



LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969



Prepared by
Sapphos Environmental, Inc.
for the
Los Angeles Unified School District
Office of Environmental Health and Safety

March 2014

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Figure 1. Point Fermin Elementary School, Administration Building, Sumner P. Hunt & Silas Burns, San Pedro (1917–1925; remodeled in 1936 following Long Beach Earthquake). Source: LAUSD Point Fermin Elementary School Pre-Planning Survey, 2010.

I. INTRODUCTION

Behind every building type and feature comprising our built environment—whether commercial or residential buildings, urban plans, or parks—is a long history of practitioners who tried to harness the best ideas and technologies of their day to create quality environments for living and working. In California and throughout the United States, few other areas have generated as much debate and study, however, as environments for learning.

Whether in 1900 or 1960, reform-minded architects and designers, school boards, and educators used similar language to present their ideas for the most “modern” classroom and campus. Through this time, ideas evolved, of course. But the debate has always been shaped by the latest ideas about teaching methods and curricula, childhood development, and optimal environmental conditions for comfort, safety, and efficiency. Fueled by a national network of education-related organizations and publications, this has been a shared, ongoing project throughout the United States since the Progressive Era.

Spanning the early 1870s to 1969, this Historic Context Statement explores over a century of development of the Los Angeles Unified School District (LAUSD), examined in the context of school design in the United States. Since the Progressive Education Movement gained momentum in the early twentieth century, national standardization has been at the heart of school reform, in terms of both classroom curriculum and design. Therefore, the local story is best understood against the backdrop of the national context. This study explores the ways in which LAUSD’s schools and campuses reflect a century of national practice, reform, and regional variation.

Figure 2. Los Angeles Unified School District Boundary. Source: Sapphos Environmental, Inc., 2014.



Figure 3. Children at Vernon Avenue Junior High School, Los Angeles, circa 1925. Source: LAPL Photo Collection.

Project Summary and Scope

With nearly 800 campuses and a geographic span of over 700 square miles, LAUSD is the second largest public school system in the United States. The district's northern portion spans the San Fernando Valley, including Granada Hills, Chatsworth, Reseda, Woodland Hills, Van Nuys, Sylmar, San Fernando, Pacoima, and Sunland. Along the west, the district includes western Los Angeles, Pacific Palisades, Venice, and Westchester. Along the east, LAUSD borders Glendale, Monterey Park, Montebello, Commerce, Downey, and Long Beach. Within the district, extending south from Los Angeles, are the communities of Vernon, Huntington Park, Maywood, Bell, South Gate, Gardena, and Carson. LAUSD's southernmost portion includes San Pedro, Lomita, and Rancho Palos Verdes.

Since its founding in 1872, the district has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. These properties reflect over a century of social, architectural, and technological advances, as well as ongoing educational and curricular reform. Extant properties range from the wood-framed schoolhouse of the late nineteenth century to superblock campuses displaying Mid-Century Modern architectural styles.

In July 2013, in anticipation of district-wide modernization efforts, LAUSD contracted Sapphos Environmental, Inc. to provide historic resource consulting services to inform master planning efforts and environmental review under the California Environmental Quality Act (CEQA). The scope of work includes updating the LAUSD Historic Context Statement, conducting historic resource surveys of 55 unevaluated campuses, and preparing design and procedural guidelines to help guide facilities management and planning efforts.



Figures 4 and 5. San Fernando Valley schools: on left, Grover Cleveland Senior High School (1959), Charles Matcham & Stewart Granger and Associates, Reseda-West Van Nuys. On right, Chatsworth Senior High School (1963), Adrian Wilson & Associates, Chatsworth. Source: Sapphos Environmental, Inc., 2013.

Purpose of Historic Context Statements

The *LAUSD Historic Context Statement* follows the National Register of Historic Places (NRHP) Multiple Property Documentation (MPD) format, which provides a consistent framework for evaluating properties sharing similar periods, geographic distribution, and historic themes.¹ The MPD approach defines themes of significance, eligibility standards, and related property types. Properties sharing a theme of significance are then assessed consistently, in comparison with resources that share similar physical characteristics and historical associations.

According to federal, state, and local law, landmark eligibility is not just tied to architectural style but also to significant people, events and patterns of development. Historic context statements facilitate the consistent consideration of these criteria. Three principal components go into context statements: historic themes, geographic areas, and chronological periods. Contexts offer more than a chronological history; they identify the patterns and events that drove development of an area—or, in this case, a building type, educational facilities—and caused the building type to acquire the form and appearance for which it became known.

Because of the high degree of national standardization of school curricula and facilities design, in particular during the postwar period, the *LAUSD Historic Context Statement* provides a framework for evaluating school plants not only in Los Angeles but also in other school districts throughout California and beyond.

Historic Resources and CEQA

The *LAUSD Historic Context Statement* is also designed to facilitate compliance with CEQA, which requires lead agencies to consider the impacts of proposed projects on historic resources. CEQA identifies a historic resource as a property that is listed on—or eligible for listing on—the NRHP, California Register of Historical Resources (CRHR), or local registers.

NRHP-listed properties are automatically included on the CRHR. The criteria for both are similar and described below, with the NRHP letter (A, B, C, and D) followed by the corresponding CRHR number (1, 2, 3, and 4). In keeping with the 2001–2004 Phase 1 and 2 LAUSD historic resources survey, this survey does not include local criteria.²

Resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. To qualify as a historic resource under CEQA, a resource must be significant at the local, state, or national level under one or more of the following criteria:

- A/1: For an association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States (NRHP Criterion A; CRHR Criterion 1);
- B/2: For an association with the lives of persons important to local, California, or national history (NRHP Criterion B; CRHR Criterion 2);
- C/3: As an embodiment of the distinctive characteristics of a type, period, region, or method of construction, representative of the work of a master or high artistic values (NRHP Criterion C; CRHR Criterion 3); or
- D/4: Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (NRHP Criterion D; CRHR Criterion 4).

Resources eligible for listing in the California Register must retain enough of their historic character or appearance to be “recognizable as historic resources and to convey the reasons for their significance.”³ Some resources that do not retain sufficient integrity for listing in the National Register may still be eligible for the California Register. There is no specific age threshold for California Register eligibility; rather, the regulations specify that enough time must have passed for a property to be evaluated within its historic context.

Focus and Parameters of the LAUSD Historic Context Statement

This Historic Context Statement creates a framework for evaluating Los Angeles’s public schools at a critical juncture, as LAUSD begins planning for campus-wide modernization and redevelopment. Emphasized in this study, therefore, was the question of potential eligibility of schools under Criteria A/1, as outstanding examples of LAUSD design ideals and principles. The history and context of Los Angeles public school design and educational architecture are the particular focus of this study. Because the postwar era largely fell outside the scope of the 2002 LAUSD historic context statement, the postwar era is examined in detail.

This study represents not a comprehensive history but rather a first step in better understanding the evolution of school design in the district. Project limitations precluded extensive research on additional aspects of LAUSD’s history that might result in eligibility

under Criteria A/1 and Criteria B/2. Campus-specific research was conducted on all pertinent topics for each of the schools surveyed. Subsequent research that establishes additional themes for the district overall would be an excellent area for future study. For example, this study offers a short section on LAUSD and the Civil Rights Movement; in addition, this topic was addressed in the National Register of Historic Places Multiple Property Documentation form for African-Americans in Los Angeles.⁴ Given how broad and rich the topic is, however, ample opportunities remain for further research.

In terms of evaluations under Criteria C/3, this study also includes a section on the typical architectural styles of LAUSD schools. This material draws on and expands the 2002 LAUSD Historic Context Statement as well as the guidelines prepared by the City of Los Angeles Office of Historic Resources for historic resource survey work.

Inclusion in this context does not indicate eligibility for listing. Rather, the range of LAUSD campuses, past and present, illustrated or described here serves to define the context, themes of significance, and features of properties that might be found significant upon further study.



Figure 6. Orville Wright Middle School (originally Westchester High School), Spaulding & Rex, architects (1948-1952). Source: LAUSD Orville Wright Middle School Pre-Planning Survey, 2012.

Project Team

Debi Howell-Ardila, senior architectural historian with Sapphos Environmental, Inc., served as project manager, principal investigator, and author of the LAUSD Historic Context Statement. Carole Zellie, historic resources manager, provided guidance and input. Marilyn Novell, historic resources coordinator, provided valuable research assistance, and Matthew Adams, senior technical editor, provided editorial expertise. Gwenn Godek of the LAUSD Office of Environmental Health and Safety served as project administrator and manager. The study also benefited from the feedback of LAUSD Facilities Services Divisions staff Mitra Nehorai; Janet Hansen, deputy manager of the City of Los Angeles Office of Historic Resources; and Linda Dishman, executive director, and Adrian Scott Fine, director of advocacy, of the Los Angeles Conservancy.

Report Preparation and Methodology

A wide range of repositories and archives were consulted in the course of this study. Among them were the combined collections of the University of Southern California (USC) libraries; the Los Angeles Public Library, including the Photo Collection, California Index, and Sanborn Fire Insurance Maps; the Getty Research Institute; and the historic *Los Angeles Times* and other digital newspaper collections. The photographic collections of the Getty Research Institute and the USC Digital Archive were also used. A variety of primary source materials were provided by LAUSD.

Research also explored an array of online and print sources. These included historic photographs and aerial images, reports, studies, and treatises on school architecture (ca. 1900 to 1950). Other sources included books, trade publication and newspaper articles, and architectural plans. Scholarly articles as well as specialized studies and chronologies of LAUSD were also consulted.

Also informing this study was a review of past LAUSD historic resource contexts and surveys, including the multiphase survey conducted by Leslie Heumann and Associates and Science Applications International Corporation between 2001 and 2004. In addition, Sapphos Environmental, Inc. reviewed the findings of historic resource surveys conducted through SurveyLA, a citywide, multiyear initiative of the City of Los Angeles Office of Historic Resources. To complement the work of SurveyLA, this Historic Context Statement reflects and draws upon the basic structure of context, themes, and property types used in SurveyLA for institutional architecture in Los Angeles. With a focus on the patterns and trends that shaped LAUSD's history and schools, as well as on-site access to district campuses, this context provides a supplemental framework to help inform and guide evaluations.

In accordance with LAUSD and the City of Los Angeles Office of Historic Resources, once complete, the LAUSD Historic Context Statement and Historic Resources Inventory database will be provided to the Office of Historic Resources. The Historic Resources Inventory being developed by Sapphos Environmental, Inc. is Arc-GIS compatible and can easily be utilized as an Arc-GIS layer in future historic resource surveys carried out for the City of Los Angeles.

Study Contents

This report consists of six sections: Section I, Introduction; Section II, Summary of Themes of Significance; Section III, Historic Context and Background; Section IV, Architectural Character; Section V, Themes of Significance; Section VI, Conclusion and Recommendations; and Section VII, Selected Bibliography. Four distinct eras for LAUSD were identified: Founding Years, 1870s to 1909; Progressive Education Movement: Standardization and Expansion, 1910 to 1933; Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functional School Plant, 1933 to 1945; and Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1946 to 1969.



*Figure 7. Garvanza School, 1910.
Source: USC Digital Library.*



*Figure 8. Circa 1900, Schoolhouse, West Los Angeles.
Source: LAPL Photo Collection.*

II. SUMMARY OF THEMES OF SIGNIFICANCE

Themes of significance were prepared for extant school property types. No known examples exist of some important types, notably the monumental, early-twentieth-century big-block school that was once a LAUSD standard. This school type was usually constructed of unreinforced, fire-resistant masonry. However, the material's earthquake vulnerability meant that most of these schools were either destroyed or damaged beyond repair in the 1933 Long Beach earthquake, or were subsequently replaced to comply with new building codes.

In order to facilitate cross-agency coordination, this section draws on relevant material developed by the City of Los Angeles Office of Historic Resources for historic resource evaluations. Information used in SurveyLA to evaluate institutional properties was consulted and adapted where appropriate.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | FOUNDING YEARS, 1875–1894

This theme is embodied in Los Angeles's remaining one- and two-story wood-frame schoolhouses that generally display Late Victorian or vernacular styles. Only three nineteenth-century schoolhouses are known to remain from LAUSD's founding years. Schools constructed during this period display traditional modes of school design, before the Progressive Education Movement and widespread reform changed national construction standards and before increased urbanization necessitated larger-capacity school plants.

THEME: LAUSD | PRE–1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1910–1933

This theme reflects an important period for Los Angeles schools. First, it occurred after the Progressive Education Movement had triggered widespread reform of school design throughout the United States. This resulted in a more differentiated, expansive school plant, with specialized facilities and program-specific buildings and classrooms; this ended the era of the monumental, big-block school. Second, this period occurred before a statewide overhaul of school building codes and practices after the 1933 Long Beach earthquake.

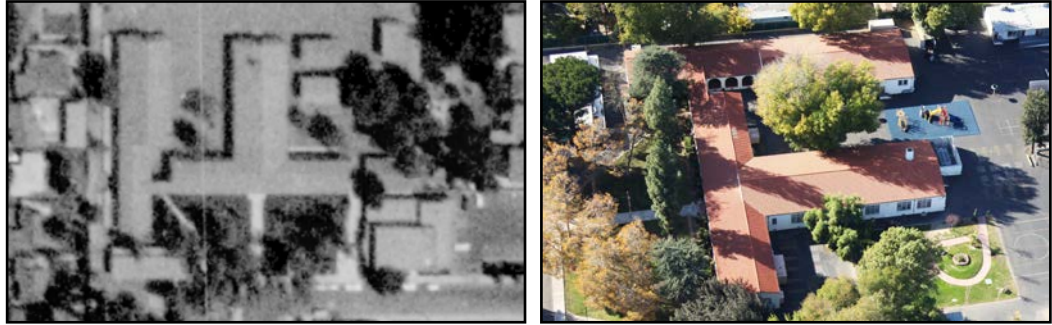
This period also began as the 1920s ushered in a school building boom and period-revival golden age in Southern Californian architecture. The importance placed on public education was expressed through beautifully designed school buildings, often created by the region's leading architects. Campus design became more unified, with elaborate approaches and entrances. The advent of more grand entrances, as well as the incorporation of separate auditoriums, sited for ease of public access, reflected a growing sense that public education was a community affair.



Figure 9. 10th Street Elementary School, Los Angeles (1922). Source: LAUSD.

Replacing the big-block school, with internal corridors, was a generally lower-massed, spread-out campus. In some examples, designers replaced hallways with covered outdoor walkways. Building plans also evolved, as the traditional rectangular plan took on adjacent wings, in H-shaped, T-shaped, or U-shaped buildings that facilitated the creation of sheltered outdoor spaces and patios. Lower massing was particularly common for elementary schools.

Because most pre-1933 schools were substantially remodeled following the Long Beach earthquake, intact examples from this era are relatively rare. It is common to find 1920s-era schools that were remodeled following the earthquake; such schools might exhibit the building plans and configurations typical of the 1920s but with 1930s PWA Moderne and Streamline Moderne detailing.



Figures 10 and 11. Post–Long Beach Earthquake school: H-shaped plan and Mission Revival style of Reseda Elementary School (1936). Aerial photographs from 1959 (left) and circa 2010 (right). Source: U.S. Dept. of Agriculture, *historicaerials.com* (left) and LAUSD Reseda Elementary School Pre-Planning Survey (right).

THEME: LAUSD | POST–1933 LONG BEACH EARTHQUAKE SCHOOLS, 1933–1945

Following the 1933 Long Beach earthquake, state and city legislation regarding school building codes and practices shifted the character of LAUSD schools and campuses. Requirements of the Field Act (1934), such as maintaining one-story massing for elementary schools and no more than two stories for junior and high schools, mirrored reforms already under way. Classroom wings continued to be designed for connections to the outdoors, with L-, H-, U-, and T-shaped buildings accommodating sheltered courtyard and patio spaces. Continuing another trend under way in the 1920s, campuses displayed an increasingly unified site design, with sheltered corridors linking campus buildings.

The advances of the Progressive Education Movement also continued to shift school plant design. Campuses were increasingly differentiated, with administration buildings, auditoriums and gymnasiums, separate classroom, shop, and specialty wings, and cafeterias. Adequate indirect lighting and ventilation were provided through the use of generous bands of windows, including multilight sashes, casements, and clerestories. Stylistically, these buildings were less ornamental than their 1920s period-revival counterparts. An emphasis was placed on traditional Southern Californian styles, such as the Spanish Colonial and Mission Revival. Other styles included Streamline Moderne, Art Deco, and Late Moderne. Much post-earthquake reconstruction was funded through the Public Works Administration (PWA), and many schools exhibit a range of PWA Moderne styles.



Figure 12. Reseda Elementary School, 1936. The spare Mission Revival style was in keeping with the post-Field Act requirement for one-story massing and the post–Long Beach Earthquake trend to design in the “traditional Southern Californian” mode. Source: LAUSD.



Figure 13. Susan Miller Dorsey High School, Cogerty and Noerenberg, Los Angeles (1937). Source: LAUSD.

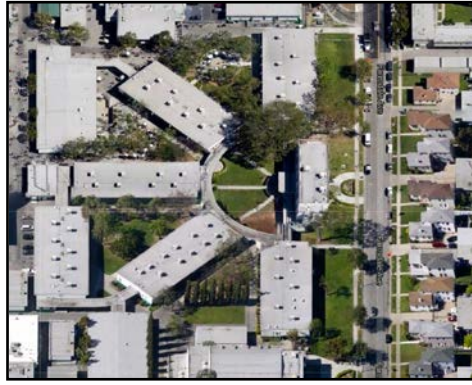


Figure 14. The inventive site plan of Dorsey High School. Source: Google Maps, 2013.

THEME: LAUSD | EARLY EXPERIMENTS IN THE MODERN, FUNCTIONALIST SCHOOL, 1933–1945

Although this category shares general characteristics with the preceding theme (Post–1933 Long Beach Earthquake Schools), it is distinguished by an experimental approach to school design that emerged during the Great Depression. Such schools reflect the most avant-garde ideas of the era and the beginning of modern, functionalist school design. Stylistically, the proto-modernist school need not be purely “modern” in the sense of lacking any ornamental detailing. The significant changes reflected a philosophy that went a step further than did the schools of the 1920s in designing for function and integrating school buildings with exterior spaces. During the postwar construction boom, many of the same ideas that characterized these experimental schools became the norm throughout Los Angeles and the United States.

The notable differences between the two themes (or periods) relate to scale, site plan, and functional, child-centered design. The proto-modernist school has an explicitly domestic scale, with low ceilings and a lack of monumental design or massing. These schools generally exhibit a decentralized, nonhierarchical campus, with a strong geometric patterning applied to the site plan. Classroom wings generally consist of one-room-deep rectilinear buildings, lined with adjacent patios and landscaping. Building plans clearly express their function, with (usually) one-story massing, generous expanses of glazing, window sizes and configurations tailored to sun patterns and doors opening directly onto patio areas and courtyards. The preferred typology was the early version of the “finger-plan” school, with rectilinear classroom wings extending from a central axis.

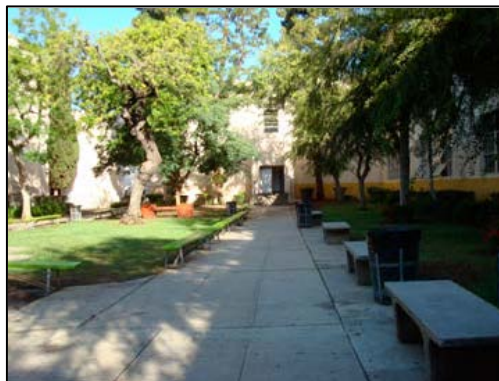


Figure 15. Emerson Middle School, Richard Neutra (1937–1940), example of open green spaces lining classroom wings. Source: LAUSD Emerson Middle School, Pre-Planning Survey, 2011.



Figure 16. Baldwin Hills Elementary School, Robert Alexander, architect, Los Angeles (1949–1951). Source: Getty Research Institute, Shulman Archives.



Figure 17. Early finger-plan school, Baldwin Hills Elementary School. Source: Google Maps, 2013.

THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN FUNCTIONALIST SCHOOL PLANT, 1945–1969

By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). But, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion-like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s–1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school.



Figure 18. Orville Wright Middle School, Spaulding & Rex (1948–1952); balanced, indirect classroom lighting. Source: LAUSD Orville Wright Middle School, Pre-Planning Survey, 2012.



Figure 19. The “East LA Blow Out,” Lincoln High School, 16 September 1968. Students protested for “better schools for Mexican Americans. Sal Castro was a teacher there and spearheaded the movement.” Source: LAPL, Herald-Examiner Collection, 00041327.

THEME: LAUSD AND THE CIVIL RIGHTS MOVEMENT, 1954–1980

This theme of significance begins with the filing of the landmark U.S. Supreme Court case *Brown v. The Board of Education, Topeka, Kansas*. Although *Brown v. Board of Education* addressed state laws that did not exist in California—namely, laws allowing for racially segregated public schools—this case and the Civil Rights Movement helped generate and focus attention on related issues in Los Angeles. Issues touched on racial division and cultural identity, equal access, and how to create more balance and diversity in public schools. Signaling the end of this period of significance is the U.S. Supreme Court decision effectively ending mandatory school busing as a solution to racial imbalance in California’s public schools. Although this issue continued to form part of the social context for LAUSD, this period captures an era of intense debate and activism on the part of community members, parents, politicians and jurists, as well as teachers and administrators.

A school eligible under this theme might be the site of significant integration initiatives, challenges, or community activities related to the Civil Rights Movement and school integration. This might include initiatives for equal access to schools and/or to employment opportunities in LAUSD schools.

In addition, a school might qualify under this theme for a long-term association with a figure who was significant in the Civil Rights Movement and school integration.



Figure 20. “School integrationists,” in a 1963 hunger strike for better racial integration of Los Angeles public schools. Source: LAPL, Shades of Los Angeles, #00041605.



Figure 21. Postwar school: Chatsworth High School (1963), curved outdoor corridor and mature landscaping of student quad and courtyard. Source: Sapphos Environmental, Inc., 2013.



Figure 22. Chatsworth High School, classroom. Source: Sapphos Environmental, Inc., 2013.

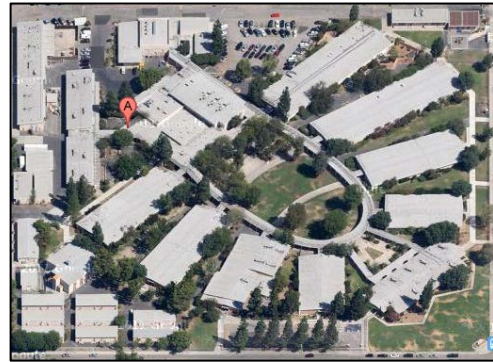


Figure 23. Chatsworth High School, aerial view of site plan and design. Source: Google Maps, 2013.



Figure 24. Chatsworth High School, courtyard. Source: Sapphos Environmental, Inc., 2013.



Figure 25. Chatsworth High School, courtyard. Source: Sapphos Environmental, Inc., 2013.



Figure 26. Old Farmdale School circa 1950. Source: LAPL Photographic Collection.

III. HISTORIC CONTEXT AND BACKGROUND

This section provides a broad overview of the trends and patterns of development that shaped the facilities of the Los Angeles Unified School District since its founding in the 1870s. The following eras are covered:

- A. Founding Years, 1870s through 1909
- B. Progressive Education Movement: Standardization and Expansion, 1910 to 1933
- C. Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1945
- D. Educating the Baby Boom: Postwar Expansion and the Modern, Functionalist School Plant, 1945 through 1969

Each era is broken down into three sections: (1) National Context and Developments, exploring the trends in educational methods and curricula, as well as background information on school plant design; (2) Effects on School Buildings and Campuses, exploring how these trends resulted in changes to school plant facilities; and (3) Los Angeles City School Districts: Developments and Context, presenting Los Angeles–specific events that resulted in changes to educational policy and school plant design in Los Angeles and the region as a whole.

