts have been reduced to a less-than-significant level with incorporation of SCs, implementation of the proposed Project would improve circulation along McCadden Place by relocating the school bus loading/unloading zone to the proposed expanded southern parking lot to be accessed via Wilshire Boulevard. Therefore, although potential impacts associated with construction traffic would not occur, improvements to operational circulation would not be completed and this alternative would have greater impacts compared to the proposed Project.

Conclusion

As detailed above, with implementation of Alternative 2, the following impacts associated with development of the proposed Project would be reduced: aesthetics, air quality, cultural resources, hazardous materials, energy, noise, transportation, and traffic. Implementation of this alternative would result in less environmental impacts compared to the proposed Project, however, this alternative would not meet the majority of Project objectives.

5.8 Environmental Analysis of Alternative 3 (Demolition of Shop Building and New Classroom Building Project Alternative)

The following sections provide an analysis of the Demolition of Shop Building and New Classroom Building Project Alternative. As noted previously, the identification of other alternatives beyond those evaluated herein is not practical given that the nature of the project – improvements to an existing school site – inherently limit the feasibility and applicability of additional alternatives. Nonetheless, to ensure a robust consideration of alternatives, the analysis includes Alternative 3 since it was the original concept presented in the Initial Study prepared for improvements to Burroughs Middle School.

Aesthetics

This Alternative would implement a development plan similar to that of the proposed Project, but would include demolition of the Shop Building (Building 9), which is characterized as contributing to the historic district. Building upgrades such as seismic retrofit and infrastructure upgrades, which were anticipated as part of the proposed Project, would occur in conformance with the SOIS. Due to the proposed demolition of the contributing Shop Building, Alternative 3 would have a greater impact on the existing visual character of the Project site and impacts would be potentially significant.

Furthermore, under this Alternative, impacts related to shadows and shading would be greater than the proposed Project, but still less than significant. During the winter solstice, shadows would reach the residential uses to the east at 4:00 p.m. but the shadows would not last for more than three hours between 9:00 a.m. and 3:00 p.m. No other shading to sensitive receptors would occur during the winter solstice. During the fall equinox, shadows would reach a small portion of the residences to the east beginning at 4:00 p.m. and would occur for less than three hours. During the summer solstice, shadows would not reach the residences to the east. Shadow or shading impacts under Alternative 3 would be similar to the proposed Project and therefore, would be less than significant. However, due to the increased height of the new building that would replace the Shop Building, the shadows cast would be longer. Therefore, although potential impacts associated with shadows and shading would not occur, due to the increased height of the Shop Building replacement, this alternative would have greater impacts compared to the proposed Project.

Air Quality

With Alternative 3, more construction activity would occur, and therefore, increased regional construction emissions from construction equipment and employee vehicle trips, than the proposed Project.

Under Alternative 3, sensitive receptors would be exposed to increased concentrations of toxic air contaminants and respirable particulate matter during construction activities due to increased construction activity and equipment required. Alternative 2 would not create objectionable odors.

Cultural Resources

Alternative 3 would include renovations, modernizations and seismic upgrades to existing buildings on the campus, demolition of one contributing building and several non-contributing buildings, and construction of three new buildings. With the exception of the Shop Building (Building 9), which would be demolished under Alternative 3, all contributing buildings and landscape features would be retained and rehabilitated in conformance with the SOIS. Regarding new construction, Building A would be constructed in the location of the Shop Building (Building 9), Building B would be constructed where non-contributing Buildings 17 and 20 are currently located, and Building M+O would be constructed near the southeast corner of the campus directly east of a new Athletics Quad.

Alternative 3 would result in a greater level of impact to historic resources in comparison to the proposed Project because, under Alternative 3, the Shop Building (Building 9), a contributor to the historic district, would be demolished. While the Shop Building (Building 9) is not among the most architecturally distinctive buildings on the campus, its demolition would result in a substantial loss of historic fabric as well as represent a significant visual change as viewed from the Academic Quad. While its removal would not result in the Historic District being ineligible for the National or California registers, it is considered a substantial adverse change and, therefore, potentially a significant impact under CEQA. The implementation of SC-CUL-4 would require the recordation/documentation of this building in a HABS-like package. However, these measures would not reduce the impact to a less-than-significant level, resulting in a significant and unavoidable impact to historic resources.

Alternative 3 could result in similar or slightly greater impacts to archaeological and paleontological resources compared to the proposed Project because this Alternative would have a slightly greater level of ground-disturbing construction, which could encounter previously unrecorded resources. However, similar to the proposed Project, implementation of SCs and mitigation measures CUL-1 through CUL-4, would also reduce impacts of Alternative 3 to a less-than-significant level by ensuring appropriate treatment of the unanticipated discoveries of such resources.

Energy

With Alternative 3, more construction activity would occur, and therefore, increased regional construction emissions from construction equipment and employee vehicle trips, than the proposed Project. Therefore, under Alternative 3, transportation energy use during construction would be greater as compared to the proposed project.

It is assumed that upgrades to energy and water efficiency systems to meet current code would be installed. Therefore, Alternative 3 would result in similar less than significant operational impacts as compared to the proposed Project.

Hazards and Hazardous Materials

Under Alternative 3, more construction activity would occur. This Alternative would implement a development plan similar to that of the proposed Project, but would include demolition of the Shop Building (Building 9). Under Alternative 3, the same activities associated with the RAW and cleanup would occur as under the proposed Project. Approximately 160 cubic yards of soil containing

contaminants of concern (COCs); specifically, arsenic and lead, at levels that exceed the LAUSD's cleanup goals would be removed from areas located throughout the Project site. As described in Section 3.5, Hazards and Hazardous Materials, excavated soil would be either direct-loaded into waiting dump trucks or temporarily stockpiled within an on-site "holding area" using a rubber-tire backhoe or similar equipment (such as wheel loader). Any temporary soil stockpiles would be properly secured and protected until ready for loading for off-site transportation and disposal to an appropriate facility. Therefore, similar to the proposed Project, Alternative 3 would not subject people to hazards from lead or arsenic. Impacts related to the transport, use, or disposal of hazardous materials would be less than significant.

Alternative 3 is an educational facility and would not involve the routine transport, storage, production, use, or disposal of hazardous materials or use of pressurized tanks during operation. Small amounts of pesticides may be stored for the maintenance of landscaped areas and limited quantities of custodial and maintenance products, including commercial cleansers, lubricants, and paints would also be stored onsite. All hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations, and would not pose significant hazards to the public or the environment. Therefore, operational impacts related to the transport, use, or disposal of hazardous materials use would be less than significant and would be similar to the proposed Project.

Noise

Under Alternative 3, more construction activity would occur, and therefore, increased regional construction emissions from construction equipment and employee vehicle trips, than the proposed Project. Consequently, construction noise impacts under Alternative 3 would be increased compared to the proposed Project.

In addition, because construction activity under this alternative would require increased construction activity, significant impacts associated with vibration during proposed Project construction activities would be increased as compared to the proposed project.

Under both the proposed Project and Alternative 3, no increase in operations such as vehicle trips, or use of the Campus for outdoor activities, would occur. Therefore, operational impacts would be similar.

Transportation and Traffic

Under Alternative 3, there would be changes to existing external transportation and traffic conditions, such as would occur during construction activity associated with the proposed Project. Impacts under Alternative 3 would be reduced to a less-than-significant level with the incorporation of SCs. Similarly, some of the transportation and traffic effects associated with the proposed Project would occur under Alternative 3 during construction. Because Alternative 3 construction activity would increase, impacts associated with construction traffic would be increased compared to the proposed Project, but would remain less than significant.

While the Project’s impacts have been reduced to a less-than-significant level with incorporation of SCs, similar to the proposed Project, this alternative would improve circulation along McCadden Place by relocating the school bus loading/unloading zone to the proposed expanded southern parking lot to be accessed via Wilshire Boulevard. Therefore, improvements to operational circulation would be completed and this alternative would have similar impacts compared to the proposed Project.

Conclusion

As detailed above, with implementation of Alternative 3, none of the impacts associated with development of the proposed Project would be reduced. Due to the demolition of the Shop Building (Building 9), Alternative 3 would alter in an adverse manner those physical characteristics that account for Burroughs MS’s eligibility as a historical resource. The Campus is seen as a single historical resource—the Burroughs MS Historic District—with the buildings, structures, and other features, such as landscaping, as either contributing or non-contributing elements, or components, of that historical resource. Therefore, while the demolition of one contributing building (the Shop Building) would not result in the ineligibility of the Historic District, the loss of this historic fabric is considered a potentially significant impact under CEQA. Additionally, while the shade/ shadow impact from the new 2-story Shop Building replacement would remain less than significant, its shadow would be longer than that of the existing Shop Building. All other impacts under Alternative 3 would be similar to the proposed Project.