Sections also include a variety of historic and current photographs, with national and local examples illustrating the trends, patterns of development, and significant themes in the evolution of school plant design. Until 1961, what became the LAUSD comprised two separate entities: the Los Angeles City School District, covering primary education; and the Los Angeles City High School District. Throughout the Historic Context Statement, references to the district therefore reflect the administrative structure at the time (as the Los Angeles City school districts).



Figure 27. Los Angeles High School, 1891.
Source: LAPL Photo Collection.



Figure 28. Palos Verdes High School, 1961.
Source: Getty Research Institute, Shulman Archives.

A. FOUNDING YEARS: 1870s THROUGH 1909⁵

Only three schools are known to remain from this early era in the history of the Los Angeles Unified School District: the Old Vernon Avenue School (1876; 450 N. Grand Avenue); the Old Farmdale School (1889; 2839 N. Eastern Avenue, in El Sereno); and, in present-day Santa Monica, the Old Canyon School (1894), now serving as the library for an elementary school. The Old Farmdale School, a Queen Anne Revival–style building attributed to architects Bradbeer and Ferris, was restored and rededicated as a museum in 1976.

Few resources remain, but the late-nineteenth- and early-twentieth-century context helps set the stage for the eras that followed. During the period considered in this context, school architects and educators shared a sense of urgency in describing the importance of the safe, well-designed school. Whether in 1906 or 1966, they used remarkably similar language to describe their era’s contributions to designing the ideal “modern American school.”

Describing the district’s founding years helps illustrate the evolution of school plant design and the challenges faced by successive generations of architects and educators. Well into the postwar period, late-nineteenth-century educational philosophies and facilities remained a point of comparison, an example of what to avoid. In 1965, writing about modern Californian school design, State Department of Education official Charles D. Gibson declared that “big block schools with internal corridors and windowless classrooms are becoming a rarity, with most schools returning to the campus plan concept, using landscaped courts and natural materials to create informal environments.”⁶

In fact, by 1965, the battle against the big-block school had long since been won. But the specter of the imposing, factory-like school plant remained the example against which new ideas were measured.



Figure 29. Old Vernon Avenue School, built in 1876. Source: LAUSD Vernon City Elementary School Pre-Planning Survey, 2011.

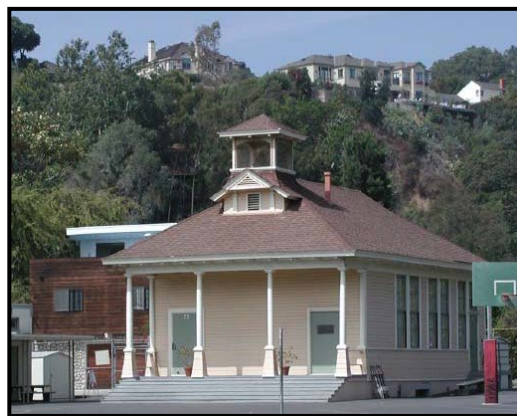


Figure 30. Old Canyon School, built in 1894. Source: LAUSD.

NATIONAL CONTEXT | DEVELOPMENTS

In the early years of American school design, the most typical building type for educational facilities had been the wood-framed, one-room schoolhouse—a basic typology that attempted “to be all things for all children,” as well as all things for all teachers and educational methods.⁷ Rapid urbanization throughout the United States called for a new approach. Large-scale schools, with classrooms accommodating several dozen pupils, were needed. With the increased demand, public schools started separating children into grades, with separate classrooms for each rather than a single large room housing all grades.

The new building typology tended to be rectangular in plan, with multistory massing, sanitation systems and facilities placed in a basement, and classrooms designed for large groups of students seated in rows. High ceilings accommodated tall windows, which provided the main source of interior illumination. In his study of the history of the American school, R. Thomas Hille observed that “a typical urban school from this era was organized in a single block of one or two floors, with standardized classrooms on each floor organized symmetrically around a central hallway. ... School furniture was already standardized and typically included individual desks organized in rows and bolted to the floor.”⁸

This typology fit the curricula and methods of the time. Before the Progressive Education Movement gained momentum throughout the United States, beginning in the 1880s, primary and secondary schools continued to follow traditional methods emphasizing rote memorization and discipline, in an atmosphere that was regimented and authoritarian (rather than flexible and participatory).

In this respect, Los Angeles’s early schools were similar to schools around the country. Los Angeles educators and administrators followed the philosophy of Johann Heinrich Pestalozzi (1746–1827), an influential Swiss pedagogue and reformer, and his “emphasis on the disciplinary values of the subjects taught.”⁹



Figure 31. Old Farmdale School, opened in 1899.
Source: LAUSD.



Figure 32. 79th Street School, South Central Los Angeles (now McKinley Avenue Elementary School), shown in 1925 aerial photo. Source: LAPL Photo Collection.

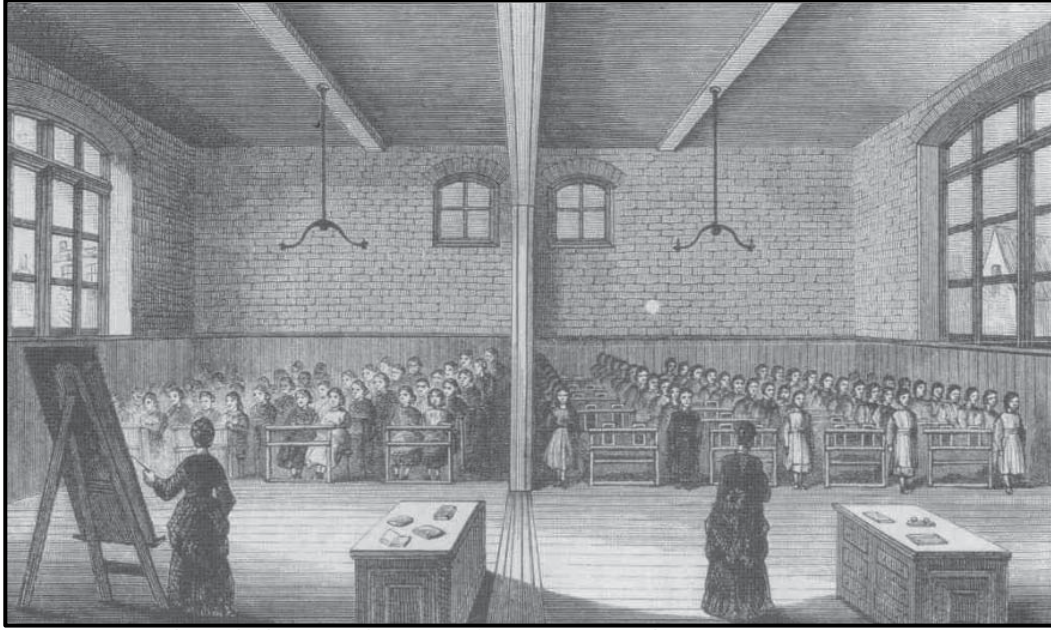


Figure 33. Typical British classroom design, as of 1900. Source: Baker, 2012.

Pestalozzi's thinking mirrored the trends of American education at the time, with an emphasis on memorization and recitation. In Los Angeles schools, "All pupils did the same lessons in the same way. There was no recognition of individual differences."¹⁰ Early school officials emphasized the "disciplinary values of their subjects" and uniform teaching methods for all students and classes.¹¹

At this time, the effects of the Progressive Era—the period of social activism and political reform associated with the 1890s through the 1920s—were becoming evident in the public schools. In Los Angeles, when promoting the activities and accomplishments of the schools, district officials began describing a general liberalization of teaching methods and curriculum. The new programs were based less on discipline—including, as one official proudly pointed out, a diminishing reliance on corporal punishment—and were more participatory and tailored to children's nature and needs.

In this way, as the nineteenth century came to a close, "the foundations were laid against regimented instruction," in Los Angeles as elsewhere; "the concept of the pupil as the passive recipient, the sponge soaking up information in preparation of adult life, was abandoned. The broader concept of education as an integral part of the life process, of learning by doing through creative participation, slowly replaced the old accepted theory."¹² In subsequent decades, these evolving philosophies would also shift ideas about school plant design.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

It took time for school plant design to catch up with evolving educational methods. As noted Connecticut school architect Warren Richards Briggs (1850–1933) argued in 1906, “no one will deny [that] the public system of education has been carried in our country during the last half century to a degree of perfection heretofore unknown to any country of the world.” Yet, he wrote, “can it be said, however, with equal assurance that our school buildings have kept pace with our educational systems? Are they as complete in their design and construction as the educational system in its plan and equipment?”¹³

Among architects and educators it was widely recognized that reform and standardization were needed. During the late nineteenth century, especially in urban schools, systems for sanitation and safety “were less than ideal and varied considerably from location to location, with little in the way of regulatory oversight.”¹⁴ This area was the first to be widely studied and significantly changed during this time, as many resources were devoted to developing and improving health and safety standards and systems.¹⁵

In Briggs’s 1906 book, *Modern American School Buildings*, the architect contributed one of many guides available for standardized schools. The scale of Briggs’s schools remained imposing and monumental, with the entire school contained within a single, multistory building. But the new standardized schools offered the best building infrastructure available at the time, with improved heating, ventilation, and sanitation systems, as well as recommendations for the ideal size and configuration for windows, doors, emergency exits, and other features.

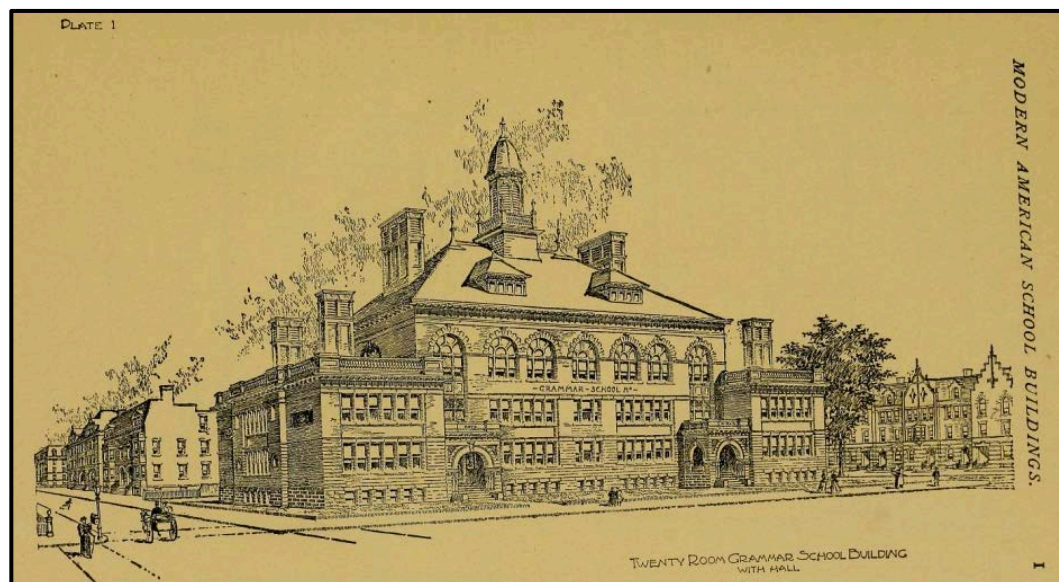


Figure 34. The “Modern American School,” as of 1906, a 20-room elementary school. Source: Briggs, 1906.

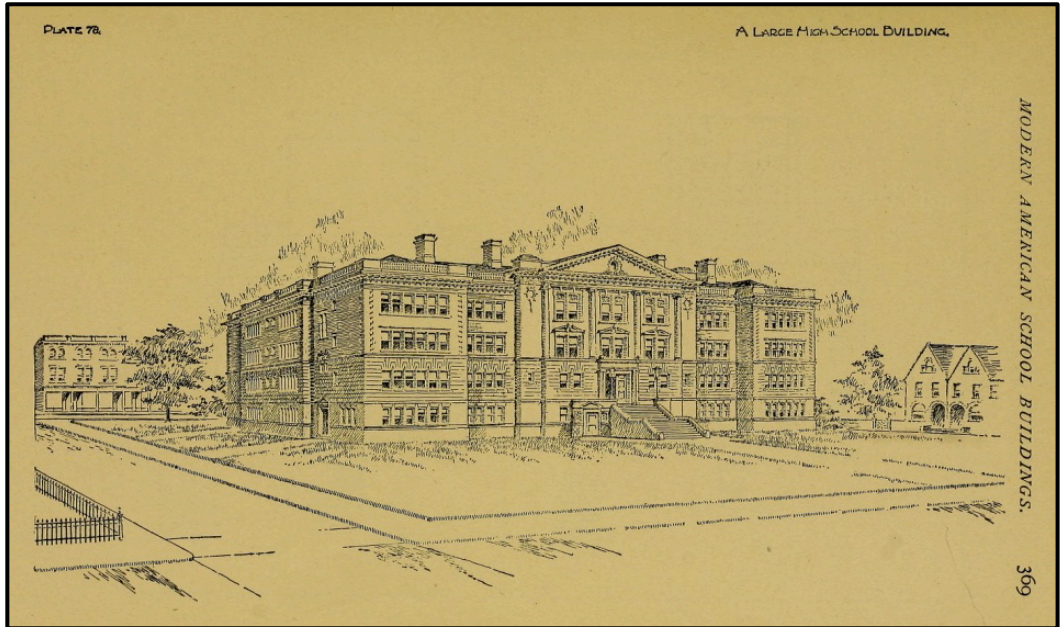


Figure 35. From *The Modern American School*, 1906. One of many available reference guides for standardized school construction. Illustration shows sketch for a four-story, neo-classical “Large High-School Building.” Source: Briggs, 1906.

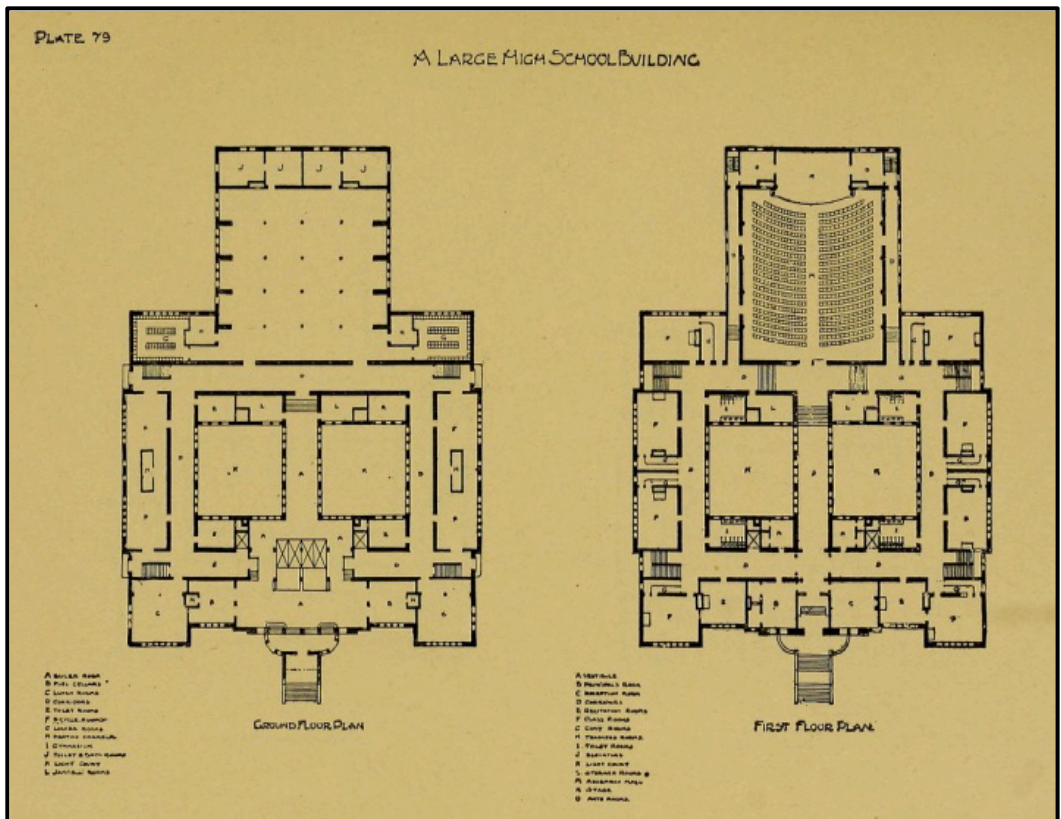


Figure 36. From *The Modern American School*, 1906. Plan for first two stories of neo-classical “Large High-School Building.” Source: Briggs, 1906.



Figure 37. Original Manual Arts High School (1910), shown in circa 1925 aerial photograph; demolished and rebuilt following the 1933 Long Beach Earthquake. Source: LAPL Photo Collection.

In the early twentieth century, the movement to standardize and improve schools gained momentum and took off in earnest. American school architecture “advanced from the low point of complete neglect to a high point of monumentalism. School buildings changed from small, shabby units to large, beautiful edifices, glorifying the people’s devotion to education.”¹⁶ Education-related organizations and trade publications around the country helped forward the cause. Overall, urban school plants still tended to be imposing “big-block” institutions “designed to house as many students as possible.”¹⁷

But the seed had been planted among a national network of educators and administrators that the classroom should be a comfortable, safe place. Advances in health and hygiene research translated into changes in school plant design. By the end of the nineteenth century, for example, a better understanding of ventilation and disease prevention, in particular for tuberculosis, affected approaches to fenestration and building siting and led to an increasing emphasis on cross-ventilation. Overall, the issue of how to design the most healthy and efficient school remained the topic of intense study and debate, as these ideas continued to evolve through the first quarter of the twentieth century.

LOS ANGELES CITY SCHOOL DISTRICTS | DEVELOPMENTS AND CONTEXT

As elsewhere, the earliest schools in Los Angeles were utilitarian and vernacular in style, constructed to serve newly established communities emerging throughout the region during this time. Early schools were generally wood framed and sheathed, with a simple communal room or two serving all of the school’s needs. The late nineteenth century was the era that “introduced the bell tower as a signature element of a school building, perhaps modeling school buildings on early churches.”¹⁸ Three late-nineteenth-century school buildings survive in Los Angeles.

As school buildings turned from vernacular, domestic-scaled forms to more monumental statements of civic pride, the model became Beaux-Arts Academic Classicism: “The Classical Revival was especially favored, and impressive porticos of colossal columns

proclaimed the importance attached to education.”¹⁹ School buildings came to resemble grand civic buildings, with monumental scale, classical styling, symmetrical design composition, and a rational program. Spanning the nineteenth and twentieth centuries, this era brought improved technologies and industrial-strength materials, allowing buildings to rise to two or three stories in height. Most of these buildings were unreinforced masonry construction—more fireproof, but also more vulnerable to earthquakes—and many of these schools were destroyed or damaged beyond repair by the 1933 Long Beach earthquake.

Formation of the Los Angeles City School Districts

In 1872, little more than two decades after California’s entry to the United States, the Los Angeles City School District was founded. The timing of the district’s establishment was tied to state legislation requiring, among other things, that each city in California create a board of education. In 1879, amendments to the state constitution gave cities the authority to establish school curricula and methods, and Los Angeles educators set to the task of developing a program of study for their new district. Curricular improvements and reform in Los Angeles, as elsewhere, remained the topics of ongoing debate and refinement throughout the late nineteenth century and into the twentieth.



Figure 38. Central School (1873) at Temple and Broadway Streets in downtown Los Angeles, 1931 photo (demolished). Source: USC Digital Archive.

As the new district was launched, two schools were constructed in the early 1870s. One of these was the wood-framed Central School, located at Temple and Broadway Streets (then Fort Street) in downtown Los Angeles. Constructed in 1873 for \$25,000, Central School became home to the county’s first high school, which occupied four rooms of the two-story building.

In a 1936 series of articles exploring “landmarks almost forgotten in the march of progress,” the *Los Angeles Times* recalled that when the school was constructed, it was “so big and grand that they came from miles around to see it, quite the finest school south of San Francisco. Its lines were classic, and it had a cupola with a clock in it. ... The teachers like the wide corridors and generous windows and the transoms over the doors. The earthquake, which did so much damage to newer school buildings, didn’t harm the [Central] school in the least.”²⁰ In 1882, Los Angeles’s first teaching college, the State Normal School, was constructed downtown near the present-day site of the Los Angeles Public Library.

Early Currents of Change

One shift during this period was a growing sense that public education and schools should be a community affair, with a mission to serve the needs of the population. One example of this is seen in a citywide poll launched in 1900 by the Los Angeles Board of Education. With an extended list of questions, the poll was distributed to all city residents in order to solicit input on district curricula and teaching methods. The stated goal of the board in creating the survey was to initiate “the freest and most open discussion of public school work by all interested.”²¹ All citizens of Los Angeles were asked to offer opinions on the subjects taught at all grade levels, with a particular amount of attention going toward the newly established kindergarten program, as well as the amount of homework assigned and classroom conditions. After surveys were distributed throughout the city, results were tallied and discussed at a public meeting, in what would ultimately become an ongoing effort to solicit community input.

Similarly, in this era, a range of special-needs schools were established, including facilities for the deaf, blind, physically disabled, or cognitively impaired; special facilities were also provided for children suffering from tuberculosis. In addition, vocational schools with more hands-on, skills-related curricula were established in these early years. The 1904 Polytechnic High School was one example of this initiative.

The Boom of the 1880s and Los Angeles City Schools

In the 1880s, as has been well documented, Los Angeles experienced a significant population boom. One factor fueling this expansion was a speculative land rush, fueled by the completion of the transcontinental railroad and price wars between competing railway lines. The “boom of the 1880s” brought prosperity and development throughout Southern



Figure 39. Los Angeles’s first teaching college, State Normal School (1882), downtown Los Angeles, in a circa 1900 photo. In the 1920s, this site became the location for the Los Angeles Public Library. Source: LAPL Photo Collection.

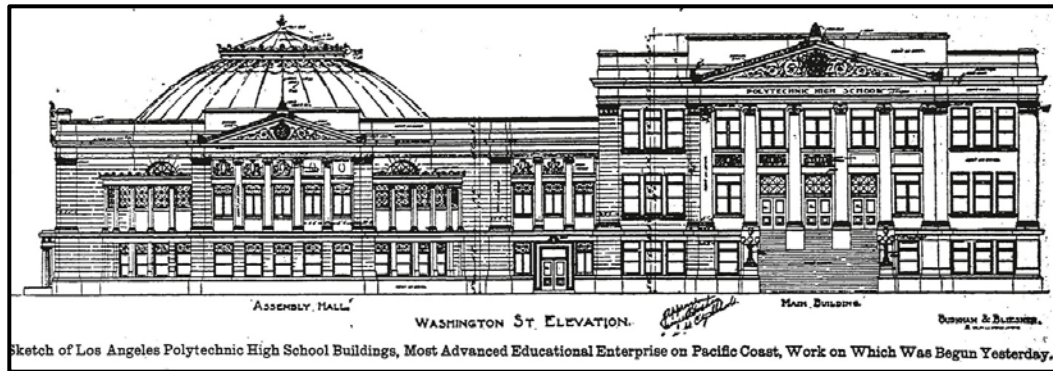


Figure 40. Elevation sketch of Los Angeles Polytechnic High School (1904), by Los Angeles architects Burnham & Bliesser. Source: Los Angeles Times, July 9, 1904.

California (though the boom had collapsed by 1890). Between 1880 and 1900, the population of Los Angeles expanded tenfold, growing from 10,000 to more than 100,000. In another decade, these numbers would triple, expanding to nearly 320,000 by 1910, greatly testing the capacity of the fledgling school district and board.