Implementation of this alternative would result in greater environmental impacts compared to the proposed Project. However, this alternative would meet the majority of Project objectives.

5.9 Comparative Summary of the Alternatives

Table 5-1 below presents the significance determinations for each environmental impact discussion for the proposed Project and each alternative, and how impacts of the alternatives compare to the proposed Project. The table provides a means for the reader to review and compare the alternatives to each other, and to the proposed Project. **Table 5-2** demonstrates each alternative’s consistency with the Project objectives.

**TABLE 5-1
ALTERNATIVE COMPARISON**

Environmental Issue	Proposed Project	Alternative 1: No Project/ No Development	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
Aesthetics				
Visual Character	LS	NI (L)	LS (L)	LS (G)
Shade and Shadow	LS	NI (L)	LS (L)	LS (G)
Air Quality				
Air Quality Plan	LS	NI (L)	LS (L)	LS (E)
Air Quality Standards/Violations	LS	NI (L)	LS (L)	LS (E)
Criteria Pollutant	LS	NI (L)	LS (L)	LS (G)
Sensitive Receptors	LS	NI (L)	LS (L)	LS (G)
Cultural Resources				
Historical Resources	LS	NI (L)	LS (L)	SU
Archaeological Resources	LS	NI (L)	LS (E)	LS (E)
Paleontological Resources	LSM	NI (L)	LSM (E)	LS (E)
Energy				
Energy Conservation Plans	LS	NI (L)	LS (L)	LS (G)
Unnecessary Consumption of Energy	LS	NI (L)	LS (L)	LS (G)
Construction of New Energy Facilities	LS	NI (L)	LS (L)	LS (E)
Hazards and Hazardous Materials				
Accidental Release of Hazardous Materials	LS	NI (L)	LS (L)	LS (E)
Hazardous Emissions Near a School	LS	NI (L)	LS (L)	LS (E)
Roadway Safety Hazards	LS	NI (L)	NI (L)	LS (E)
School Bus Traffic Pattern	LS	NI (L)	LS (E)	LS (E)
Noise and Vibration				
Noise Levels in Excess of Standards	SU	NI (L)	LS (L)	SU (G)
Excessive Ground-Borne Vibration	LSM	NI (L)	LS (L)	LSM (G)
Permanent Increase in Ambient Noise Levels	LS	NI (L)	LS (L)	LS (E)
Temporary or Periodic Increase in Ambient Noise Levels	SU	NI (L)	LS (L)	SU (G)

Environmental Issue	Proposed Project	Alternative 1: No Project/ No Development	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
Transportation and Traffic				
Traffic Increase	LS	NI (L)	LS (L)	LS (G)
Design Hazards	LS	NI (L)	LS (E)	LS (E)
Emergency Access	LS	NI (L)	LS (E)	LS (E)
Public Transit, Bicycle and Pedestrian Facilities	LS	NI (L)	LS (E)	LS (E)
Pedestrian Safety	LS	NI(G)	LS (E)	LS (E)
Unsafe Routes to School	LS	NI (E)	LS (E)	LS (E)
NOTES:				
NI = No Impact		(L) = Less than proposed Project		
LS = Less than Significant		(G) = Greater than proposed Project		
LSM = Less than Significant with Mitigation		(E) = Equivalent to proposed Project		
SU = Significant and Unavoidable				