Although the district carried out an extensive building campaign during its first decade, keeping pace with population growth was a constant struggle. The city's schools quickly became overcrowded. As of 1874, the Los Angeles Board of Education recorded a total of six schools with nearly 900 students in the district. Within one decade, by 1884, the number of students within the district had nearly quadrupled, expanding to almost 3,500. By 1890, the Los Angeles Board of Education operated a total of 178 classrooms, which, in the spirit of the times, were classified not in terms of grade level but according to classroom capacity to house students.²²

Rapid population growth produced multiple problems for the fledgling Los Angeles Board of Education and school districts. Among them, according to the board's 1884 annual report, were a lack of scholastic uniformity among schools; significant gaps in the educational levels of pupils; crowded classrooms, which necessitated turning students away; and poor financial support. In addition, board president Frank A. Gibson "bemoaned" a governing structure by which state boards of education lacked the authority to issue bonds for school-building campaigns.²³ Within five years of the publication of this annual report, state policy changed. Cities were given the authority to issue bonds for municipal projects and improvements, including school construction. In

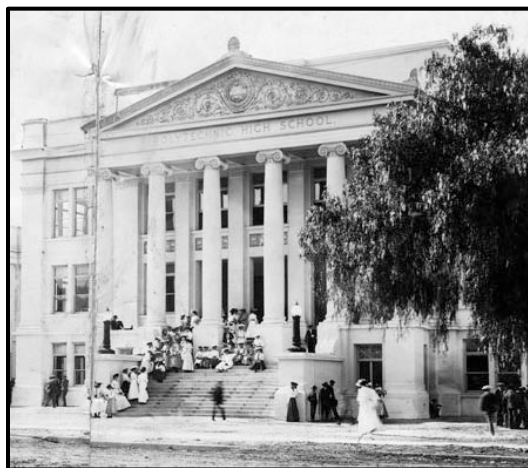


Figure 41. Neo-Classical Los Angeles Polytechnic High School (1904), Burnham & Bliesser (demolished). Source: LAPL Photo Collection.



Figure 42. Grand, neo-classical high school beyond the city core: San Fernando Union High School (circa 1900), shown in a circa 1900 image (original location unknown). Source: USC Digital Archive.

1899, the City of Los Angeles sold bonds amounting to \$200,000, generating proceeds for a turn-of-the-century building campaign for new schools.²⁴

The funding provided through the bond measure temporarily helped ease overcrowding. However, the respite was short-lived. The board and district struggled to accommodate ever-expanding enrollment figures. Reflecting on the school year 1892–1893, the superintendent of the Los Angeles Board of

Education wrote, “There seems to be no way to get entirely rid of these half-day schools in our rapidly and continuously growing city.”²⁵ In the 1900s, this problem remained an issue, with rapidly increasing enrollment each year. Indeed, overcrowding continued to represent one of the most pressing challenges facing Los Angeles school districts throughout this era (and throughout the twentieth century).

Civic Pride and the Turn-of-the-Century School

On the city periphery, as undeveloped lands slowly gave way to residential and farming communities, utilitarian wood-framed schoolhouses continued to serve the needs of new communities. But in the city core, grand new schools reflected the city’s economic and institutional success. In its first few decades, the district added many monumental large-scale schools. Designed by the city’s nascent field of architects, the buildings were generally self-contained, multistory buildings exhibiting the palette of styles popular in the era, including late Victorian, Romanesque, Classical Revival, and Beaux-Arts styles. The district’s educational facilities and slowly modernizing methods mirrored Los Angeles’s transformation from an outpost of 10,000 in 1880 to a metropolis of nearly 320,000 by 1910.²⁶ Of the district’s rapid growth, the *Los Angeles Times* noted in 1898 that

while it is altogether unnecessary to draw comparisons, it may be said that there is no other city in the United States that can show a proportionately great increase in school population. To say that Los Angeles is proud of her school record and of the large and well-appointed buildings erected for the education of her children is but to repeat that which the parents of the children well know and appreciate. No expense has been spared in providing every modern acquirement.²⁷



Figures 43. and 44. A rare remnant of the neo-classical era in school design: San Fernando Middle School, Auditorium, John C. Austin, architect (1916). Source: Heumann & Associates and SAIC for LAUSD.

On January 1, 1898, the *Los Angeles Times* took stock of a decade of expansion of the city's public schools, which by then included 57 facilities with nearly 400 classrooms, estimated in value at \$1.25 million. The new, progressive tone was evident in the article. "Play is the business of childhood," the reporter wrote, so the new kindergarten facility is "the playschool for the little ones," with a day filled with varied arts and crafts activities. "By those simple methods, which afford an amusement rather than a task, the mind of the child is set in motion."²⁸

The monumentality and beauty of the city's public schools were also celebrated as forwarding the cause of education. The fine buildings, along with updated classroom activities and subjects, would inspire the older pupil to attend school rather than "lie awake all night scheming how he might play hookey all next day." "How different it all is from days gone by," the reporter concluded wistfully.²⁹

In this way, for Los Angeles, providing the most modern, up-to-date curricula and facilities became important symbols of the city's growth, economic success, and stature as an urban center worthy of comparison to San Francisco, its well-established rival to the north. With the 1908 groundbreaking for the Los Angeles Aqueduct, and the subsequent wave of land annexations to the city, the area covered by the Los Angeles City School Districts would expand even more in the 1910s and into the 1920s, bringing new challenges for the city's school districts.

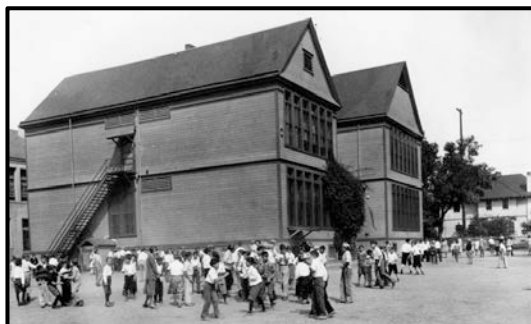


Figure 45. 10th Street Elementary School, 10th St. and Olympic Blvd., Los Angeles, in 1926 photo. The oldest extant building on campus is the Administration Building, constructed in 1922. Source: LAPL Photo Collection.

B. PROGRESSIVE EDUCATION MOVEMENT: STANDARDIZATION AND EXPANSION, 1910 TO 1933

“One of the important functions of school architecture is to sell education to the public. This is accomplished by making attractive that side of education the public sees most.”

—John J. Donovan, *School Architecture: Principles and Practices*, 1921

NATIONAL CONTEXT | DEVELOPMENTS

Throughout the early part of the twentieth century, Progressive Era reform inspired a broad restructuring of educational methods and curricula in the United States. Reform was guided by the theories of educators and philosophers such as John Dewey (1859–1952) of the Columbia University Teachers College. Dissatisfied with authoritarian teaching methods emphasizing passivity and rote learning—and factory-like schools—Dewey and others argued that a student’s natural curiosity and real-life needs should shape the classroom environment and curriculum. Dewey and the Progressive Education Movement stressed “learning both abstract concepts and real skills through projects ... children should move freely through classrooms, use materials other than textbooks ... explore the physical world through hands-on projects.”³⁰

By the 1910s, the Progressive Education Movement had gained momentum. Educators and administrators interested in reform advocated for more hands-on, child-centered methods and curricula. Key to this movement was the notion that the classroom should flex to the needs of each student. Anthropologist William Henry Holmes (1846–1933) thus noted the change in 1912: “Within the past few years we have been coming to measure education by a new standard, the standard of individual achievement. This means that we have begun to differentiate the abilities of children ... not in terms of a general standard, but in terms of what each individual is able to do within the range of his own ability.”³¹ This new standard brought changes to classroom dynamics, school structures, and to schools themselves.



Figure 46. Los Angeles High School (1917), in 1925 photo. Although the school still occupies this site, at 4600 W. Olympic Boulevard in Central Los Angeles, this building is no longer extant; most of the existing campus core was constructed between 1964 and 1978. Source: LAPL Photo Collection.

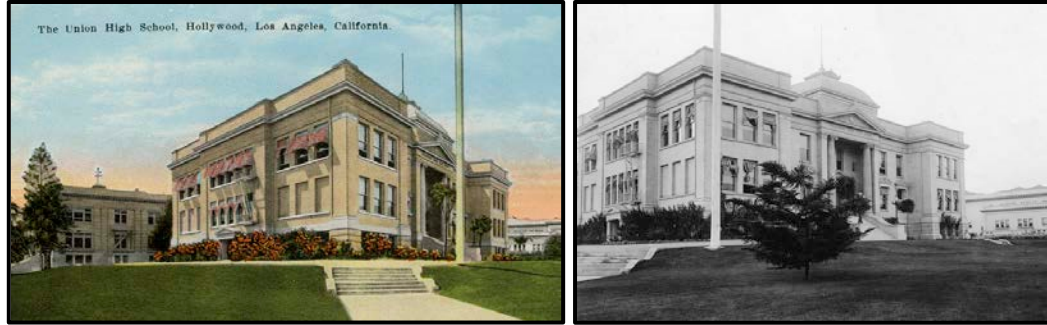


Figure 47. Lincoln High School (1918), northeast Los Angeles, shown here in circa 1925 photo. After sustaining significant damage during the 1933 Long Beach Earthquake, the school was reconstructed beginning in 1936/1937. Source: LAPL Photo Collection.

The 1910s in Los Angeles also brought a number of developments that ultimately affected public schools. In addition to the 1913 opening of the Los Angeles Aqueduct, the film industry settled in the Los Angeles area during this time, and its economic strength drew new residents. Also in the early 1910s, the region's first collegiate school of architecture was taking shape at USC. By 1925, USC began conferring the region's only professional degree in architecture.³² This helped establish the city's architectural profession and culture by training architects and attracting faculty throughout the country.

During this period, the role of the public school also changed, with a greater focus on serving community needs. An expansion of specialized programs and facilities served new groups, including working teenagers and adults. The school plant itself also took on a greater role as a community-gathering place, with auditoriums, outdoor spaces, and public rooms sited and designed to double as gathering areas. Artfully designed and landscaped approaches and entrances to schools represented an acknowledgment of this change and the need for positive relations with the community. Summing up the changes to educational philosophy in the early twentieth century, W. H. Crocker (1861–1937), editor of *The American Architect*, wrote,

During the past quarter century, each succeeding year has witnessed the broadening development of public education. The relation of the school to the community has radically changed. Systems of education have been evolved as the result of the careful observation of those engaged in pedagogy, and these systems have become broadened and extended. ... With this evolution and extension of educational methods it was logical to assume that the modern schoolhouse would keep pace in its designing and planning.³³



Figures 48. and 49. Civic pride and the monumental public school. On the left: Historic postcard of Union High School (1910), later Hollywood High, Hollywood. Source: LAPL Photo Collection. On the right: Union High School in a circa 1915 photo. Located at 1521 N. Highland Avenue, the building is extant but significantly altered; it is currently in use as the Hollywood High School Museum. Source: LAPL Photo Collection.

In fact, modern schoolhouse design was initially slower to keep up with the times. But by the early 1920s, the Progressive Education Movement had brought significant changes to two main realms: first, teaching methods and curricula became more hands-on and individualized, less rigid and authoritarian; and second, environments for learning were transformed to facilitate these new ideas. As architectural historian Amy Ogata wrote, “Historians of education are still divided on the real impact of progressivism on American education, but its effect on the *architectural* discourse was profound and enduring.”³⁴

EFFECT ON SCHOOL BUILDINGS AND CAMPUSES

Educational philosophies and methods—and eventually schools themselves—changed substantially during this period. For their communities, school plants remained important symbols of civic identity and pride. The buildings were increasingly functional, but the wish to create beautiful temples to learning, reflecting the community’s aspirations for itself and its youth, remained strong: “There is nothing more impressive or hopeful in American democracy than the devotion of the people to education. ... Unconsciously the spirit has been to represent truly this national devotion to education in the architecture of public schools.”³⁵

As architects and designers began experimenting with the new ideas of this period, school plants became “more flexible and adaptable, and more accommodating of the new methods of teaching.”³⁶ The keys became functionality, adaptability, and programmatic differentiation of buildings and spaces, for interiors and for the site overall. The increasing emphasis on natural light and fresh air brought the incorporation of bays of windows, which would march across the building elevations and span each floor of classroom wings.



Figure 50. Southern Californian flavor of Allison & Allison's Grammar School No. 2, Glendora, California. Source: Donovan, 1921.

With a growing network of education-related organizations and publications, the push for modernization was a shared project for architects and educators around the United States. One of the era's most defining documents in this respect—one that became a standard office reference for architects—was John J. Donovan's 1921 *School Architecture: Principles and Practices*. Encyclopedic in scope, Donovan's volume offered a richly illustrated guide with the latest ideas in everything from construction to costs, campus planning and landscape development, to each feature of a modern school plant, whether vocational, elementary, junior, or high school. A wealth of drawings and floor plans illustrated the ideas described by Donovan and other school architects in the volume. In 1954, renowned school architect William Wayne Caudill referred to Donovan's book as "the 'bible'": "Any account of the architectural development of school buildings in the United States certainly would not be complete without a statement concerning the writings of Donovan."³⁷

John J. Donovan's School Architecture: Principles and Practices

A native of Massachusetts and alumni of the Massachusetts Institute of Technology, John J. Donovan (1876–1949) moved to Oakland, California, in 1911 to supervise the construction of Oakland City Hall. Donovan resided and practiced in Oakland for the rest of his career, completing many high-profile commissions including libraries, schools, and infrastructure projects. Although he lived and practiced in Northern California, Donovan's book became a standard reference throughout the United States.

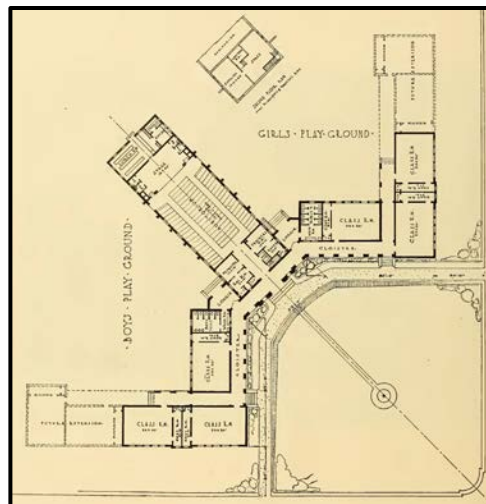


Figure 51. Open-air plan, Allison & Allison's Grammar School No. 2. Source: Donovan, 1921.



Figure 52. Open-air classrooms in northern and southern California. On left, Leland Stanford Jr. University Elementary School, Palo Alto, California. On right, Francis W. Parker Elementary School, San Diego, California. Source: Donovan, 1921.

Shift away from Monumental Scale and Beaux-Arts Classicism

Donovan documented and proposed examples of how to plan for the new school. In terms of scale, the schools were less monumental, less imposing. For primary grades especially, Donovan wrote, “Vainglorious attempts to build monumentally are fatal to both child and adult, for instead of attracting the child’s interest they are most likely to repel and make fearful.” Rather, he continued, “the architecture of the elementary school should be symbolic of quiet simplicity, expressing in permanent materials much the same charm that the little child has for those who appreciate and love children.”³⁸

Stylistically as well, from the 1910s through the 1920s, there was a move away from Beaux-Arts Classicism and Classical Revival styles toward the period-eclectic styles commonly used in domestic architecture. The significant innovations and departures from earlier eras were in building plan, layout, and interior program. Using a range of national examples, Donovan’s illustrations and narrative showed a new approach to school design that was focused on artful, functional site planning, and coordination of campus buildings.

During this time in Southern California, as in many other parts of the region, architecture was entering a golden age. Responding to the boom in construction, architects and designers were both meeting and fueling demand for the menu of period-eclectic styles popular at the time. In Southern California, architects drew on the heritage of the region, including the Arts and Crafts movement and Spanish Colonial past, to forge a unique architectural identity.

Importance of Indoor-Outdoor Integration

One of the most significant shifts during this era was the emphasis on outdoor spaces in schools. In 1910, in another guide for designing “modern” schoolhouses, architect Alfred D. Hamlin observed that “however perfect the heating and ventilating plant, and however faultless its operation, let it be clearly understood and always remembered that no artificial



Figure 53. A lack of monumentality, low scale, and U-shaped plan characterize John J. Donovan's Stanford University Elementary School, Palo Alto, California. Source: Donovan, 1921.

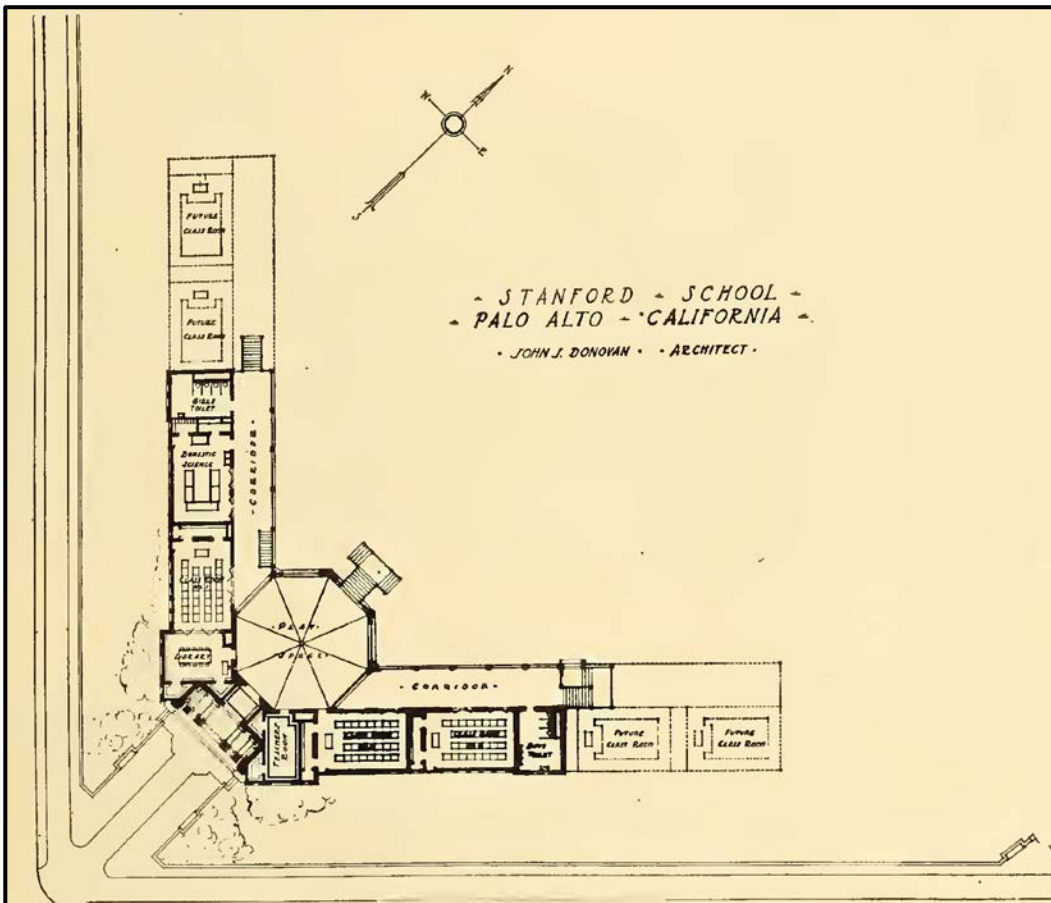


Figure 54. U-shaped campus plan, Stanford University Elementary School, Palo Alto, California. The plan allows for easy indoor-outdoor spaces as well as expansion as the school grows. The locations for four "future class rooms" are sketched in at each end of the plan. Source: Donovan, 1921.

heating and ventilation can ever take the place of fresh outdoor air and sunshine.”³⁹ Rapid urbanization throughout the United States brought increased acknowledgment of the need for and benefits of outdoor activities. During this era, Hille wrote, “Connections to the out-of-doors were important for reasons of health and hygiene, providing access to natural light, fresh air, and exercise, and places for new kinds of learning activities.”⁴⁰

These ideas translated into clear changes in school design. Plans became “more open and interconnected, with more transparency and spatial complexity—both inside and out.”⁴¹ Schools capturing these ideas in particular abounded in Donovan’s book. Simple changes to the traditional big-block school, such as adding adjacent or parallel wings, created numerous possibilities for outdoor spaces. The school branched out and turned in on itself, with building plans including elongated L shapes, T shapes, H shapes, or U shapes, all of which spread out the interior program and opened up possibilities for courtyard spaces and interconnections.

Many of the examples Donovan used to illustrate the latest ideas were drawn from Northern and Southern California. As Donovan said of these Californian schools, “Elevating the building and spreading its area over more ground brought forth many interesting developments in plan of single units and groups of units which of course led to delightful exterior compositions of the modified Romanesque, Spanish, Italian, English, and modern Renaissance. Thus it is that the school architecture of California has found a permanent spot in the sun.”⁴²

In this respect, California led the way. With its relatively mild climate—not to mention rapidly growing population, need for new schools, and room to grow—Southern California in particular was an early proving ground for the open-air campus and school. (For the region’s residential architecture as well, outdoor living came to exemplify the good life and contemporary design in the “Californian” mode, a label that itself was becoming a marker for the latest ideas.)

This was an idea promoted by the Los Angeles school district officials as well. In 1911, M. C. Bettinger, assistant superintendent of the Los Angeles City School District, told the *Los Angeles Times* that in the city’s schools “the custom of studying and even reciting out of doors is growing. The children take their books and go out under the trees, sit on the benches or the ground.”⁴³ Bettinger said, “In my district I heartily encourage this custom.” He evoked the language of reform when he declared that outdoor study provided a means of “getting away from the factory system of education. ... This is especially desirable in the lower grades, when the children grow restless, and look longingly out toward the fields and the hills.”⁴⁴



Figure 55. One-story scale and E-shaped plan of Fishburn Avenue Elementary School (1923), extant in Maywood, south of Los Angeles, shown here in 1927 aerial photo. Source: LAPL Photo Collection.



Figure 56. The grand approach, unified campus plan, and H-shaped building of John C. Fremont High School (1924), shown in 1932 aerial photo. Located in south Los Angeles, limited portions of the original campus are extant. Note series of window bays on each floor, letting in natural light and fresh air. Source: LAPL Photo Collection.

Site Planning and Layout

Unified site planning, the incorporation of landscape architecture, and a spread-out campus became increasingly important in this era. These qualities enhanced patterns of circulation, created more outdoor gathering spaces, and built connections between campus buildings based on use. Spreading out the plan, Donovan wrote, created “many opportunities for pleasing courts, and approaches, at the same time furnishing to the plan spaces for lawns, shrubs, trees.”⁴⁵

Because of the acreage requirements for an extended campus plan, though, such schools were often added on the city periphery. Donovan wrote, “The trend of the times is to locate secondary schools in sparsely settled sections of the cities where the buildings may be spread out and their height reduced. This is desirable, as it means better lighting, better natural ventilation, fewer fire hazards.”⁴⁶ This was the case in Southern California as well, with many examples of open-air campuses located in what were, at the time, the expanding suburbs beyond the city core. This trend in campus planning also made school plant design, planning, and construction an interdisciplinary project, involving teams of architects, landscape designers, and school facilities personnel.

Buildings were designed with generous setbacks, taking into account adjacent traffic to ensure that classrooms were adequately buffered from street noise. More comprehensive site planning also allowed architects and school planners to think ahead to future expansion needs, in terms of both individual buildings that could be expanded and buildings and structures that might be added.

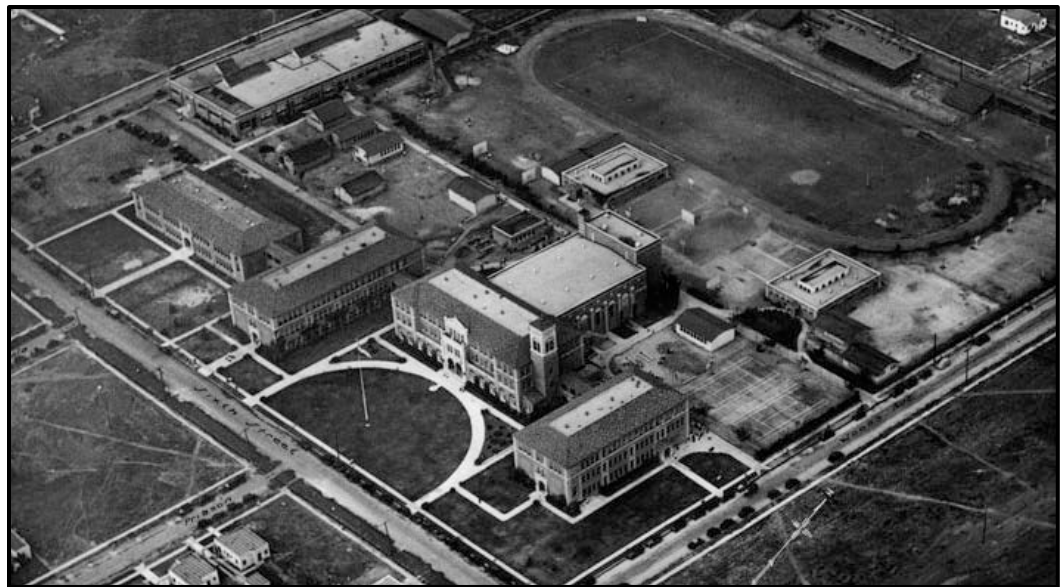


Figure 57. Garfield High School (1925), in 1929 photo. While the campus still occupies this site, very little of the original campus appears intact. Note semicircular driveway and approach to school, generous setback, use of landscaping, and unified campus plan. Expanses of window bays span each elevation. Source: LAPL Photo Collection.



Figure 58. Expansive site plan of Hyde Park Elementary School (1923), south Los Angeles, shown in 1927 aerial photo. The site is still occupied by a school (LAUSD's Young Empowered Scholars Academy), though little of the original campus appears extant. Source: LAPL Photo Collection.

The notion of campus planning was becoming more important as well, especially for upper grades. High schools were expected to be “about double the size” of junior highs, with the “character of the college campus”: “The day has arrived when high schools are being planned as groups of buildings, not more than two or three stories high, with the different departments in separate buildings connected by open or inclosed arcades or wings.”⁴⁷ This trend was best suited to expansive lots, though, rather than dense urban environments. For urban schools without much acreage to work with, multiple stories were often necessary, with classrooms organized in blocks with adjacent wings and double-loaded corridors. Although Donovan conceded that in the “larger cities, due to the cost of land, it may be necessary to have the high school under one roof,” his book illustrated how variations in plans and programs still created opportunities for visual interest and outdoor spaces.

In addition to limited acreage, limited funding played a role in determining how far a campus could spread out across a site. Resources were not always available to design and construct an entire campus. In the Los Angeles city school districts in this period, buildings would be added as enrollment increased, usually starting with the administration building—usually the flagship building of the campus—and classroom wings, then eventually including additional classrooms, a cafeteria, and a gymnasium, depending on the grade level of the school. Purposeful site planning also allowed architects to factor into their designs the patterns of the sun and interior illumination, in order to make the best of natural light in the classroom.

According to Donovan, as of 1921, the finer points of building siting, orientation, and interior lighting had been “carefully documented and thoroughly understood by architects at the time.”⁴⁸ Conventional wisdom held that window areas should equal approximately 40 to 50 percent of the total wall area of the room’s longest side. Windows would extend up to 6 inches from the ceiling, to maximize light. In this way, the repetitive bays of windows, on

each floor with classroom space, became one of the trademark features of 1920s schools in particular. Views out the windows were also considered important, because students should have the chance to look out the window and “rest their eyes at times.”⁴⁹ Ceilings also tended to be high, ranging typically from 12 to 15 feet, “a minimum standard that in many places was regulated by building codes.”⁵⁰ High ceilings helped with ventilation and accommodated tall windows, which provided the main light source until the advent of fluorescent lighting in the 1930s.

LOS ANGELES CITY SCHOOL DISTRICTS | DEVELOPMENTS AND CONTEXT

Building Program

During this time in Southern California, the boom in construction and resources brought a golden age for period-revival architecture. Buildings reflected a wide palette of styles and stylistic hybrids; schools exhibited the ornamental programs of Romanesque, Italian Renaissance, Spanish Colonial, and Collegiate Gothic Revival styles. In terms of materials, schools during this period were generally, though not always, of masonry construction. 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.

While the 1920s boom provided opportunities to test new ideas, the era remained transitional, with some new construction showing the new lower massing and open site plans recommended by Donovan, and some schools still adopting a more monumental decorative program and higher massing. As elsewhere, the most common building plan types during this period were increasingly rectilinear with perpendicular wings in T, H, and U shapes, providing areas for courtyards and outdoor spaces. Ordinarily the interior would consist of classrooms lining a double-loaded corridor.



Figure 59. Craftsman-style Morningside Elementary School (1915), George Lindsey, architect. Morningside Elementary remains LAUSD’s oldest school building still serving its original purpose. Source: LAUSD.



Figure 60. John Burroughs Middle School (1922), central Los Angeles, shown in 1926 aerial photo. This school is extant and shown in the illustration below. Source: LAPL Photo Collection.



Figure 61. John Burroughs Middle School, central Los Angeles, in recent aerial photo. Source: LAUSD John Burroughs Middle School Pre-Planning Survey, 2011.



Figure 62. John Burroughs Middle School (1922). This Renaissance Revival–style school is one of the most intact 1920s schools in the district. Source: LAUSD John Burroughs Middle School Pre-Planning Survey, 2011.

Construction generally unfolded in phases as school enrollment grew. Between the mid-1910s and 1930, elementary schools, for example, were typically constructed in three stages. The first stage usually brought an administrative office, the flagship building of the school, as well as a kindergarten and a nine-classroom wing. The second stage took place once enrollment reached 400, with the addition of more classrooms, facilities for home economics and manual education, and a cafeteria. When enrollment reached 900, the third stage took place, which usually brought a new auditorium, classrooms, or other service rooms as needed. Kindergartens tended to be self-contained and separate from other classes. Gymnasiums, shops, and specialized facilities for home economics, wood shop, and other coursework were also added for junior high and high schools.

During this era, newspapers of the day reflected much civic pride in—and promotion of—the city’s new public schools. In 1914, when Los Angeles’s public schools were singled out as “models for the rest of the state” (in comparison with San Francisco’s schools, which were declared substandard), the bragging rights this conferred made news in the *Los Angeles Times*:

A city is known by the schools it keeps and nobody can ignore the fact that Los Angeles owes no small measure of her astonishing growth, her rapidly increasing wealth and commercial stranding, her desirable American population, to the acknowledged high efficiency of her public school system.⁵¹

Keeping up with ever-expanding enrollment figures remained a struggle, however. By the end of the 1910s, high enrollment and little funding for new facilities had again led to overcrowded classrooms and the need for half-day sessions. In April 1919, the Los Angeles Board of Education took temporary measures, building 30 bungalows to relieve the overcrowding, in advance of bond funding for a wider building campaign.



Figures 63 and 64. Spread-out plan and Renaissance Revival style of University High School (1924), west Los Angeles. Source: LAUSD University High School Pre-Planning Survey, 2011.

The 1920s brought dramatic expansion in school construction. By 1927, \$60 million in bond issues had been sold for the construction of new schools, as well as additions to existing facilities. More than 200 permanent facilities were constructed in 6 years. As a reporter for the *Los Angeles Times* wrote in 1927,

Los Angeles is in many respects such a super city that it is difficult to write about her without using superlatives. In speaking of her public schools, however, one may be pardoned—especially an outsider—for according them high praise, since they are the product of teachers and officers who are laboring unselfishly for the public good.⁵²

Alfred S. Nibecker Jr. and the District Architecture and Building Department

Guiding the Los Angeles school districts through rapid expansion in 1920s, disaster and depression during the 1930s, and the great postwar boom through the mid-1950s was district architect and business manager Alfred S. Nibecker, Jr. In the 1920s, Nibecker began private practice in Los Angeles; he joined the Los Angeles City Board of Education as an architect in 1926, where he remained until his retirement in 1955. In his three-decade career with the school district, Nibecker oversaw the construction of, and contributed designs to, hundreds of school plant projects. Many commissions were completed by the district's in-house staff, but many others were handled by a range of the region's best architects and builders, with an increasing number of firms specializing in school design. In addition to his work with the Los Angeles City school districts, Nibecker was a fellow of the American Institute of Architects and served on the National Committee on School House Construction, the National Advisory Council on School Building Problems, run under the auspices of the U.S. Department of the Interior, Office of Education. In 1955, Nibecker was made an honorary member of the Structural Engineers Association of Southern California, the association's highest award.

Building Code Reform

New building codes attempted to keep pace with the construction boom and ensure safety. In 1914, with the focus still on fire hazards, Los Angeles voters approved a law requiring the replacement of wood-framed schools with masonry structures. Of course, the vulnerability

of masonry construction to earthquakes was not yet fully known. Therefore, most schools constructed in Los Angeles post-1914 utilized masonry construction, with brick construction used for a majority of the new schools.

In 1925, in response to the devastating Santa Barbara earthquake, the state adopted new building codes aimed at strengthening seismic safety. In 1927, the City of Los Angeles followed suit and revised its local building ordinance and added supplemental steps and requirements to ensure the structural stability of schools. Improvements included fire-resistant corridors, stairs, and exterior walls and reinforced concrete beams within floors and roofs. When the March 1933 Long Beach earthquake hit, schools built after 1927, under the new requirements, proved more resilient than those constructed before the laws took effect.

As before, the new schools of the district generated much civic pride, with newspapers of the day praising new campuses for their beauty and modern facilities. As *Los Angeles Times* reporter Neeta Marquis wrote in 1928, "Let us of Los Angeles who often grow depressed at times over the inadequacies of our city administration in other departments take heart of grace from the efficiency and stability of the factory which is turned out our citizens of tomorrow, our public schools."⁵³

The Roaring '20s and Enrollment Expansion

The basic shift in philosophy coincided with the continuing, remarkable expansion of Los Angeles, not only in terms of population growth but also geographical range. In anticipation of the ample water supply promised by the Los Angeles Aqueduct, constructed between 1908 and 1913, Los Angeles experienced rapid population and land growth through annexation of neighboring cities. As of 1910, the population of the City of Los Angeles stood at 319,000, and the area served by the Los Angeles City School District spanned more than 85 square miles, with more than 46,500 students enrolled. Within just 6 years, by 1916, enrollment in the Los Angeles City School District had nearly doubled to more than 78,000 students, and the expanse of the district quadrupled, growing from 85 square miles



Figures 65 and 66. *Vernon City Elementary School (1929), with Spanish Colonial Revival arcades moving school corridors outside.* Source: LAUSD *Vernon City Elementary School Pre-Planning Survey, 2011.*



Figure 67. One of Los Angeles's earliest middle schools, Lafayette Junior High School (1911), in 1925 photo. Located in southern downtown Los Angeles, the school closed in 1955 due to decreasing enrollment figures. Source: LAPL Photo Collection.



Figure 68. Winter 1933 class at Lafayette Junior High School. Source: LAPL Photo Collection.

to approximately 400.⁵⁴ Some areas annexed by the Los Angeles City School District already had schools to serve their own needs; more often, though, new schools were required. Between 1911 and 1915, a total of 22 schools had been annexed to the district, with an additional 31 elementary and high school buildings under construction.⁵⁵

During the boom of the 1920s, Los Angeles film and aeronautics industries remained strong draws for new settlers. In one decade, between 1920 and 1930, Los Angeles's population doubled, climbing to 1.2 million, making the city the fifth largest in the United States. At a high point during the 1920s, new residential subdivisions were being established at the rate of 40 per week in the City of Los Angeles. By 1930, Los Angeles spanned 441 square miles.⁵⁶ This represented a twelvefold expansion in 30 years.

Concurrently, Los Angeles's public school enrollment grew nineteenfold during the 1920s. The construction boom in schools helped accommodate the enrollment increase, but the need for new schools and classrooms remained a constant issue. By 1933, the Los Angeles City School District included a student population of 300,000, attending 384 schools—293 of them elementary schools; 22 junior high schools; 32 senior high schools; and continuation, trade, and junior college facilities rounding out the remainder.⁵⁷

Curriculum Shifts

The Los Angeles City school districts followed the curriculum modernization and reform trends seen in the rest of the United States. By the early 1910s, the city's public schools had made a decisive move "away from the uniformity that was so much prized at the turn of the century. Diversification now marked the schools and the officials made that fact known."⁵⁸

The heart of reform was designing curricula that flexed according to the students—their abilities, needs, psychological well-being, and their inherent curiosity and love of learning. For example, the new course of study in elementary schools was based on the idea that



Figure 69. Central Junior High School, as of circa 1925. Located in downtown Los Angeles on Hill Street, this school closed in 1946. Source: LAPL Photo Collection.

“individuals should progress in accordance with their individual capacities” and was organized in “large units with the activity approach emphasized throughout.”⁵⁹

In 1911, Los Angeles established a new intermediate level for schools, launching the third junior high school system in the United States, behind Columbus, Ohio, and Berkeley, California. Vocational schools and junior colleges (as an extension of the high school curriculum) were also greatly expanded in this period.

Social Responsiveness and a Broadened Mission for Public Schools

In Los Angeles and elsewhere, this era saw a broadened role for public schools as community centers. Public education became more inclusive and socially responsive to underserved populations. During the first quarter of the twentieth century, a range of special-needs schools were established, including special facilities for the deaf, blind, physically disabled, or cognitively impaired; special facilities were also provided for children suffering from tuberculosis. National trends and legislation prompted the establishment of evening high schools, for adults seeking to broaden or finish their education; part-time high schools, to help meet the new requirement for working children between the ages of 14 and 18 to attend school part time; and vocational schools. Cafeterias and nurseries became part of schools—the first for nourishment, and the second to ensure that older children tasked with caring for younger siblings could attend school while their parents worked. Schools also offered assimilation and language programs for the city’s significant immigrant population.

The first evening high school opened in 1907 in Los Angeles at the Polytechnic High School. Offered initially as a means for working adults to obtain a high school education or diploma, night schools blossomed in popularity; and by the post–World War I period, they served as informal community centers, with offerings expanding to include a variety of course offerings.

Legislative Reform and Public Education

The two other major changes to Los Angeles’s public schools were prompted by legislation at the state and federal level. Beginning in the early 1910s, legislation began emerging throughout the United States making part-time school compulsory for teenagers. The first such law was introduced in Wisconsin in 1911, with California following in 1919.

In 1913, a presidential commission was formed to assess the need for vocational training throughout the United States. One of the results of this commission was the 1917 Smith-Hughes Act, which, among other things, initiated new compulsory education requirements for school-aged children and provided federal funding for vocational schools and coursework, in particular in agriculture. In Los Angeles, specialized vocational training had been available as early as 1905, with Polytechnic High School. Throughout the early part of the twentieth century, technical schools offered specialized coursework, such as commercial courses at Polytechnic, industrial and household arts at the Manual Arts High Schools, and agriculture at Gardena High School.⁶⁰

The state law that emerged from the Smith-Hughes Act required that all working children between the ages of 14 and 18 attend a minimum of 144 hours of class instruction per year.⁶¹ In 1920, in response, Los Angeles public schools launched a program in part-time education, making use of “a large number of rented locations.”⁶² In 1926, Los Angeles’s largest part-time high school—aptly named the Part-Time High School—became Metropolitan High School (located at 234 W. Venice Boulevard in Los Angeles, the campus became the Los Angeles Metropolitan Junior College in 1950).



Figure 70. Frank Wiggins Trade School, circa 1925. Located in downtown Los Angeles on Olive Street, this school closed in 1951. Source: USC Digital Archive.

The Frank Wiggins Trade School, the first of its kind in the district, was established in 1925 on Grand Avenue in downtown Los Angeles (though it was relocated in 1927 to South Olive Street). Named for the longtime secretary of the Los Angeles Chamber of Commerce, the Frank Wiggins Trade School provided a course of adult education in specific vocations and placement of students in the

occupations for which they had been trained. Among its other curricula, the school offered the first professional culinary training program in the nation, an offshoot of the home economics program. The trade school evolved into the Los Angeles Trade-Technical College, still operational today as part of the nine campus, 882-square-mile Los Angeles Community College District.

The establishment of the District's first junior college in 1929 was represented as the crowning accomplishment of the administration then in office. The school district purchased the Vermont Avenue campus of the former State Normal School when it relocated to Westwood and established the Los Angeles Junior College, which was an immediate success. The curriculum constituted the freshman and sophomore years of college and included semiprofessional courses for students interested in a 2-year education, as well as certificate work for those planning to qualify for subsequent admission to a university.

Together with trade schools, junior colleges filled an important social need by supplying focused adult education and career training during the Depression years, and enrollment steadily increased as the war approached.

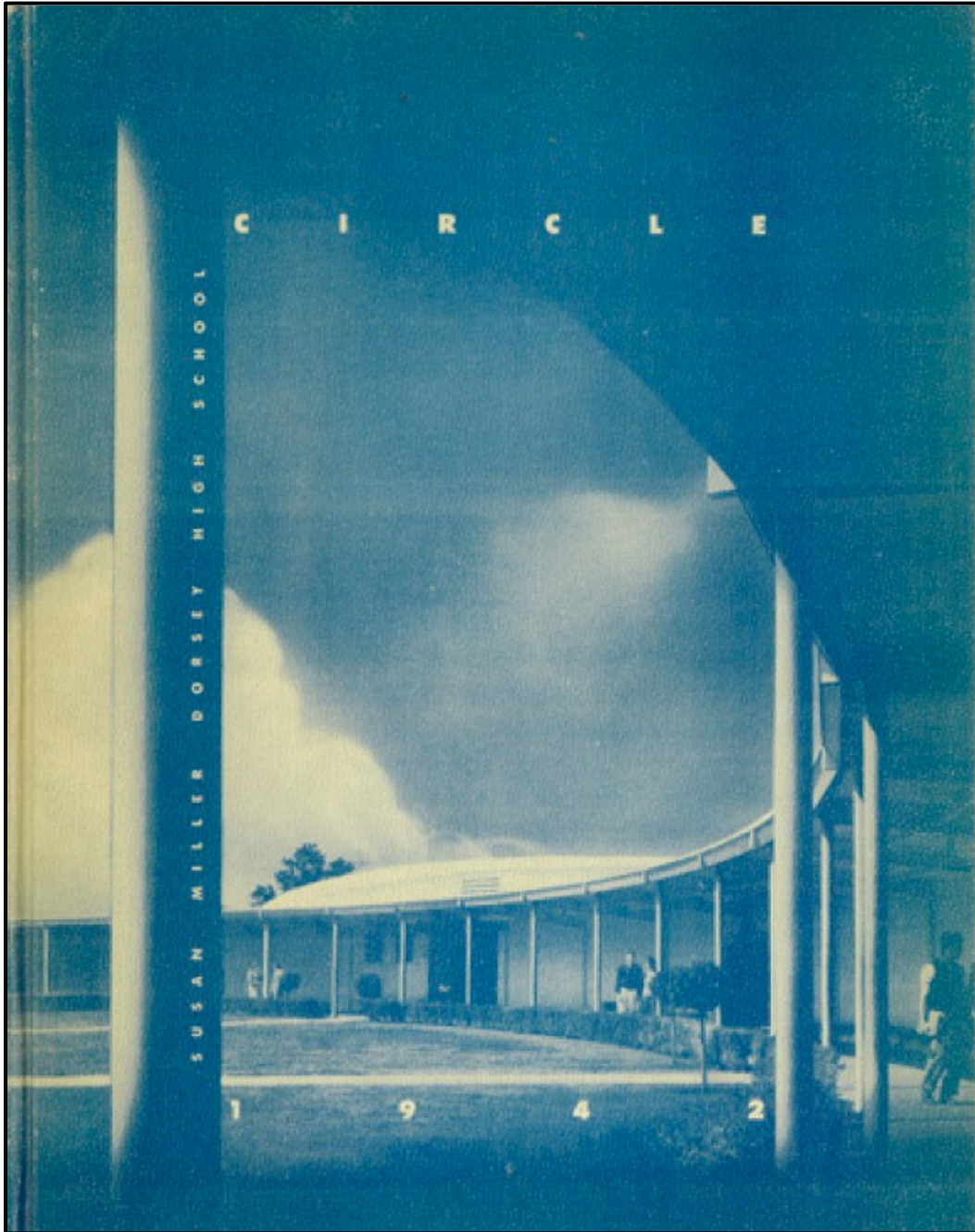


Figure 71. Susan Miller Dorsey High School (1937), extant in mid-city Los Angeles near Baldwin Hills. The school's yearbook, "Circle," took its name from the innovative site plan and arc of outdoor corridors. Source: Circle, Dorsey High School Yearbook, 1942.

C. ERA OF REFORM: GREAT DEPRESSION, EARTHQUAKE, AND EARLY EXPERIMENTS IN THE FUNCTIONALIST SCHOOL, 1933 TO 1945

“The old school was primarily designed to impress the adult and the new school primarily designed to impress and provide comfort to the pupil.”
 —William Wayne Caudill, *Better Design for Schools*, 1954

NATIONAL CONTEXT | DEVELOPMENTS

In the simple epigraph above, architect William Wayne Caudill (1914–1983) captured the evolving ideas about twentieth-century school design. Traditional schools had often been built as self-contained, monumental blocks, in Classical Revival and Beaux Arts–inspired styles designed to impart prestige. In the first quarter of the twentieth century, reformers started moving away from the multistory, block-style school in favor of a more flexible, program-differentiated school plant.

The reform movement was not concerned with bringing modernist style, per se, to school plant design. The real push was for a more “functional” school. If the function of a school was educating children—and if educational methods and curricula had improved and evolved—then school plant design had to evolve as well. Building plans, campuses, and interiors were increasingly designed to be more child-centered and flexible: “The broadening curriculum, the more active methods of learning, and emphasis upon doing and working with things rather than merely studying books—all have focused attention upon the importance of the physical environment.”⁶³



Figure 72. Indoor-outdoor classroom, Corona Avenue Elementary School, Richard Neutra, 1935. Extant in Bell, California, south of Los Angeles. Source: USC Digital Archive.

Continuing the trend begun in the 1920s, integration of classrooms with the outdoors became one key factor for school plant improvement. The early-twentieth-century recognition of the importance of children’s playgrounds and an increasing emphasis on the benefits of outdoor living fueled this movement. Wrote Elizabeth Mock in 1943, “If we grant the importance of encouraging the child’s awareness of nature along with his sense of freedom, we can then understand the present tendency towards ground-level classrooms, each with its own door to the outside and its adjacent outdoor class area.”⁶⁴

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Numerous proposals were forwarded for including more indoor-outdoor connections for classrooms and campuses, whether through the use of patios, courtyards, or playing fields. So central was the concern for outdoor classrooms and recreation that, by the 1930s, the

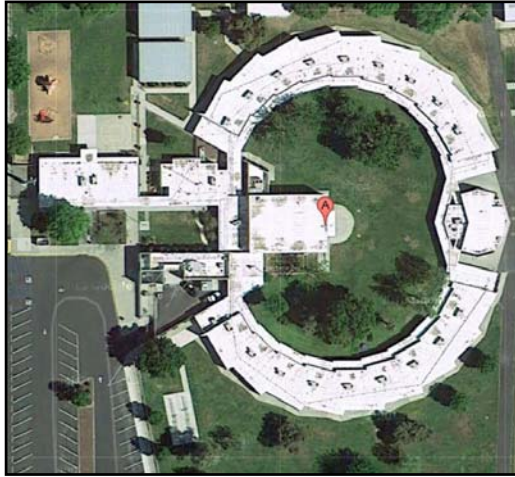


Figure 73. Richard J. Neutra School, Lemoore, California (Central Valley), 1960, based on Neutra's 1928 design. Source: Google Maps, 2013.

trend became known as the "open-air school" movement, with its emphasis on "air, light, outdoor learning, and easy circulation through the school buildings."⁶⁵ Site planning was also carried out with an eye toward environmental factors, such as sun patterns, interior cross-lighting, and ventilation. With its mild climate and room to grow, Southern California pioneered some of the nation's best and earliest examples of open-air schools in the 1930s.⁶⁶

As in the 1920s, schools continued to play an increasingly important role as gathering places for the community. This was reflected in campus site planning, with auditoriums sited for public accessibility and separate entrances allowing for school-time access by the public that would not interrupt studies. Architects, designers, and school staff actively sought ways to adapt schools to this expanded function within the community, and innovations in this regard were amply noted in the education- and architecture-related trade magazines.