**TABLE 5-2
CONSISTENCY WITH PROJECT OBJECTIVES**

Objective	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
# 1 Ensure that the buildings that have been evaluated and identified as requiring seismic upgrades are addressed.	The Project would demolish and replace buildings and provide seismic upgrades to buildings to ensure safety standards are met	Inconsistent: No buildings would be renovated, demolished or replaced.	Consistent: Would not replace school buildings, but would upgrade seismic deficiencies.	Consistent: Would demolish and replace buildings and would provide modifications to ensure safety standards are met.
#2 Provide upgrades throughout the campus to improve accessibility for all students and to comply with the requirements of the Americans with Disabilities Act (ADA) Title II Regulations pursuant to the District's self-evaluation and transition plan under the ADA (October 10, 2017).	The Project would remodel buildings for ADA compliance within the buildings and entry access. The parking lots would be upgraded and parking spaces, including ADA-compliant parking spaces would be modified.	Inconsistent: None of the ADA-compliant campus features would be implemented. The campus would remain the same and several areas would not accommodate disabled students.	Consistent: Would provide ADA-compliant upgrades.	Consistent: Would remodel buildings for ADA compliance within the buildings and entry access. The parking lots would be upgraded and parking spaces, including ADA-compliant parking spaces would be modified.
#3 Provide educational facilities that meet California Department of Education (CDE) requirements and LAUSD educational specifications and design guidelines.	The Project would renovate and remodel and upgrade several buildings in accordance with CDE requirements and LAUSD specifications and guidelines.	Inconsistent: No alterations to improve or meet the CDE requirements and LAUSD specifications and guidelines would be completed.	Semi-consistent: Not all of the CDE requirements and LAUSD specifications and guidelines would be completed.	Consistent: Would renovate and remodel and upgrade several buildings in accordance with CDE requirements and LAUSD specifications and guidelines.
#4 Maximize site efficiency and outdoor playground space for students.	The Project would redesign and maximize the space for the outdoor quad and food shelter. New play fields and courts would be provided. The new buildings and building modifications would be provided for efficiency and pedestrian circulation.	Inconsistent: No building features or outdoor areas would be upgraded.	Semi-consistent: Outdoor playground areas would be upgraded, but not as optimal and efficient configuration as the proposed project.	Consistent: Would redesign and maximize the space for the outdoor quad and food shelter. New play fields and courts would be provided. The new buildings and building modifications would be provided for efficiency and pedestrian circulation.
5# Create a modern learning environment for students in the 21 st century.	The Project would create new and modern general classroom spaces and specialty spaces to align with the current programmatic needs of the Campus. The Project would include ADA compliance improvements, use of green technologies, and safety and	Inconsistent: No new buildings would be constructed and no buildings would be updated.	Semi-consistent: Buildings would be renovated and upgraded; however, no new buildings would be constructed to allow for modern learning environment for students. Furthermore, overall enrollment at the school would decrease	Consistent: Would create new and updated general classroom spaces and larger specialty spaces to align with the current programmatic needs of the Campus. Would include ADA compliance improvements, use of green technologies, and

Objective	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
	security improvements that will align with operational needs of the Campus.		with implementation of this alternative.	safety and security improvements that will align with operational needs of the Campus.
#6 Respect the historic significance of the Campus through rehabilitation.	The Project would ensure new and renovated buildings would be consistent with the general character of existing buildings on campus and the surrounding neighborhood in terms of architectural style, density, bulk, and setback.	Consistent: No buildings would be demolished and no new building would be added.	Consistent: No buildings would be demolished and no new building would be added. Modernization and renovations would be in conformance with the SOIS.	Inconsistent: Contributing Shop Building (Building 9) would be demolished.
#7 Eliminate reliance on portable classrooms	The Project would remove portable classrooms and provide new buildings with new classrooms.	Inconsistent: Portables would remain and no new buildings would be constructed.	Consistent: Portables would be removed, but no buildings would be provided for new classrooms, leading to reduced enrollment capacity.	Consistent: Would remove portable classrooms and provide new buildings with new classrooms.
#8 Revitalize the urban forest by planting new trees and replacing aging trees and trees in poor health with native, climate-adapted species.	The proposed Project would include substantial landscape improvements. Landscape improvements may include repair or replacement of irrigation systems, including: lawn sprinklers and sprinkler controls; trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls. Historic landscaping (significant primary landscape, Figure 4) along the northwestern boundary of the Project site would be preserved. Any protected trees or significant trees that would be removed as part of the Project would be replaced in accordance with the requirements of the City of Los Angeles Tree Ordinance. The removal of existing portable buildings in the vicinity of the	Inconsistent: No new outdoor spaces would be provided.	Semi-consistent. Portables would be removed but no new buildings would be constructed. Landscaping upgrades would still be implemented, but not to the same extent as under the proposed Project.	Consistent: Would include substantial landscape improvements. Landscape improvements may include repair or replacement of irrigation systems, including: lawn sprinklers and sprinkler controls; trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls. Historic landscaping (significant primary landscape, Figure 4) along the northwestern boundary of the Project site would be preserved. Any protected trees or significant trees that would be removed as part of the Project would be replaced in accordance with the requirements of the City of Los Angeles Tree Ordinance.