In the 1930s, an expanding field of research in the building sciences aided those tasked with designing comfortable classrooms for children. Controlling, designing for, and regulating the environmental conditions of classrooms became the topic of numerous studies, including in the science of proper lighting, ventilation, and safety systems (the field of acoustics came into play in the postwar period).

A new focus on defining and better understanding building typologies and their specific needs also grew out of this era, with the idea of creating better environments and lowering costs through standardization.⁶⁷

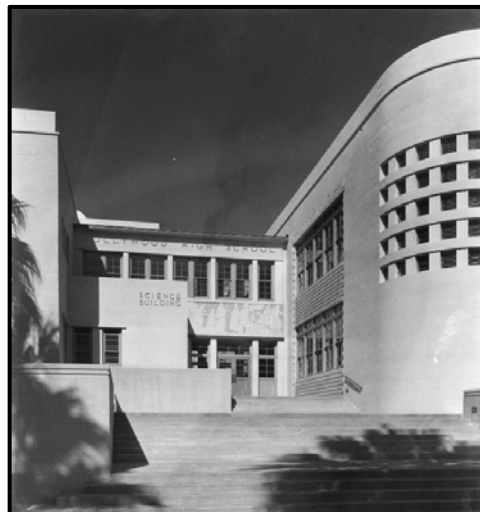


Figure 74. Hollywood High School, Marsh, Smith & Powell (1935), in 1939 photo. The school is still located in Hollywood on Sunset Boulevard and Highland Avenues. Source: LAPL Photo Collection.



Figure 75. Thomas Jefferson High School, Stiles O. Clements, 1936 image. Extant in south Los Angeles, on East 41st Street. Source: LAPL Photo Collection.

By the mid-1930s, the advent of the New Deal and the PWA (later the Works Progress Administration) sponsored a generation of new building. Throughout the United States, PWA funding helped buoy school construction during the Great Depression, with approximately 70 percent of all new school construction in the 1930s funded through the agency.⁶⁸ In Southern California, following the 1933 Long Beach earthquake and the urgent need for new facilities (described in detail below), PWA funding for school construction and reconstruction totaled over \$13 million, a sum accounting for 62 percent of the spending overall.⁶⁹

Throughout the United States, PWA buildings, including dozens of schools, became known for their distinctive Streamline Moderne styling. In Southern California, Streamline Moderne ideas were also applied to historic-eclectic styles that had been popular in the 1920s, creating new stylistic hybrids.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

The Functionalist, Modern Movement in School Design

By the 1930s, progressive educational reform had brought major changes: teaching methods and materials were becoming more hands-on, practical, and engaged; and the environments for learning were themselves transformed to facilitate the new ideas. As architectural historian Amy Ogata wrote, “Historians of education are still divided on the real impact of progressivism on American education, but its effect on the architectural discourse was profound and enduring.”⁷⁰

Compared with school buildings and campuses just a decade before, schools were increasingly nonmonumental in their scale, site plan, and design. One-story buildings were increasingly used for all grade levels, in particular for elementary schools. In a companion piece to the Museum of Modern Art exhibit *Modern Architecture for the Modern School*, Elizabeth Mock wrote in 1943 that “if the architect is guided primarily by his desire to create a building for children, the result will almost certainly be a one-story school, built as close to the ground as possible. This is the easiest way to open each room to the outside, and the easiest way to attain suitable scale.”⁷¹

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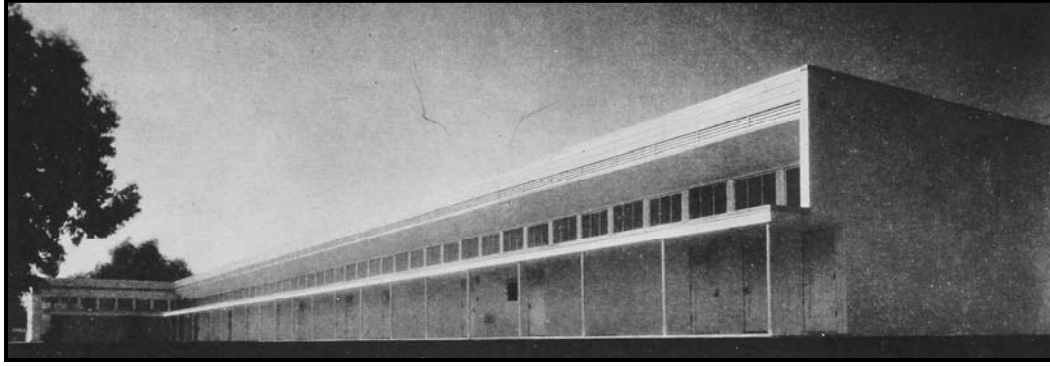


Figure 76. Richard Neutra's Corona Avenue Elementary School addition, 1934/1935. Extant in Bell, California, southeast of downtown Los Angeles. Source: *Built in USA*, 1944.

The emergence of modern architectural design provided a quantum leap forward for this new wave of reform. Modernism embraced honesty in structure and materials and a functional design driven not by a given style or ornamental program but by the building's purpose. By the postwar period, this debate had been settled, and modernism did become the preferred (though not exclusive) idiom for American school plants. But in the 1930s, this movement, which brought together ideas about educational reform, modern architecture, and research in building sciences, was just taking root.

William Edmond Lescaze

One architect who actively advocated for a more modern, functional approach to school design in the 1930s was William Edmond Lescaze (1896–1969). Between 1929 and 1932, Lescaze, along with partner George Howe (1886–1955), designed one of the era's most significant modern buildings in the United States, the Philadelphia Savings Fund Society building, considered to be the country's first example of a skyscraper in the International Style.⁷² In the mid-1930s, Lescaze published articles in architectural magazines as well as specialized education-related trade journals to argue for more functionalist, modern schools:

If buildings have an influence on us, should we not insist that our school buildings work well, and be good looking? Of course we should. But do they work well, and are they good looking? Alas, no! Most of the schools are massive, uninspiring, uninviting buildings. Pediments of limestone, a few columns and, when we can afford them, a tower or a cupola! Just as you may order lettuce salad with French dressing or mayonnaise, you may have a school building Gothic or Colonial!

There can be no school planning worthy of the name unless the functions of the building are clearly understood, clearly expressed: and that understanding, expressing clearly the functions of a building, has been achieved by all good architecture in the past, and is what modern architecture is today attempting to achieve.⁷³



Figure 77. Corona Avenue Elementary School, 1935. Source: LAPL Photo Collection.



Figure 78. Same outdoor classrooms, circa 1950. Source: Getty Research Institute, Shulman Archives.

The key to this, Lescaze argued, was moving beyond historic eclecticism:

Modern functions cannot be fitted into old forms, nor can twentieth-century “uses” be combined with twelfth-century “beauties”! The buildings of the past are beautiful not because they are a “style.” They are beautiful because the men responsible for them devoted all their skill, their taste, their understanding, to fulfilling the purposes, the functions, of these buildings. In other words, these buildings grew out of the life of their time, to meet the requirements of their time. And that is exactly what our buildings must do.⁷⁴

Richard Neutra

As of 1936, Lescaze wrote, there was only one truly modern school building in the United States: Richard Neutra’s 1934/1935 Corona Bell Elementary School in Los Angeles. Like Lescaze, Neutra (1892–1970) was European-born and educated and had come to the United States in the 1920s. Neutra had long been working on the problem of the modern school plant, with a philosophy steeped in Progressive-era notions of deinstitutionalizing the classroom. As Esther McCoy wrote, Neutra’s ideas about school design

grew out of the conviction that tensions begin to accumulate in a child when he is taken from the home and living room into a school and classroom, to be moored to the floor, and forced to look up at a teacher sitting above him on a platform. ... Neutra saw great advantages in classrooms, especially for elementary grades, which resembled living rooms filled with group action—but a living room such as only a handful of architects had conceived at that time, one connected to a patio by a movable glass front.⁷⁵

In 1928, Neutra had proposed a ring-plan school consisting of an outdoor, sheltered corridor providing circulation and access to finger-like classroom wings separated by landscaped patios and gardens. The elliptical plan was inventive and practical, as it made use of a compact lot and shortened distances between classrooms. (The plan was radical for 1928 but perfectly in the spirit of the times by 1960, when it was constructed as the Richard J. Neutra School by Neutra and his partner Robert Alexander in Lemoore, California.)

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Figure 79. Emerson Junior High (now Middle) School, Richard Neutra, 1937, Los Angeles. This school is extant and located on Selby Avenue near Santa Monica Boulevard in west Los Angeles. Source: Julius Shulman Archives, J. Paul Getty Trust, Getty Research Institute.



Figure 80. Seamless connections between classrooms and outside patios. Emerson Middle School, 1937. Source: Julius Shulman Archives, J. Paul Getty Trust, Getty Research Institute.



Figure 81. Richard Neutra's Emerson Middle School (1937), extant, west Los Angeles. Source: LAPL Photo Collection.

In 1934, Neutra was given the opportunity to translate theory into practice. In the wake of the Long Beach earthquake, the architect was chosen to design an addition for the Corona Avenue Elementary School. His simple, L-shaped plan quickly became a prototype for Californian (and American) schools and "a classic in its field."⁷⁶

The addition consists of a linear, one-story wing of single classrooms. On one side, covered passageways provide circulation corridors and, as Esther McCoy noted, evoke the arcades of Spanish Colonial architecture. On the west elevation, sliding glass walls provide direct access to outdoor play areas and classrooms. Landscaping creates divisions between classes, and 6-foot roof eaves provide shelter and transitional space. With this, Neutra perfectly melded outside and in and presaged the ways in which postwar architects would create seamless indoor-outdoor spaces.

The construction system of earthquake-friendly wood framing with generous expanses of single-pane windows adds to the sense of weightlessness and integration with the site. With a band of high clerestories on one side and full-length windows on the other, Neutra controlled classroom illumination and provided cross-ventilation. As McCoy wrote, the Corona School "banished the 'listening classroom,' which had its effect upon education methods, for the teacher became a part of the group as soon as students were no longer restricted to fixed seats."⁷⁷

As the decade progressed, the ideas of architects like Lescaze and Neutra started to take hold. In 1937, Neutra designed a second pioneering example of a functionalist school plant, with the steel-framed Ralph Waldo Emerson Junior High School in Los Angeles. In this school, the architect continued the same themes of indoor-outdoor integration on a more constricted urban site. Emerson Junior High's "basic plan organization and massing are clearly expressive of function, with classrooms efficiently organized along double-loaded hallways in freely arranged wings. ... The restrictions of the site are compensated by Neutra's inventive plan, making use of outdoor spaces, like a rooftop, for outdoor access."⁷⁸ As with the Corona Avenue project, Neutra created seamless connections between classrooms and patios with movable walls and landscaping.

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Franklin & Kump and Finger-Plan Schools

Beyond Los Angeles in this era, other prototypes that became influential in the postwar period were under construction. One of the most important of these was Franklin & Kump and Associates' Acalanes Union High School in Lafayette, California, east of San Francisco. Franklin & Kump's rational "finger-plan" school perfectly captured the ideas of the day and became the most common school plan typology in the United States in the 1940s.

Constructed in 1939/1940, Acalanes Union High School was designed for a large rural site, with one-story wings extending outward in finger-like wings. Classrooms consist of open lofts with adjustable plywood partitions dividing the interiors. The pavilion-like site plan, low scale, and finger-like classrooms provide ample opportunities for outdoor access.

As with Neutra's early experiments, Acalanes Union High School moved interior hallways outside, with sheltered outdoor corridors throughout the campus. A recessed terrace off the dining room provided outdoor seating areas for lunch, and lockers were installed on exterior walls. The finger-like plan also allowed for cross-lighting and ventilation for each classroom. To the north, students enjoyed outdoor views through full-length windows. To the south, bands of high clerestory lights provided balanced illumination without glare.

Modular design and construction allowed for easy expansion of the school as enrollment increased. The campus included a variety of facilities, including gymnasium and playing fields, workshops, dining room, a network of classroom wings, and a parking area, all

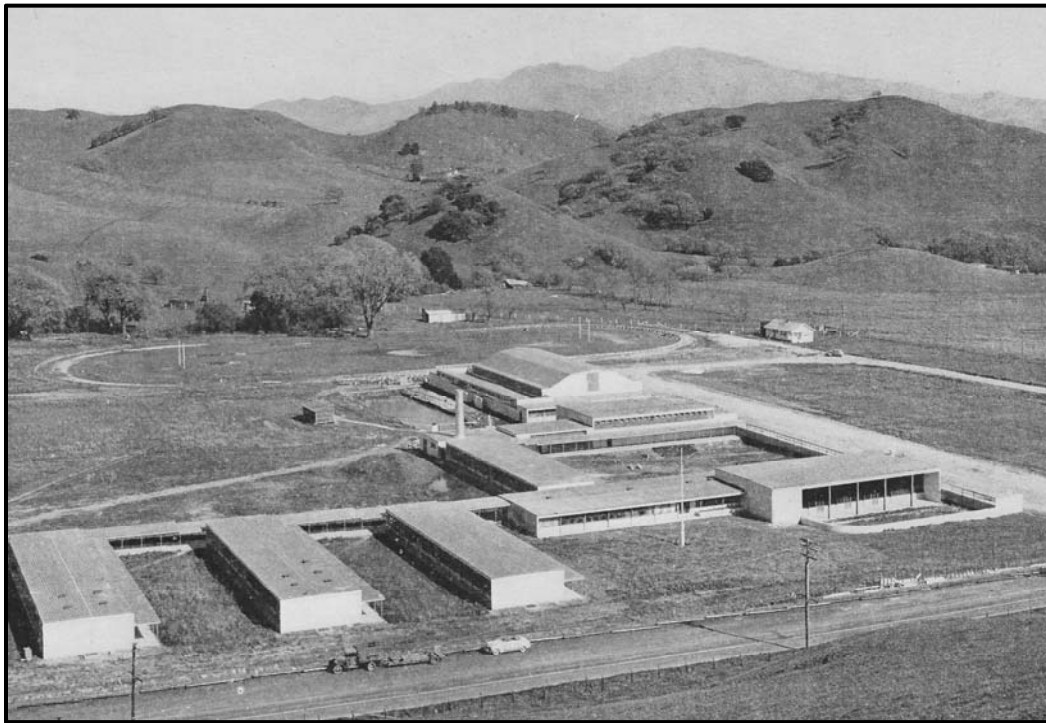


Figure 82. Acalanes Union High School, Franklin & Kump and Associates. Source: *Built in USA*, 1944.

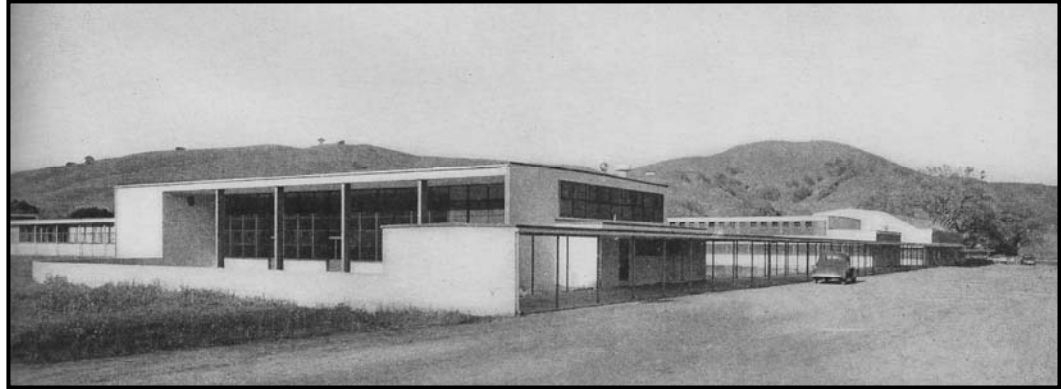


Figure 83. Franklin & Kump and Associates, Acalanes Union High School, Lafayette, California, 1939/1940. Source: *Built in USA*, 1944.

configured in a unified site plan. In keeping with 1930s planning trends, pedestrians and automobiles were separated through the use of a 500-foot-long canopied passageway, which connects the street and drop-off areas with the school entrance.

Although Franklin & Kump's school was published nationally on multiple occasions prior to 1945, it was in the postwar era that the school typology and plan took off. Pre-1945, Elizabeth Mock included the school in *Built in USA*, the Museum of Modern Art's 1944 exhibit and publication showcasing American regional modernism. Acalanes Union High School was one of only three other schools constructed between 1932 and 1944 included in the volume (Neutra's Corona Avenue project was among them).

Also included in the Museum of Modern Art's *Built in USA* was Eliel and Eero Saarinen's 1939/1940 Crow Island Elementary School in Winnetka, Illinois. Crow Island was another early experiment in how to interpret new ideas about education into function-driven, modern schools. The Saarinens, along with Perkins, Wheeler, and Will, proposed a domestic-scaled modular school, with an innovative pin-wheel plan, finger-like classrooms, plentiful opportunities for outdoor play, cross-lighting, and ventilation. This plan also was widely published and imitated in the postwar period.

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Figure 84. Another highly influential pre-1945 modern, functional school design: Eliel and Eero Saarinen's Crow Island Elementary School in Winnetka, Illinois, 1939/1940. Source: *Built in USA*, 1944.

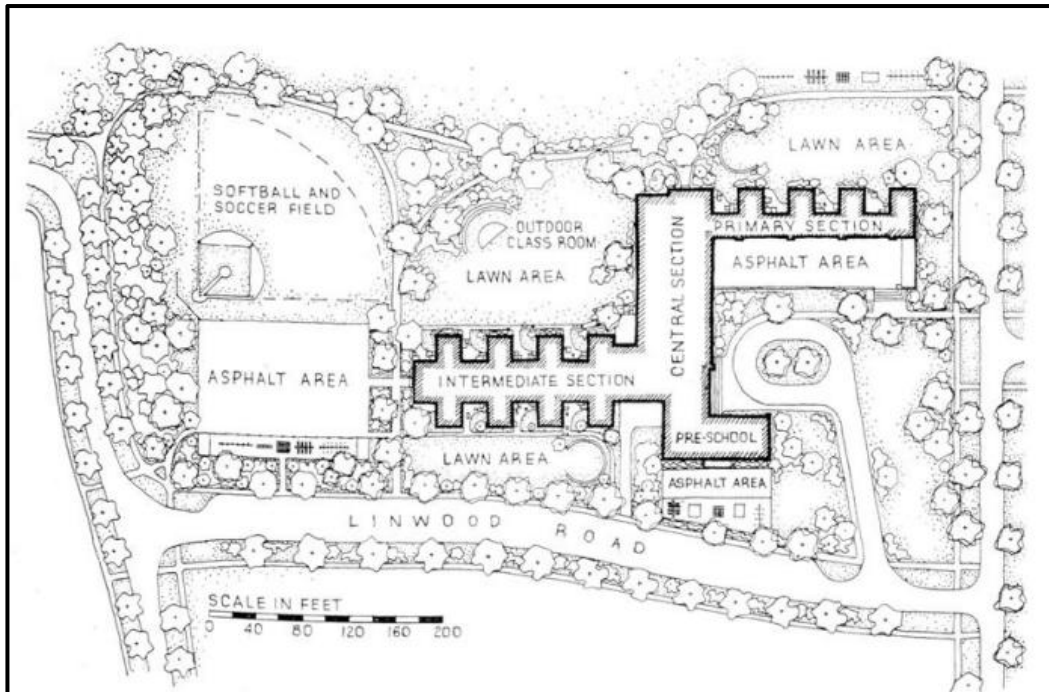


Figure 85. Plan, Eliel and Eero Saarinen's Crow Island Elementary School. Source: *Built in USA*, 1944.



Figures 86 and 87. Hollywood High School, Science Building, Marsh, Smith & Powell (1935), in 1939 (left) and 2002 (right). Extant in Hollywood, on Sunset Boulevard and Highland Avenue. Source: LAPL Photo Collection and LAUSD.

Post–Long Beach Earthquake: The Era of the PWA Moderne | Streamline Moderne

Not all examples of the functional school plant were modernist in the sense of being antihistoricist. Most 1930s schools continued to display stylistic programs and ornamentation, though tastes had shifted to PWA Moderne, Streamline Moderne, Art Deco, and streamlined versions of historic-eclectic styles, such as the Spanish Colonial Revival. School plants embracing the new ideas might express their function clearly, with a differentiated, unified campus plan, but they might also display a specific style. These examples were widely praised and published as representative of the 1930's movement toward more functional school plants.

Several of the most significant Southern Californian firms to point the way forward in this regard on a national scale were James Edward and David Clark Allison; Sumner Spaulding and John Rex; Donald and John Parkinson; and Norman Marsh, David Smith and Herbert James Powell (later Marsh, Smith and Morgridge). During this era, these firms, among others, participated actively in school construction, designing more functional, child-centered, open-air schools that were also historicist to varying degrees.

In the postwar period, Spaulding & Rex, Marsh, Smith & Powell, and the successor firm to the Parkinsons' partnership continued to play an active role in school plant design, by then in stylistic idioms that forwarded the cause of modernism.

Marsh, Smith and Powell

During the 1930s and early 1940s, Marsh, Smith and Powell designed numerous school commissions that garnered national attention. Their work brought together the latest ideas in functional site plans and child-centered buildings and classrooms, with the all-important indoor-outdoor spaces and connections. The same issue of *Architectural Record* featuring Lescaze's 1936 call to American architects used a Marsh, Smith and Powell school, Roosevelt Elementary School in Santa Monica, to illustrate the new trends.

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Figure 88. Post-Long Beach earthquake reconstruction at Manual Arts High School, Parkinson & Parkinson, circa 1935. Extant in mid-city Los Angeles, on South Vermont Avenue and West Martin Luther King Jr. Boulevard. Source: LAPL Photo Collection.



Figure 89. Manual Arts High School, Parkinson & Parkinson, circa 1935. Source: LAUSD.

The firm, consisting of Norman Foote Marsh, David D. Smith, and Herbert James Powell, was also featured in a 1938 issue of *Architect and Engineer* in order to illustrate the “progress” made in American school design during the decade: “The architects of California can well take pride in that which has been accomplished during the last twenty-five years. Their school buildings are beautiful—they are practical, they are utilitarian, and they are economical. To the credit of the architectural profession, the architecture of educational buildings has kept abreast with the progress of education.”⁷⁹

Los Angeles City School District’s The Progressive Elementary School: A Handbook

Southern California’s version of the open-air, functional school was also brought to a national audience in 1938’s *The Progressive Elementary School: A Handbook for Principals, Teachers and Parents*. The guidebook was written by Robert Hill Lane, the assistant superintendent of schools in Los Angeles and vice president of the Progressive Education Association. Published by Houghton Mifflin Company and prepared in conjunction with the Los Angeles City School District and State Department of Education, Lane’s handbook explored the region’s array of modern, functional, open-air school plants.

The handbook drew on the wealth of post-Long Beach earthquake examples with numerous illustrations and plates. It also described the philosophical underpinnings of the movement: the desire to create more child-friendly, inviting schools and classrooms. The handbook was one of many primers and guides on modern schools, but *The Progressive Elementary School* brought Los Angeles school plant design to a national audience.

The trend continued away from the institutional, monumental school block and toward more approachable, flexible facilities and plants. A few years before the end of World War II, the movement had footholds throughout the United States, just in time to decisively shape the character of schools designed during the postwar building boom. As one commentator noted in 1942,

Here and there throughout the country there appear signs of another basic change in school architecture. It is primarily a movement away from the monumentalism of the past four decades. People are not using their school buildings to sell their communities. The school building is being developed as a more intimate and better integrated element of the community, a place closely association with child and adult living.⁸⁰

The era of reform in progressive educational methods and school plants had thus come of age by the end of the Great Depression and just prior to 1945. Many prototypes and proposals emerged throughout the 1930s, with many examples from Southern California. By the time the war ended and construction began in earnest, these pre-1945 examples suggested the direction and the future shape of the modern, functional American school plant.