Objective	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
	historic buildings creates a new outdoor amenity space, at the center of which will be a new one-story buildings comprised of an east and west wing separated by a landscaped pathway. This new amenity space is envisioned as a tree-shaded courtyard organized by a collection of meandering gardens that will be designed to weave both the historic buildings and new buildings to each other, as well as relate new architecture to historic architecture and elevate perception of this area as a cohesive unified campus.			The removal of existing portable buildings in the vicinity of the historic buildings creates a new outdoor amenity space, at the center of which will be a new one-story buildings comprised of an east and west wing separated by a landscaped pathway. This new amenity space is envisioned as a tree-shaded courtyard organized by a collection of meandering gardens that will be designed to weave both the historic buildings and new buildings to each other, as well as relate new architecture to historic architecture and elevate perception of this area as a cohesive unified campus.
#9 Continue to accommodate the existing capacity and specialized needs of all programs at Burroughs Middle School, including the Gifted/High Ability Magnet Center program that is part of the District's Integration Program.	The proposed Project would provide classroom capacity to continue to accommodate the needs of all programs.	Semi-Consistent. The Campus would not provide necessary classroom space to accommodate the existing capacity and specialized needs. The space would remain the same.	Inconsistent. Portables would be removed, but no buildings would be provided for new classrooms, resulting in reduced enrollment capacity. Therefore, the Campus would not be able to provide necessary classroom space to accommodate the existing capacity and specialized needs.	Consistent. Would provide classroom capacity to continue to accommodate the needs of all programs.
#10 Maximize the impact of limited bond funds to provide modern and permanent instructional facilities.	The Project would provide two new permanent and modern instruction buildings.	Inconsistent. No new buildings or upgrades would be provided.	Inconsistent. No new permanent and modern instruction buildings would be provided.	Consistent. New permanent and modern instruction buildings would be provided.
#11 Reduce the amount of storm water runoff from the campus.	The Project would upgrade the drainage onsite to address storm water runoff from the Campus.	Inconsistent. The Project would not upgrade the drainage onsite to address storm water runoff from the Campus.	Consistent. Infrastructure upgrades throughout the Campus would address storm water runoff from the Campus.	Consistent. Infrastructure upgrades throughout the Campus would address storm water runoff from the Campus.

Objective	Proposed Project	Alternative 1: No Project/No Build	Alternative 2: Reduced Project	Alternative 3: Demolition of Shop Building
#12 Improve campus safety, supervision, and pedestrian and vehicular circulation, including emergency vehicles and personnel.	The removal of portable buildings would allow for improved sightlines for campus safety and supervision. The Project would provide a new bus location in a new southern parking lot and driveway and remove busses from McCadden Place allowing for better traffic circulation and pedestrian safety.	Inconsistent. No modifications to campus safety, circulation and pedestrian safety would be implemented.	Consistent. The removal of portable buildings would allow for improved sightlines for campus safety and supervision. The southern parking lot and bus driveway for pickup and drop-off would be implemented.	Consistent. The removal of portable buildings would allow for improved sightlines for campus safety and supervision. The southern parking lot and bus driveway for pickup and drop-off would be implemented.
#13 Increase energy efficiency of the campus by upgrading or replacing facilities and incorporating standards developed by the Collaborative for High Performance Schools (CHPS).	New energy-efficient permanent buildings would be constructed and several upgrades and modifications to existing buildings would be implemented (such as window upgrades) to increase energy efficiency.	Inconsistent. No upgrades or new energy-efficient buildings would be implemented.	Semi-Consistent. No new buildings would be provided. Campus-wide building and infrastructure upgrades would be implemented to address energy inefficiency.	Consistent. New energy-efficient permanent buildings would be constructed and several upgrades and modifications to existing buildings would be implemented (such as window upgrades) to increase energy efficiency.

5.10 Environmentally Superior Alternative

An EIR must identify the environmentally superior alternative. The No Project Alternative would reduce, or eliminate, all proposed Project impacts. However, the No Project Alternative does not meet any of the Project objectives. In addition, CEQA Guidelines (Section 15126.6[c]) requires that, if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

As such, Alternative 2, the Reduced Project Alternative, would be the environmentally superior alternative as it would result in the greatest reduction in air quality, cultural resources, energy, hazards and hazardous materials, noise, and traffic impacts, compared to the proposed Project. Under Alternative 2, no new buildings would be provided on the Campus. Therefore, Objectives #s 1, 2, 3, 4, 5, 7, 9, 10, and 13 would not be entirely met. These objectives' goals are to increase safety for staff and students by providing upgraded buildings and to reduce the reliance on portable buildings. Further, these objectives aim to provide larger classroom spaces that could accommodate modern and efficient technology. Therefore, this alternative would meet some of the objectives but not to the same degree as the proposed Project.

CHAPTER 6

Report Preparation

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