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Figure 90. Franklin Junior High School, Long Beach, March 1933. Source: National Information Service for Earthquake Engineering, University of California, Berkeley.

LOS ANGELES CITY SCHOOL DISTRICTS | CONTEXT AND DEVELOPMENTS

Long Beach Earthquake and the Field Act

The March 1933 Long Beach earthquake was one of the decade’s most significant events for the region’s built environment. The 6.5-magnitude earthquake caused significant damage and losses; in Long Beach, more than two-thirds of the city’s schools were in need of demolition and reconstruction.⁸¹ In Los Angeles, 40 unreinforced masonry school buildings were destroyed.⁸² In addition, after a survey of Los Angeles schools within 10 days of the earthquake, all damaged or “precariously placed” chimneys, parapets, fire walls, and ornamentation were removed. Fortunately, the earthquake took place when school was not in session.

The Long Beach earthquake posed a disaster for the district but also an opportunity for the region’s architects. While change and reform in school plant design were already underway, the Long Beach earthquake and the mini-school construction boom it triggered provided ample opportunities to test new ideas about school architecture and campus planning in Southern California.

These changes also affected the state overall. One month following the earthquake, through the efforts of California Assembly member Charles Field, the State of California adopted the Field Act. Similar legislation had already been passed following the 1925 earthquake in the City of Santa Barbara. With this, the state had adopted building codes tailored to upgrading seismic stability. In 1927, the City of Los Angeles revised its own City Building Ordinance and adopted additional requirements for schoolhouse construction. All new construction after 1927 adopted the updated building codes, which included requirements for fire-resistant corridors, stairs, and exterior walls and for reinforced concrete beams within floors and roofs. By the time the 1933 earthquake struck, these post-1927 schools indeed proved more resilient.



Figure 91. October 1934, Lincoln High Tent Village, awaiting reconstruction of classrooms. Source: LAPL Photo Collection.

Through the Field Act, the lessons learned in the Long Beach earthquake were used to further strengthen school building codes. The law directed the State Division of Architecture to design and enforce regulations to ensure earthquake-resistant buildings. State oversight and implementation of building codes/construction inspections were also established. Additionally, the City of Los Angeles Board of Education again revisited its own building codes. Post-1933 elementary school buildings were not to exceed one story in height, and high school buildings were limited to two stories (this would change over time, given the tremendous demand for classroom space in the postwar period and relative scarcity and expense of large lots). New buildings incorporated the latest construction techniques and prominently showcased the use of modern materials such as steel and reinforced concrete. On sites where soil load-bearing properties were found to be too low for steel and concrete, demolished schools were replaced with relatively earthquake-resistant wood-frame buildings. In cases where damaged buildings were rehabilitated, methods included installing reinforcing steel columns, beams, and diagonal bracing, exterior refacing with reinforced gunite and installation of reinforced concrete walls.

Some of the requirements of the Field Act were well aligned with the goals of progressive architects for more child-scaled, one-story schools. In a 1942 article on modern trends in school architecture, one commentator observed the overlapping influences: “Much emphasis has been given to the open plan in California. It is possible that this development has not grown so much from changing educational practice as it has from structural needs.”⁸³ The author’s insight had come from an *Architectural Record* article on a new

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“open plan” school in El Monte, California. As *Architectural Record* pointed out, however, “Two factors determined the choice of open plan, with departments housed in separate structures: the local soil-bearing value was very low; the buildings had to be designed to resist earthquake stresses.”⁸⁴ In this way, the new requirements were compatible with the trend of the times toward one-story, open-plan buildings and campuses.

PWA Funding and the Post-Long Beach Earthquake Building Boom for Schools

Following the earthquake, the district planned for phased reconstruction. Available at the time were a total of \$5.3 million in unsold bonds. The PWA purchased the bonds and granted additional matching funds for school reconstruction efforts. A total of \$12.1 million was ultimately raised for the 1933 to 1935 reconstruction program. Approximately \$250,000 funded the construction of temporary classroom housing, in order to minimize the interruption of the school year. An estimated 879 tents and 139 bungalows were initially erected to house the district's enrollment of 300,000 students.

As the school reconstruction program progressed, final steps included reinforcing or replacing 132 unreinforced masonry buildings, strengthening 275 buildings constructed



Figure 92. Children attending school in tents, one year following the Long Beach earthquake, March 1934. Source: LAPL Photo Collection.

since 1927, replacing 51 wood-frame buildings, and eliminating all temporary classroom housing. By 1937, over \$34 million had been spent on post-earthquake school construction, repairs, retrofitting, and rehabilitation. The advent of World War II put substantial investments in schools on hold (after war's end, a \$75 million bond issue kick-started these efforts).

As reconstruction began, Los Angeles City school districts intended to build new seismically sound buildings but also facilities with regionally inflected styles. As the *Los Angeles Times* reported in 1934, new and repaired buildings would be designed for “absolute safety with simplicity and beauty of architecture in harmony with

the atmosphere and traditions of Southern California.”⁸⁵ Many designs were executed by the district's architectural department, under the direction of Alfred Nibecker, but bids were also issued to outside architects, with the intention of awarding the work to a wide field of architects. In addition, new buildings were to be explicitly Southern Californian in design but “free of needless ornamentation.”⁸⁶ This represented a move away from 1920s period-



Figure 93. Reseda Elementary School, 1936. The spare Mission Revival style was in keeping with the post-Long Beach earthquake trend to design in the “traditional Southern Californian” mode. This school is extant and located on Wyandotte Street, Reseda, San Fernando Valley. Source: LAUSD.



Figure 94. South Gate Middle School, 1941. A streamlined mix of Moderne, classical and modern elements. This school is extant and located on Firestone Boulevard, South Gate. Source: LAUSD.

revival styles but also a nod to earthquake safety, since applied ornament often failed and fell to the ground during earthquakes.

Early Experiments with the Finger-Plan School

Other school plants began exploring the new currents in modern, function-driven design. Henry L. Gogerty and C. E. Noerenberg’s Susan Miller Dorsey High School is one such example. While the 1937 design drew inspiration from the PWA Moderne, the classrooms, patio spaces, and radial site plan, with classrooms extending outward like spokes of a wheel, were innovative for the time. With this site plan, the architects created an early form of condensed finger-plan school, which made use of a smaller site but provided the ample air, cross-lighting, and outdoor access possible with one-story finger-like classrooms. A circular outdoor corridor, sheltered beneath wide overhanging eaves with thin post supports, acted as the outdoor hallway for the campus, providing circulation to all classrooms and the main entrance. Adopting the language of functionalist reform, *Southwest Builder and Contractor* praised how the designs “architecturally and structurally express in functional form the outer envelope of a process of public education.”⁸⁷

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Figure 95. Susan Miller Dorsey High School, 1937, Gogerty and Noerenberg, mid-city Los Angeles. Adopting the language of formalist reform, Southwest Builder and Contractor praised how the design expressed "in functional form the outer envelope of a process of public education." Source: LAUSD.

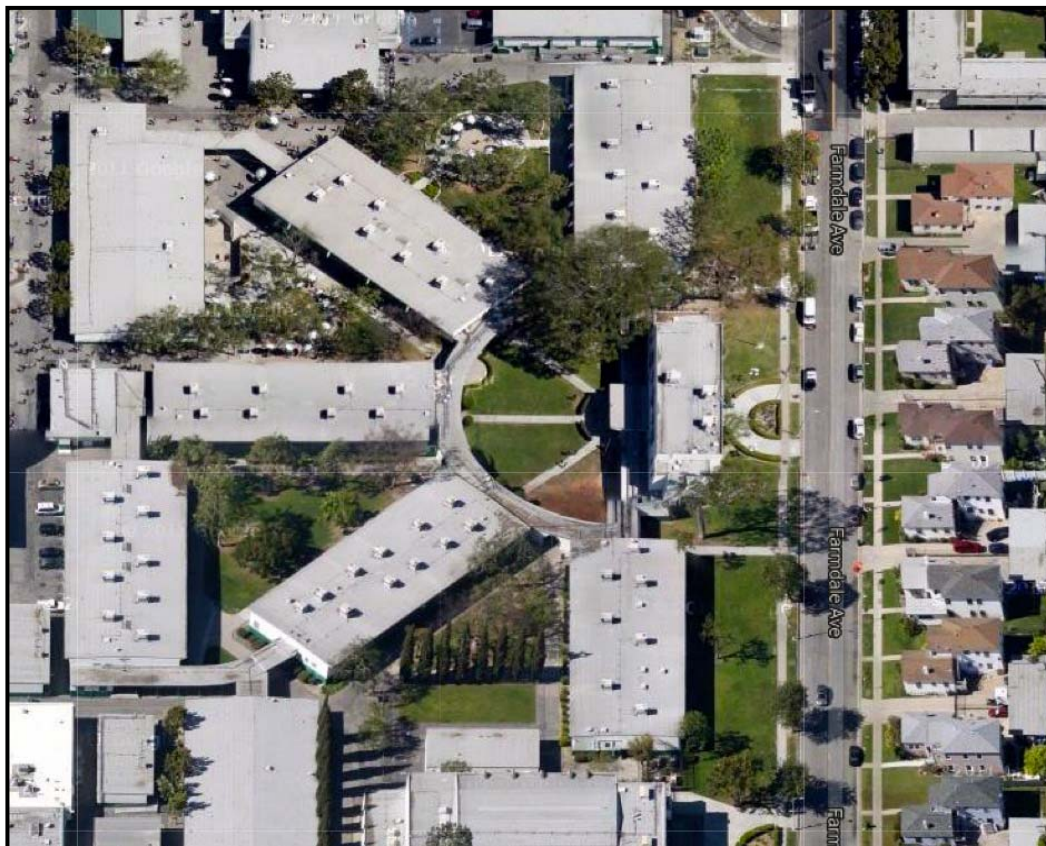


Figure 96. The inventive site plan and semicircle corridors of Dorsey High School. Source: Google Maps, 2013.

Great Depression and World War II: Curriculum Shifts

Just as the Long Beach earthquake struck in 1933, the Great Depression hit its nadir, and within the decade, the advent of World War II brought another round of readjustment. This period brought many changes to the operations and curricula of Los Angeles's public schools. Overall the decade was characterized by experimentation and liberalization of the curricula, in particular for secondary students. The general trend moved away from college preparatory studies and toward a more generalized program. Courses and new areas of emphasis came to reflect the realities of the era and the individual needs of students. A few examples include the expansion of social studies courses to consider contemporary issues and problems and a shift in the sciences toward more applied topics, aimed at the consumer rather than the future researcher.⁸⁸

Through this era, the notion of the public school as an important gathering place for the community took a new turn. Schools became the focal point for a number of initiatives aimed at mitigating the social costs of the Great Depression, and later at supporting the troops during World War II.

By 1935, two federal programs had been launched that ultimately had a significant presence in Los Angeles public schools: the Emergency Education Program and the National Young Administration. Established in 1933, the Emergency Education Program provided federal



Figure 97. Lincoln High School War Bond Drive, 1945. Source: LAPL Photo Collection.

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Figure 98. The women of Frank Wiggins Trade School, 1943. Source: LAPL Photo Collection.

funding to hire unemployed teachers to provide instruction to adults. With this, teachers were again gainfully employed and adults were able to further their training and education. By 1934, Los Angeles public schools provided approximately 200 such classes at 52 different campuses.⁸⁹

In 1935, Congress authorized the National Youth Administration (NYA) program, aimed at providing jobs to teenagers and young adults in order to help them remain in school. The program was open to those aged 16 to 25, who earned no more than \$6 a month. Through the NYA, Los Angeles public schools provided employment to thousands of students. After World War II began, this program continued but shifted its focus to defense-related classes.

Los Angeles Public Schools and World War II

World War II brought another round of adjustments to an educational system already reeling from the Great Depression. The focus on every front of American life for defense-related support brought major shifts. New classes for secondary students included defense-related training and specialized programs in aircraft recognition and aviation mechanics. At the city's vocational schools, applied skills were emphasized. The Frank Wiggins Trade School began teaching auto mechanics to female students, since the "war has taken away many a guy with the monkey wrench, and so today industrial schools are opening new courses for

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women auto mechanics to fill the gap.”⁹⁰ Coursework during the war and immediately after reflected the sociopolitical background of the time, with school districts offering programs in democratic systems of government, the functions of the United Nations, and, for a short time, “moral and spiritual values.”⁹¹ Geography courses took on a more international view, exposing students to a wider array of countries around the world.

The war also impacted activities in the city’s elementary schools, where students were given opportunities to participate in a variety of war-related drives and programs. By 1942, Los Angeles City school districts had created nearly 30 different ways for students to support the war effort. The goal was organizing “every school so that each pupil and teacher had a part in supporting the war program” and inspiring “each child to be so patriotic that he would, of his own volition, carry on a program which would help the war effort.”⁹²



Figure 99. World War II in the Los Angeles public schools: materials drive, Crescent Heights Boulevard Elementary School, circa 1943. Source: LAPL Photo Collection.

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Figure 100. Victory Garden at Manual Arts High School, 1942: "Students in a gardening class at Manual Arts High School learning about vegetables. The students and teachers during the spring term of 1942 had over 500 Victory Gardens to help in the war effort." Source: LAPL Photo Collection.

Two federal programs brought significant changes to the operations and curricula of Los Angeles public schools. The first program was the National Defense Training (NDT) program, which provided \$15 million to American schools, \$400,000 of which went to Los Angeles, for vocational and war-related training programs. Congress authorized the program in 1940 (before the U.S. entry into the war); by September 1940, the Los Angeles Board of Education had launched programs in 13 high schools and 10 evening high schools. Training programs included welding and shipbuilding, mechanics, and aircraft production and maintenance. The program continued to grow, and by 1942, Los Angeles City public schools housed the largest NDT program in the United States.⁹³ In August 1942, the NDT program became the War Production Training program.

In 1942, following the U.S. entry into the war, Congress established the Rural War Production Training program. A branch was established in Los Angeles, with classes targeted to working teenagers and adults attending evening high schools. Referred to as the Out-of-School Youth and Adults program, this initiative was more geared toward food production than industrial production (as with the NDT program). Canneries were established in schools throughout the district as a result of the program, which was renamed "Food Production War Training" in 1943. After the war, though federal funding of the project ended, the Los Angeles Board of Education continued the program, and community canning projects remained in place at a number of area high schools.

D. EDUCATING THE BABY BOOM: POSTWAR EXPANSION & THE FUNCTIONAL, MODERN SCHOOL, 1945 TO 1969

“Above all the school must be childlike.... It must be a place for living, a place for use, good hard use, for it is to be successively the home for a procession of thousands of children through the years. It must be warm, personal and intimate [so] that it shall be to each of these thousands ‘My school.’”

—An American educator, writing to his architect, *Architectural Forum*, 1952⁹⁴

NATIONAL CONTEXT | DEVELOPMENTS

With the end of World War II, the United States turned its attention to the long-awaited postwar—and post–Great Depression—expansion. The magnitude of the construction and population boom that followed, and its effect on the built environment, have been well documented. A wealth of literature has been devoted to the era’s severe housing crisis, for example, and the array of initiatives launched to address it.

Less widely explored in the literature, but equally pressing at the time, was a dire classroom shortage. In 1949–1950, enrollment at U.S. elementary and secondary schools stood at 25.1 million. In one decade, this number expanded by nearly 50 percent to approximately 36 million; by 1971, it reached 46 million.⁹⁵ In 1955, in the midst of this boom, “editors at the *Architectural Forum* worried, ‘every 15 minutes enough babies are born to fill another classroom and we are already 250,000 classrooms behind.’ The rising population of young American children made school building, together with housing, the most widely discussed architectural challenge after World War II.”⁹⁶

Perhaps in no other state of the union was this growth felt more acutely than in California. The booming birth rate was accompanied by a wave of in-migration, as new settlers were drawn by established employment centers in, among other things, the aerospace industry, which had shifted operations to peacetime production. In Southern California, one region with a particularly strong pull in this regard was the San Fernando Valley. The postwar construction boom transformed miles of the San Fernando Valley’s agricultural lands into new residential communities, and the population—and demands on schools—expanded accordingly.

School districts around the country struggled to keep up with unprecedented demand and overcrowded classrooms. Adding to the challenges facing school districts was the need not only for new schools, in particular in emerging suburban communities, but also the need to repair and maintain aging school plants, facilities, and equipment.

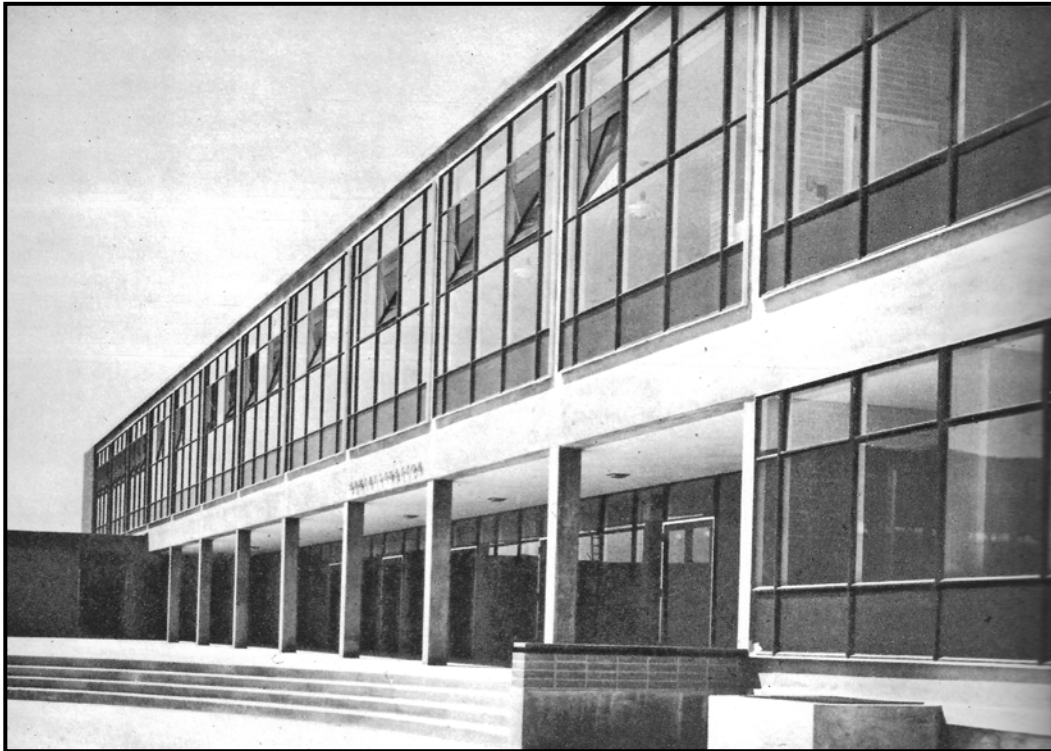


Figure 101. Modernism became the preferred (though not exclusive) style for postwar American schools. Ernst J. Kump, San Jose High School, 1952. Source: *Built in USA*, 1952.



Figure 102. Fern Drive School, 1956, Smith, Powell, & Morgridge, Fullerton. A functionalist postwar school need not also adopt a modern, machine-age aesthetic. The notion of providing a child-friendly environment often translated into incorporating forms and details commonly used in residential architecture. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.



Figure 103. Oso Avenue Elementary School, 1959, Woodland Hills. Most students “come from new tracts still opening in West Valley.” Source: LAPL Photos.



Figure 104. Image for a 1959 article on the “back to back construction” of schools taking place in the San Fernando Valley. Source: LAPL Photos.

1930s Reform Comes of Age: The Modern, Child-Centered School

In this era, the functional, child-centered school plant that emerged in experimental form in the late 1930s became the norm. Newspapers, magazines, and trade journals in a variety of fields—including architecture, engineering, building trades, education, and school design—began forwarding proposals for the ideal modern school. Organizations devoted to the topic also helped standardize and disseminate these ideas; these included the American Institute of Architects Committee on School Buildings, the National Council on Schoolhouse Construction, the American Association of School Administrators, and the Council of Educational Facilities Planners. Journals and guidebooks proliferated with the latest ideas in school plant design, infrastructure and systems, and, above all, how to meet the demand in the most economical fashion possible. Within the architectural profession, a new subgroup of architects who specialized in school design also started to emerge.

Modernism—whether regionally inflected, wood post-and-beam or the machine-age International Style—became the idiom of choice for expressing the new ideas, for its relative economy, informality, accessibility, and, increasingly, “democratic” spirit:

All the architecture shall be a setting for childlife. Everywhere children and what they can do shall be the adornment of the structure. The building itself shall be the place of joy in living. But I must warn you. It must be a place which permits the joy in the small things of life, and in democratic living. These two things we must safeguard in children’s lives.⁹⁷

While some school plants adopted the period styles popular at the time—including a postwar return to American Colonial Revival—the trend by not only modern architects but also educators was to move beyond historicist styles: “The building must not be too beautiful,” wrote one commentator, “lest it be a place for children to keep and not one for them to use. Its materials must be those not easily marred, and permitting some abuse. The



Figure 105. Smith, Powell & Morgridge, Thomas Jefferson Elementary School, 1954. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

finish and settings must form harmonious background with honest child effort and creation.”⁹⁸

While regional variations existed, this was a national project. The extent to which school districts throughout the United States adopted similar approaches and strategies to the modern school plant was noteworthy. Since the early twentieth century and the days of the Progressive Education Movement, national standardization was a key element of reform. But the avenues available to architects, builders, and schools in this regard proliferated in the postwar era.

The National Council on Schoolhouse Construction, for example, addressed the topic in its annual guidebook, *Guide for Planning School Plants*. Written for school facilities managers, planners, and architects, the 1946 version illustrates the extent to which ideas considered experimental just a few years before had become best practices for the nation. The emphasis remained designing schools around their function—serving and educating children. With the psychological well-being of the student the prime consideration, numerous studies were devoted to optimal interior conditions and controls, such as studies in proper lighting, color schemes, and surface reflectivity to “increase morale and to decrease fatigue.”⁹⁹



Figure 106. John Lyon Reid, Manor Elementary School, Fairfax, California, 1958. Source: J. Paul Getty Trust, Getty Research Institute, Shulman Archives.



Figure 107. Henry Gogerty, Inglewood High, 1954. Source: J. Paul Getty Trust, Getty Research Institute, Shulman Archives.

Educational Facilities Laboratories (EFL)

The need for schools remained dire through the 1950s. In 1953, the American Institute of Architects established its Committee on School Buildings to address the issue. In 1956, the committee became the Educational Facilities Laboratories (EFL), a nonprofit funded by the Ford Foundation's Fund for the Advancement of Learning. The EFL "brought together educators, architects, manufacturers, and government officials" to "encourage new ideas about both curriculum and architecture."¹⁰⁰ The EFL conducted research, sponsored conferences, and held grant competitions.

With the rate of school construction continuing apace, EFL officials visited Southern California often. In 1962, the EFL sponsored a tour of one of the nation's early open-plan schools in West Covina, California. Attending the tour were Dr. James D. MacConnell, director of the school planning laboratory at Stanford University; Dr. Paul Salmon, superintendent, Covina Valley District; and Dr. Harold B. Gores, president of EFL in New York. In 1965, the EFL conferred an award on Covina High School as one of three outstanding Californian examples of "schools without walls" (the open-plan school, described in more detail below).¹⁰¹

In 1964, the EFL sponsored an airplane tour of the United States for 60 educators, including two from Orange County. The EFL flyover tour reflects two noteworthy points about this era in school design: (1) many innovations were best revealed from the air, by looking at the campus design and plan, building siting and configuration; and (2) ideas about how to create the best possible modern school were developed in tandem and shared among architects, builders, researchers, and school officials throughout the United States.¹⁰² Between 1958 and 1976, the EFL invested over \$25 million in the rethinking and designing modern American educational facilities.¹⁰³

By the early 1960s, a shortage of teachers, as well as ever-evolving ideas about childhood development and education, prompted a renewed wave of reform. At its heart was an updated version of the Progressive Education Movement: the idea was that schools—both in terms of facility design and teaching methods—were not adequately harnessing a child’s natural curiosity and creativity. There was a renewed sense that classrooms should nurture and capitalize on these qualities and adapt to the individual needs and pace of each student.

The national embrace of team teaching (an idea further promoted because of a shortage of qualified teachers) was one result of this movement. As the name implies, team teaching established a system whereby teachers shared pupils and class spaces, and classroom sizes varied throughout the day, depending on the wishes of the teachers. A few dozen students might gather to watch a movie, then break into smaller groups to work on projects. The classroom would be a dynamic rather than static place, with mixed grade levels, multimedia educational methods, and hands-on learning.

This push for more creative, flexible curricula and teaching methods flourished in Southern Californian schools. By 1968, reformed programs had been launched in 18 Southern Californian elementary schools, in conjunction with the League of Cooperating Schools. As in early eras, methods that appeared “traditional” were de-emphasized and a more experimental classroom environment was proposed. The coordinator of the program, Robert E. Keuscher, invoked many of the same ideas shaping curricular reform throughout the twentieth century, with a distinctively 1960’s spin:

Labels are disappearing, there are fewer graded classes. Schedules are more flexible. More and more, curriculum is not worked out in advance; the kids work it out as they go along, and it’s more advanced and more scholarly. The teacher is more of a guide than an oracle. The emphasis is shifting from the group to the individual; there is more emphasis on query and discovery.¹⁰⁴

Of the Southern Californian schools making this transition, Keuscher said, “We’re helping these 18 become creative schools, but it’s a slow, painful process. Our biggest problem is to make teachers and principals comfortable with change. ... But it has been great to emancipate the creative teacher.”

Throughout this era, the debate on how to shape a curriculum that best served children, and how to keep up with ever-expanding enrollment figures, continued to evolve. Yet the basic ideas seen in the early twentieth century remained at the heart of educational reform at midcentury. The evolving experiments in curricula and school plant types grew out of the same wish to eliminate institutionalism and to fashion a child-centered curriculum and school plant. The variety of building plans and campuses that grew out of midcentury reform reflected the postwar boom of construction and population, the robust network of publications and organizations disseminating the ideas nationally, and evolving philosophies about childhood development and education.



Figure 108. Grover Cleveland High School, Charles O. Matcham & Stewart S. Granger and Associates, architects (1959), Reseda. Source: Sapphos Environmental, Inc., 2013.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

The stylistic vocabulary of choice for American schools became modern—antihistoricist, decentralized, with function instead of style the driving concern. Of course, modernism did not take hold in earnest for residential design (to the dismay of many architects at the time). But for schools, by 1950, “the battle between ‘contemporary’ and ‘traditional’ was won. The public not only began to accept ‘modern,’ but also demanded it. ... This new movement ... brought together educators as well as architects, and together they are forwarding the cause of architecture for children.”¹⁰⁵

Although this era brought a major stylistic shift, from the architects’ perspective, designing in a modern “style” was not the main concern. Progressive architects at midcentury often sounded a tone of idealism about the social value of their work. As architect William Wayne Caudill explained about school design, “There is no ‘modern’ style as such. Each new building ideally is the product of specific solutions to individual problems peculiar to that building’s particular environs, site, function, budget, and designer. If two new schools are similar in appearance, they are ... only because they were designed to perform similar specific functions in similar environments.”¹⁰⁶

This was especially true for architects trained and already practicing in the pre-1945 era. William Wayne Caudill was among them; the Texas architect graduated from MIT in 1939 and, by 1941, had already authored a pioneering study on modern school design, *Space for Teaching*. Throughout the 1940s and into the 1960s, Caudill and his firm specialized in functional, modern classrooms and campuses.

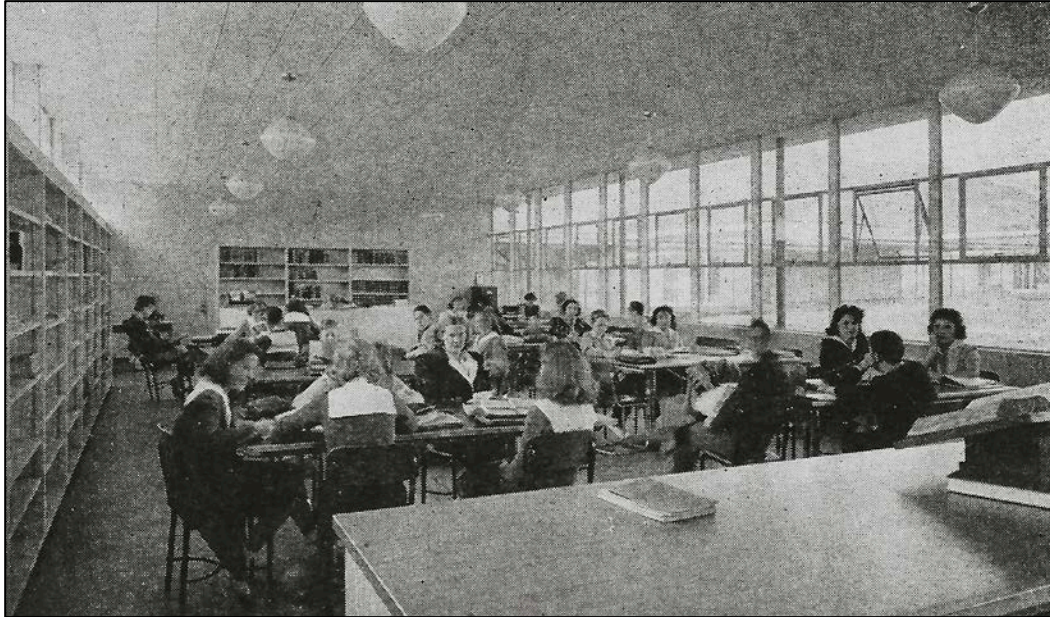


Figure 109. Balanced cross-lighting is achieved through full-length windows on the north elevation and clerestories on the south. Franklin & Kump, Acalanes Union High School. Source: *Built in USA*, 1944.

By 1969, Caudill had become an international authority on school design, and his firm, Caudill, Rowlett & Scott, had designed educational facilities in 28 states. Caudill's classic finger-plan schools in Blackwell, Oklahoma, designed in the late 1940s and early 1950s, epitomized the school planning ideals of the time. In 2009, all four schools—Huston, Northside, Parkside, and Washington Elementary—were listed on the National Register for their exemplification of postwar ideals of modern American school design.

Whether a postwar school exhibited a modern or mildly historicist design, they likely shared the same basic design principles. Postwar schools were designed to feel decentralized, nonhierarchical, approachable, informal, and child-centered (indeed, domestic-scaled for elementary schools, with lower ceilings making the class feel more like a living room). The preferred massing was one story, with an axial wing of classrooms usually one room deep, to provide cross-lighting, ventilation, and easy access to the outdoors.



Figure 110. Orville Wright Middle School, library roof slopes upward on north elevation to allow for maximum indirect lighting. Source: *LAUSD Orville Wright Middle School, Pre-Planning Survey*, 2011.

Postwar schools continued to emphasize and experiment with the limits of indoor-outdoor integration. By the postwar period, one feature that was still experimental in the 1930s was now essential: canopied outdoor corridors. Supports remained simple posts or pilotis, either in steel or wood post-and-beam. It was a feature used in schools throughout the United States. Outdoor corridors lined classroom wings, providing sheltered circulation throughout the campus as well as outdoor gathering spaces.

During this period, size and orientation of windows took cues from the environment: a building with north-south exposure, for example, might feature large-panel, floor-to-ceiling glazing on the north elevation, with bands of clerestory casement windows on south elevations modulating or softening illumination. Experiments in roof configuration and design also tackled the issue not only of lighting but acoustics.

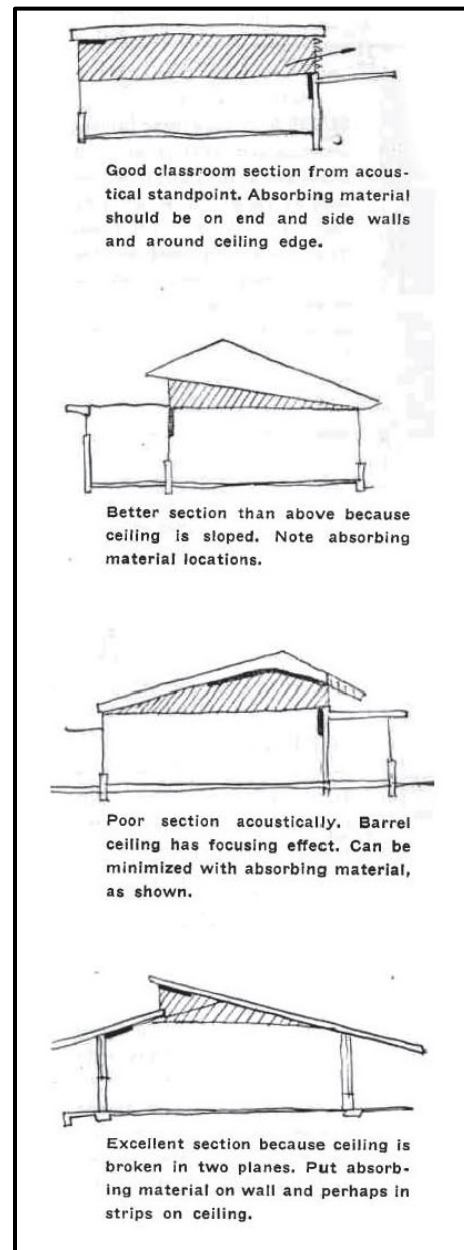


Figure 111. Architectural Forum, 1949, showing studies of roof configuration and acoustic properties. Source: Baker, 2008.



Figure 112. Fern Drive School reflected the latest ideas about roof-line configuration and classroom acoustics. Smith, Powell, & Morgridge, 1956, Fullerton. Source: Getty Research Institute, Shulman Archives.



Figure 113. Thomas Jefferson Elementary School, with covered corridors, outdoor courtyard spaces, ample awning casements and clerestories. A sloped shed-roof caps the building for good classroom acoustics. Smith, Powell, & Morgridge, 1954, Anaheim. Source: Getty Research Institute, Shulman Archives.



Figure 114. Hallways move outdoors in postwar schools. El Monte School (1956) Los Angeles County. Source: Getty Research Institute, Shulman Archives.



Figure 115. Classroom and patio are one in Neutra's Kester Avenue Elementary School (1951), extant, Sherman Oaks, San Fernando Valley. Source: Getty Research Institute, Shulman Archives.

When necessary, massing might climb to two (or rarely, three) stories, if real estate was scarce and demand was high. But this allowance was more commonly made for junior and high schools. Roofs were flat, sloped, or occasionally gabled, with simple, exposed construction systems of steel or concrete framing with large-pane in-fill windows. Wide overhanging eaves with simple porch or piloti supports were common for connecting corridors. In terms of materials, the treatment and finishing were simple and unpretentious.

In the postwar period, architects economized through the use of new prefabricated materials, such as plywood, glass, and steel, as well as modular design and coordination, a 1930's movement that took off in the postwar era following the 1945 adoption of the 4-foot module as the American Standard Measurement.¹⁰⁷ Modular design and construction allowed for easy expansion as school enrollment grew and was a common construction technique in Southern Californian schools. (Two early all-steel-frame schools in Los Angeles were the 1937 Emerson Junior High, by Richard Neutra, and the 1959 Justice Street Elementary School in Canoga Park; stylistically unpretentious, the school was promoted as durable, safe, and easily expandable, a concern that remained pressing at the end of the 1950s.)

Modular site planning and design also lent itself particularly well to creating the indoor-outdoor connections now considered essential. As with the residential architecture of the era, school design relied on generous expanses of windows and outdoor access to patios or courtyards to provide students with recreational areas and outdoor classrooms. Throughout the United States, the importance of indoor-outdoor living for both residential and educational architecture remained a central concern. In this respect, California schools continued to garner national attention. In its 1949 series on postwar American schools, for example, *Architectural Forum* commented that "possibly because California's balmy climate ventilates educators' minds as well as their houses, California schools have been less tradition-bound than most. As one of the fastest growing states in the union, California has had plenty of chance to experiment in school design."¹⁰⁸

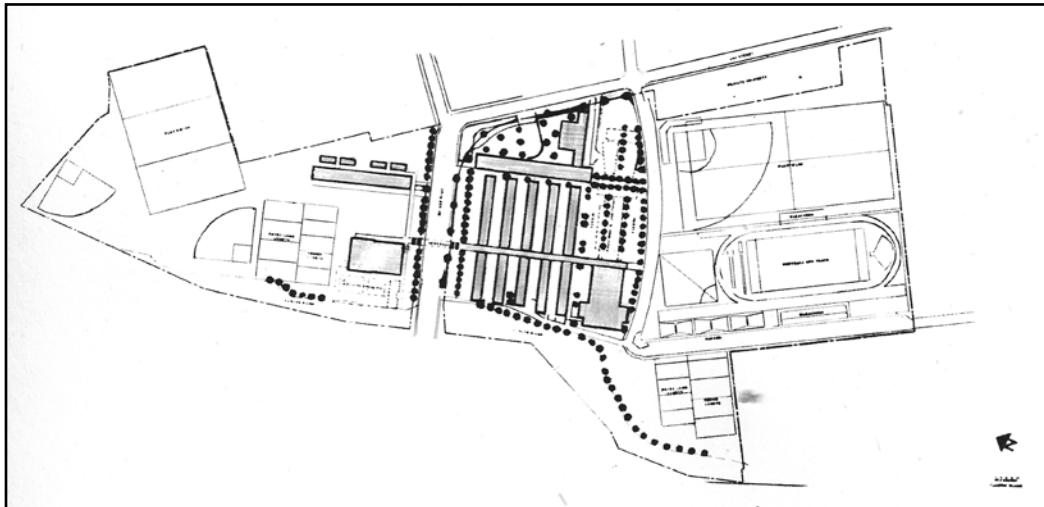


Figure 116. Ernst J. Kump, San Jose High School, San Jose, California, 1952. Source: *Built in USA*, 1952.

By the 1950s, school design had entered “a new age of innovation,” as the decade brought “a proliferation of standardized plans and facades.”¹⁰⁹ In California and elsewhere, three main plan types emerged during this period: the finger-plan school, the cluster-plan school, and the open-plan school. As the trends came and went, these plan typologies morphed, hybridized, and changed. But they shared basic design principles, and most reflected the tenets of midcentury modern design.

The 1940s and the Decade of the Finger-Plan School

The plan type that best captured the design principals of the immediate postwar years was the finger-plan school, which was launched in the late 1930s in Franklin & Kump’s Acalanes Union High School and the Saarinen’s Crow Island Elementary School. According to *Architectural Forum*, this plan type, dubbed the “western finger plan,” became the most influential building typology for schools in the 1940s. The finger-plan school resembled

a tree plan, based on a trunk corridor with side branches. It rests on radical standardization of classrooms; on absolute insistence that all classrooms share the best (north) orientation to sun and air; daylight for all of them from the open-corridor side as well as the main window side. This plan is not only flexible ... but extensible indefinitely outward like a tree, by growing at branch-ends and by sprouting new branches.¹¹⁰

To illustrate the advantages of the plan in 1949, *Architectural Forum* chose the 1939/1940 Acalanes Union High School, which it described as

the first large scale school which could serve as a complete demonstration of principles which amounted to a schoolhouse revolution—the revolution of the thirties. Since then, the Acalanes type of school, with its wide ranging, one-story classrooms arranged according to the “finger” plan, has swept the West Coast, is sweeping rapidly across the Midwest on its way to the East Coast.¹¹¹



Figure 117. An expanded Acalanes Union High School, Franklin & Kump. Source: *Schoolhouse: A Primer*, 1958.



Figure 118. Finger-plan school in Eugene, Oregon, 1947. Kelly Junior High. Source: Pinyerd Historic Postcards.



Figure 119. Exterior of a finger-plan school: G. Russell Wilkerson Elementary School, 1950, El Monte. Source: Getty Research Institute, Shulman Archives.

Acalanes had been published nationally, on multiple occasions, prior to 1945, but it was in the postwar period that the “schoolhouse revolution” it started took off in earnest. In the immediate postwar period, numerous examples could be found on the West Coast. Even though the plan type spread through the United States, the Californian roots and flavor of Acalanes Union High School were often highlighted.

In 1958, a self-described “primer” on how to build a good modern public school described Acalanes High School’s divided “rows of classrooms with open-ended corridors of greenery, to achieve good ventilation, sound isolation, and a remarkable California-like architectural comfort.”¹¹²

Built in USA included another California finger-plan school in its 1952 edition, San Jose High School, also by Ernest J. Kump. In San Jose High School, Kump proposed a slightly more condensed finger-plan, with concrete-frame construction, generous expanses of windows set flush to the wall plane, and a sheltered corridor with unadorned post supports providing circulation and outdoor spaces.



Figure 120. Huston Elementary School, Caudill, Rowlett & Scott, 1949, Blackwell, OK. Source: Getty Research Institute, Shulman Archives.



Figure 121. Huston Elementary School, Blackwell, OK. Source: Google Maps, 2013.

With many of the early experimental schools located in California, the issue arose of whether these prototypes would work in the rest of the country. In a 1943 article on modern American schools, Elizabeth Mock commented on this question: “Many people have the illusion that such schools are impractical. ‘Fine for California,’ they will say, ‘but not for this climate. Too costly to build and heat.”¹¹³ However, Mock argued, modern materials and construction techniques were sound and economical enough to mitigate these problems. William Caudill appears to have agreed, as evidenced in his four classic finger-plan schools in Blackwell, Oklahoma (all now listed, as noted earlier, on the National Register of Historic Places).

As the popularity of the finger-plan school increased, its basic form changed to accommodate climate variations. Modifications on the plan included double-loaded hallways to provide the same level of indoor-outdoor connections, light, and ventilation, but with one less elevation exposed to the exterior. In the Midwest, the spread-out finger-plan became a compact trunk, with double-loaded corridors providing better insulation. Other plan innovations included a zigzag building plan, with an interior connecting walkway, in order to double-load corridors but also maximize window space for each classroom.

Two examples of more condensed finger-plan schools are seen in Richard Neutra’s Kester Avenue Elementary School in Sherman Oaks and Robert Evans Alexander’s Baldwin Hills Elementary School in Los Angeles, both from 1949 to 1951. Neutra designed the finger-plan of the Kester Avenue Elementary School around a compact central axis, with classroom wings alternating with landscaped patios. With its seamless connections between classrooms and outdoor play areas, the Kester Avenue facility displayed, in Esther



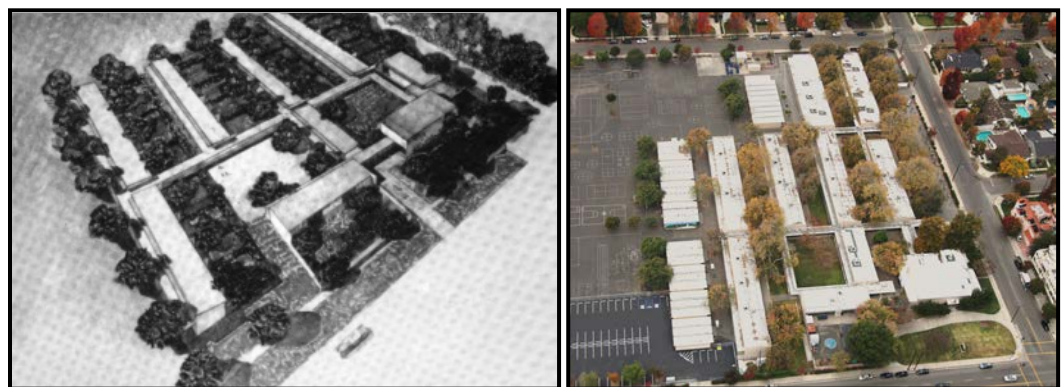
Figure 122. Kester Avenue Elementary School, Richard Neutra (1951), Sherman Oaks. Source: LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011.

McCoy's word, the "essentials of the open-air classroom ... restated in a more refined form."¹¹⁴ Canopied passageways supported with light steel columns provided circulation and outdoor gathering areas.

Baldwin Hills Elementary School was constructed as part of the groundbreaking garden city of Baldwin Hills Village. Architect Robert Alexander arranged the school along a central corridor/axis, with parallel classroom wings extending from each side in lengths tailored to fit the site. Swaths of greenery divide the classroom wings, which are sheltered beneath wide overhanging eaves. The focal point of the entrance is a dramatic, cantilevered canopy, resting on a simple steel I-beam. The design otherwise is spare, unpretentious, and modern.



Figure 123. Kester Avenue Elementary School, Richard Neutra (1951), Sherman Oaks. Source: LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011.



Figures 124 and 125. Neutra's conceptual sketch of Kester Avenue Elementary School and the current aerial view. Source: McCoy, Neutra (left) and LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011 (right).



Figure 126. Robert Evans Alexander, Baldwin Hills Elementary School, 1949-1951. Source: The J. Paul Getty Trust, Getty Research Institute, Shulman Archives.

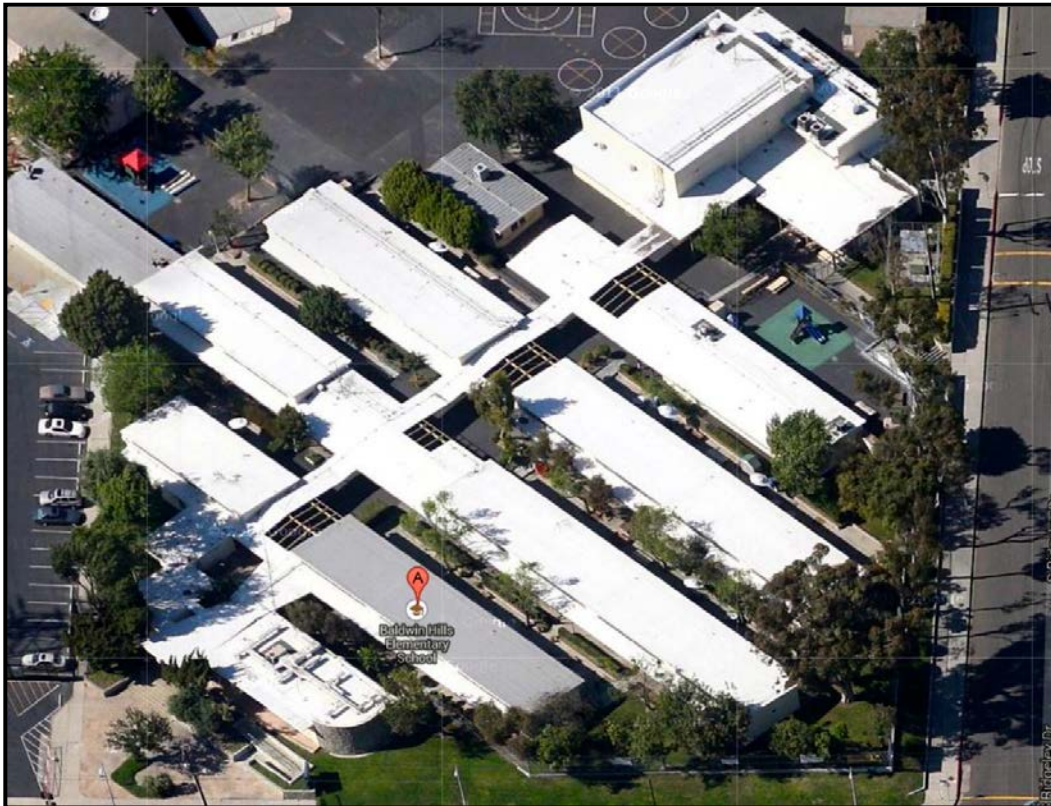
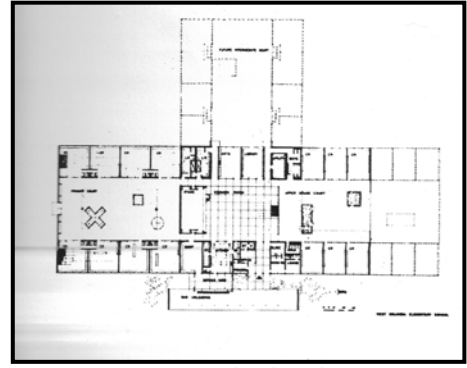
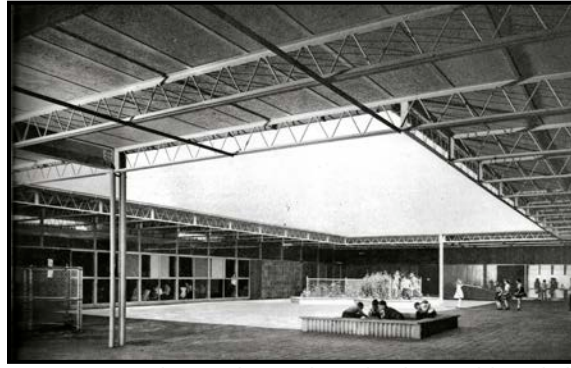


Figure 127. Neutra & Alexander, Baldwin Hills Elementary School. Aerial shows the condensed finger-plan design used to create the preferred one-story massing, set off by swaths of landscaping and patios, but with a more compact site plan. Source: Google Maps, 2013.



Figures 128 and 129. Cluster-plan school, Donald Barthelme & Associates, West Columbia Elementary School, West Columbia Texas, 1950. Source: *Built in USA*, 1952.

The 1950s and the Advent of the Cluster-Plan School

By the early 1950s, the popularity of the finger-plan school had begun to decline.¹¹⁵ First, the design required large swaths of land to accommodate the extended site plan. Second, the plan increased cross-campus walk times and communication. In some scenarios, it also made more sense to build upward instead of outward. On hillside locations, where an expanded footprint meant doubling or tripling already expensive grading costs, the finger-plan school was not a viable option. In mass circulation and trade magazines of the day, though, the one-story scale was still preferred, in particular for elementary schools (the exception remained densely developed urban sites, where one could only expand upward).

The need for cost-effective school design and construction was an additional factor in the move away from the finger-plan. By the early 1950s, there were signs that the immediate postwar focus on carefully harnessing and controlling light—including orienting the building on a north-south axis to create the perfect blend of cross-lighting—was becoming too time-consuming. Not all sites would be large enough, and not all building programs well-funded enough, to justify having such an expenditure of design time devoted to fenestration alone. In 1952, *Architectural Record* observed that, in national school design,

in more and more localities we can expect substantially less emphasis on daylighting. Natural light is so variable that it can seldom be relied on during the entire school day without considerable recourse to electric light. Control of daylight to prevent glare has been found costly and involved.¹¹⁶

With high demand and restricted funding for new schools a constant issue, the possibility of a more compact campus plan became the subject of study, a few early prototypes, then a new trend, the cluster-plan school, by the early



Figure 130. Cluster-plan school, Perkins & Will, Heathcote Elementary School, Scarsdale, New York, 1953. Source: *Ogata*, 2008.

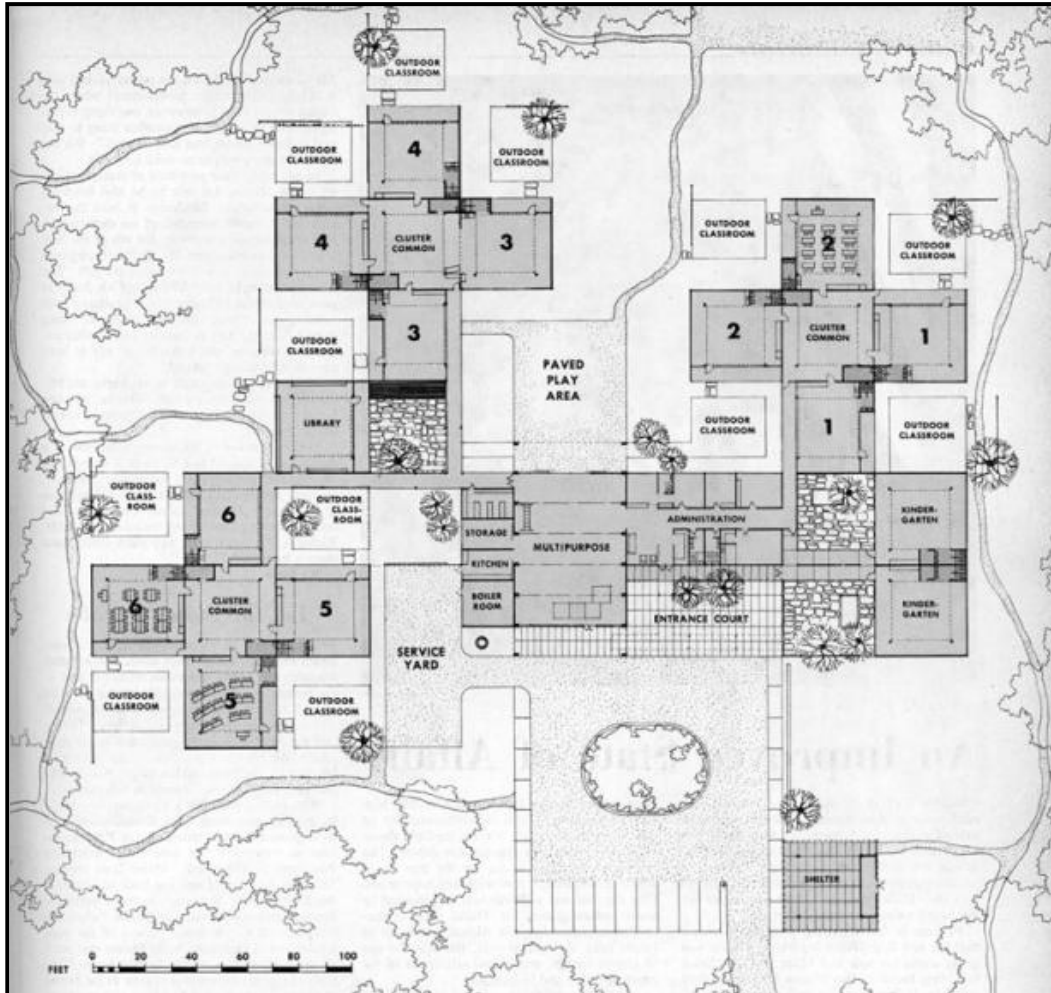


Figure 131. Prototype for a cluster-plan school and unified campus, *The Architect's Collaborative*, Walter Gropius, 1954. Source: Ogata, 2008.

1950s. The cluster-plan school offered a logical solution to these issues. It retained the low massing and indoor-outdoor access and views for all classrooms. But rather than extending wings along an axis, the plan called for grouping them as modular, standalone units around a shared central courtyard. Classrooms still had generous expanses of windows, but now views took in the courtyard and other classrooms, which provided a more communal, neighborhood-like setting. As architectural historian Amy Ogata observed, the plan type provided “both economy and a meaningful spatial experience. In organization and details, the prominent cluster schools of the early and mid-1950s reflected a new sensitivity to the child’s perception.”¹¹⁷

As with the finger-plan, the new typology was interpreted and designed in many different variations, but the basic ideas remained the same.

Even in California, with space to grow, the cluster-plan became the preferred typology in the 1950s. Finger-plan schools were still built—usually the condensed or modified typologies



Figures 132 and 133. On left: Courtyard of a cluster-plan school: John Muir Elementary School (1951), John Lyon Reid, Martinez, California (northern California). Source: Ogata, 2008. On right, aerial of John Lyon Reid, John Muir Elementary School. Source: Google Maps, 2013.

already emerging by the late 1940s. But by the early 1960s, the cluster-plan school had “almost universally replaced the finger plan concept.”¹¹⁸ In a five-year study of the state’s school plants, the California Department of Education praised the cluster-plan for more efficient land utilization and for encouraging “cooperation between teachers by allowing them to share multiuse classrooms, resources center, and teacher preparation areas, all adjacent to their classrooms. ... Better acoustical control and lighting is evident, and technology is enabling these comfort factors to be coordinated with flexible interiors.”¹¹⁹

The advantages of this plan were many: more child-friendly in its scale and setting, especially for younger children; more communal, with more shared spaces; and easier to supervise. With this plan, what had been the corner of the room on the interior became the front row on the courtyard.

One early example in California was John Lyon Reid’s 1951 John Muir Elementary School in Martinez, California, northeast of San Francisco. In his design, Reid employed a typical pavilion-like plan, with long one-story classrooms separated by patios and landscaping, accessed via sheltered walkways with wide eaves. The classroom wings are clustered around cross-wings, creating a courtyard setting. As with the Saarinen’s Crow Island school, Reid’s L-shaped classrooms created enclosed outdoor areas for outdoor play and recreation. In a demonstration of the nonhierarchical, informal campus, Reid also eliminated the formal auditorium and designed instead an all-purpose room, “for meetings, lunches, and play, that looked onto a central courtyard through large sharply angled windows.”¹²⁰

Within the Los Angeles City School District, Sumner Spaulding and John Rex’s Orville Wright Middle School (originally Westchester High School) was another early example of a finger-plan and cluster-plan hybrid, this time for a high school campus. The school incorporated the best of midcentury modern design, by one of the region’s renowned firms, with the newest design principles for school plants. Completed in stages between 1948 and 1952, Orville Wright Middle School was constructed for a growing residential community near one of Los Angeles’s centers for the aerospace industry.



Figure 134. Orville Wright Middle School (originally Westchester High School), Spaulding & Rex, 1948-1952. Source: Getty Research Institute, Julius Shulman Archive.



Figure 135. Orville Wright Middle School. Bands of clerestory windows provide balanced lighting for classrooms. Source: Flight, Westchester High School Yearbook, 1956, www.e-yearbook.com.



Figure 136. Westchester High School (now Orville Wright Middle School), Spaulding & Rex (1948-1952), west Los Angeles. Source: J. Getty Trust, Getty Research Institute, Shulman Archives.

In a spare, modernist design, Spaulding & Rex incorporated the same modular design, low massing, and easy indoor-outdoor connections typical of the era (and midcentury modernism in Southern California). Cross-lighting was provided through bands of clerestories and single-pane fixed and casement windows. A network of canopied corridors linked buildings and facilities throughout the campus. In a nod to the aerospace industry employing much of the adjacent community, the campus cafeteria featured a circular, space-age design.

The campus overall displays a decentralized but unified plan, zoned for automobile and pedestrian-only areas, with pavilion-like classrooms wings “clustered” around courtyards. In the “Curating the City” program for modern architecture, the Los Angeles Conservancy noted that Spaulding and Rex’s Westchester High School took the basic tenets of the International Style and Southern Californian educational architecture and “turned them into a spectacular example of a Mid-Century Modern school. ... This campus is a wonderfully intact and very vibrant testament to the power of good ‘design for learning.’”¹²¹

Another LAUSD example of a hybrid finger- and cluster-plan school is the George K. Porter Middle High in Granada Hills. Built in 1959 and designed by Rowland H. Crawford, the campus displays a pavilion-like plan, with axial classroom wings connected by a central corridor. Swaths of landscaped patios divide the classrooms. Interrupting the axis, the focal point of the campus is a landscaped quad, with an expansive lawn ringed by trees creating a neighborhood, park-like setting.

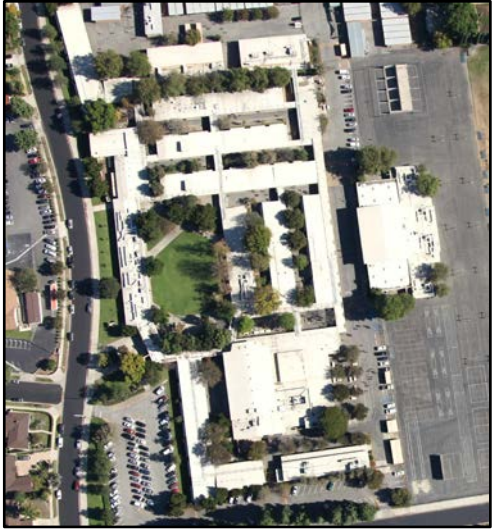


Figure 137. Combination cluster- and finger-plan, George K. Porter Middle School, Granada Hills, California, 1958. Source: LAUSD Porter Middle School Pre-Planning Survey, 2011.



Figure 138. 1953 aerial, Orville Wright Middle School. Source: USDA, www.historicaerials.com.

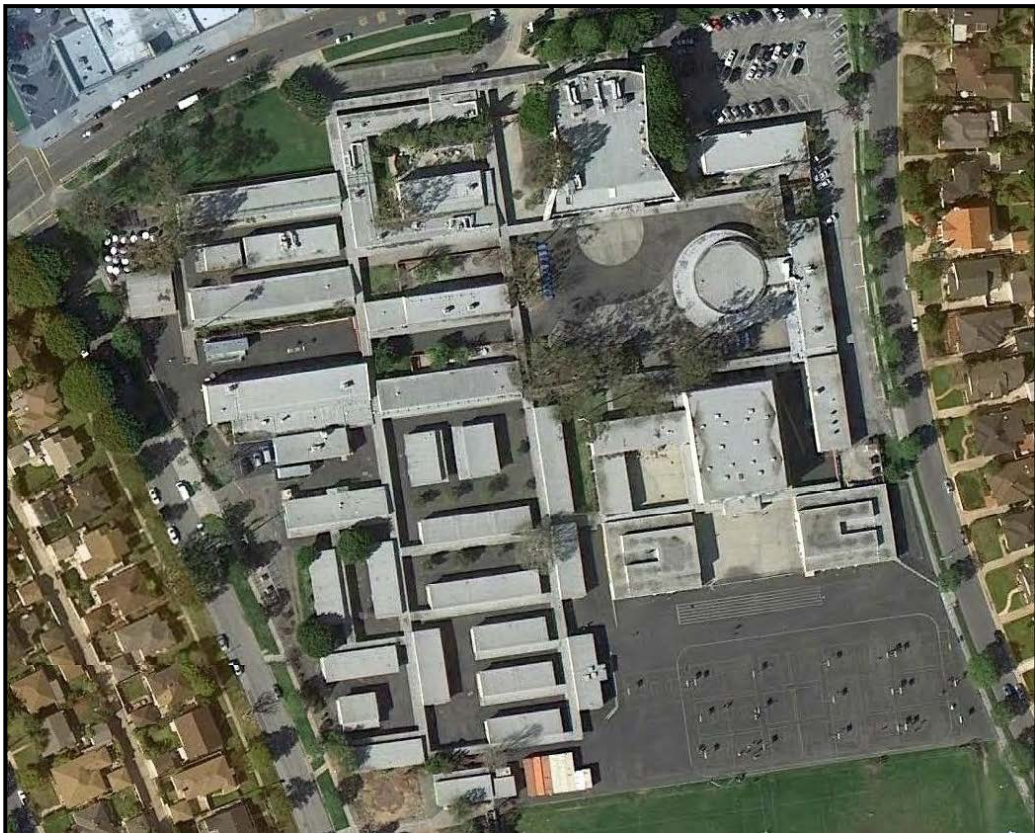


Figure 139. As of 2012, the campus plan of Spaulding & Rex's Orville Wright Middle School remains largely intact. Source: LAUSD Orville Wright Middle School Pre-Planning Survey, 2012.



Figure 140. George K. Porter Middle School (1958), Granada Hills, San Fernando Valley (extant). Source: Getty Research Institute, Julius Shulman Archives.

Typical of modern campus planning, and similar to Orville Wright Middle School, the site plan turns inward on itself. Automobile traffic and drop-off areas are located on the exterior, with extended canopied corridors providing access to the campus.

The George K. Porter Junior High also reflects how Los Angeles's still-expanding suburbs provided a testing ground for modern design and programming ideas school plants. The school is located in Granada Hills, also home of Joseph Eicher's celebrated midcentury modern tract of Balboa Highlands, now a Historic Preservation Overlay Zone in the City of Los Angeles. These buildings and so many others like them reflect how the suburbs continued to expand, especially throughout the San Fernando Valley, and how by the late 1950s midcentury modernism enjoyed wide acceptance among the public.

The 1960s and the Open-Plan School

Another wave of school plant reform in the early 1960s brought calls for more flexibility. To accommodate the new method of "team teaching," the focus became designing completely adaptable interiors, with movable walls and few built-ins, in a new typology known as the open-plan school.

In light of this new trend, the finger-plan of the 1940s—those "once-daring school plants with long corridors and classrooms located on one or both sides were now dismissed as hopelessly dull 'egg-crates.'"¹²² Basic features like load-bearing interior walls came to be seen as too limiting. As the EFL wrote in a study, "'Old walls should not stifle new ideas. Identical boxes must not enforce the same program on all students and teachers; each is a unique individual. Fixed furnishings must not quash spontaneous inquiry.'"¹²³ The school capable of serving the needs of students, the EFL concluded, offered space to "accommodate groups of various sizes from 100 students down to one or two students studying by themselves" and "space allowing for the rapid shifting of group size or change in group's activity."¹²⁴



Figure 141. Caudill, Rowlett, & Scott, Paul Klapper School, New York, 1966-1967. Source: Ogata, 2008.

EFL findings were well publicized and widely published, first finding audience in the nation's many education-related trade publications and into mass-market newspapers. Reporting on the findings of an EFL study, the *Los Angeles Times* wrote that "if you were to take the roof off most schools and look in, you would see a series of identical rooms, approximately 30x40 ft., strung along both sides of a corridor. This is the floor plan of an obsolete school."¹²⁵ This description, of course, fit the classic finger-plan school, and many cluster-plan schools, considered cutting-edge just one decade before.

What this meant in terms of school design was a less low-slung, spread-out campus; the buildings were more compact, with higher ceilings. The idea of cross-lighting and ventilation provided by the long rectangular classroom wing fell out of favor. They were no longer as essential, since, in the early 1960s, improved air-conditioning systems diminished the importance of cross-ventilation and less glazing was generally



Figure 142. Thurston School, Open Plan Model (1967), Flewelling & Mood. Source: Getty Research Institute, Julius Shulman Photography Archive.

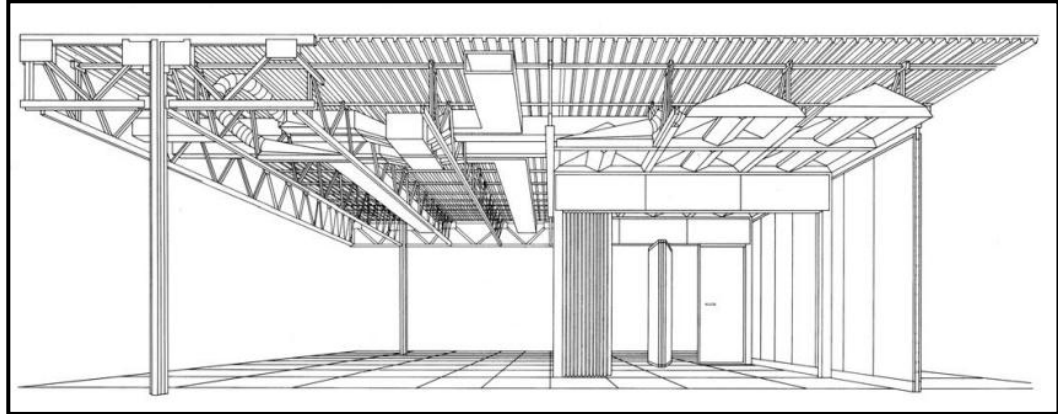


Figure 143. Standardized, demountable components for an open-school, *School Construction Systems Development*. Source: Ogata, 2008.

used. Since the open-plan school had to accommodate interior spaces separated by non-load-bearing walls, roof spans had to be long and high, with a steel structural system providing, essentially, a large high space into which the school's program could be designed. Massing increased, and corridors moved back inside.

Although the most obvious changes brought by the open-school plan were to school interiors, the shift was also discernible on the exterior. Some—but not all—open-plan schools adopted the circular form, with architect William Caudill arguing that the circular form best served team teaching, since the circular plan offered “continuous movement of children.”¹²⁶

Architects also experimented with hexagonal building shapes, either with self-enclosed campuses or smaller circular classrooms clustered around a common area or courtyards (in yet another variation bringing together two plan types). One of the “most adventurous examples” of the plan type, according to architectural historian Amy Ogata, was Caudill, Rowlett & Scott's Paul Klapper School in New York, constructed in 1966/1967.

School Construction Systems Development (SCSD)

In efforts to promote the open-plan school, the EFL awarded a substantial grant to develop “an economical, standardized building system” through its School Construction Systems Development (SCSD) program.¹²⁷ The program developed, standardized and manufactured modular components and structural systems for open-plan schools. The SCSD school components and infrastructure were standardized but aesthetically flexible, allowing for design and plan variations so that “architects were not limited in plan layout.”¹²⁸ High roof spans of 60 to 70 feet provided the structural template into which the school's interior program could be designed.

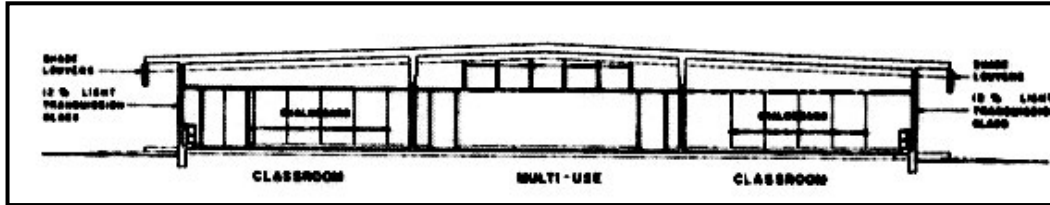


Figure 144. Section, Van Duzen Elementary School, open-plan school with cluster-plan configuration.
Source: Gibson, 1965.

The SCSD system was promoted nationally. In 1962, the program “had the commitment of twelve California school districts to develop and build schools worth 25 million dollars.”¹²⁹ Ultimately, 13 SCSD schools were constructed in California. The formation of the SCSD also grew out of the astronomical costs facing school districts and boards to keep up with demand; the goal was creating prototypes that offered economical, good design, reflecting the latest ideas in educational methods and school plant design. Modern school architects around the nation experimented with the new ideas.

Ultimately, in spite of high expectations, open-plan schools “faced problems of practicality and perception.”¹³⁰ Problems related to acoustics plagued open schools, for example. The gap between theory and practice also became an issue, as the open-plan school did not in and of itself guarantee that teachers would adopt the creative, flexible team-teaching strategies that had prompted design reform in the first place. Much national debate and discussion about the open-plan school took place in the educational and architectural trade press. By the mid-1970s, the open-plan school had joined the finger-plan and cluster-core plan as experiments in school design that declining quickly in popularity.

As with the finger- and cluster-plans, there were many combinations of the main plan types. The Van Duzen Elementary School in Northern California, for example, represented one of first “cluster plan schools built in California with open planning.”¹³¹ Constructed in the early 1960s for a cooperative/team teaching program, the school consisted of three parallel classroom wings, open and flexible on the interior, but configured around an exterior courtyard, for the benefits of the clustered site plan.

Constructed in 1964, the Round Meadow Elementary School, in Hidden Hills, was another example of an open-plan school, this time in Southern California. Again, the cluster-plan idea played a role in the design: “This school is designed so that each building can work as a cluster-type ‘little school.’”¹³² At the center of each open-plan building was a multipurpose area, with a resource center and library. The buildings tended to be higher, with more wall space and fewer windows. The interior was made flexible through the use of folding walls, and a relative lack of windows was compensated for through a modern air-conditioning unit. As with the earlier postwar typologies, the open-plan type accommodated a variety of stylistic variations.



Figure 145. New community, new school: Hoover High School, Lakewood (1963). Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

LOS ANGELES CITY SCHOOL DISTRICTS | CONTEXT & DEVELOPMENTS

The Building Program

In the postwar period, the order of the day for Los Angeles City school districts was keeping up with demand. Overseeing the first decade of postwar expansion was Alfred Nibecker, who had served as chief architect for the architectural department of the district since the 1920s. As before, Nibecker oversaw design and construction of schools, with a variety of commissions still shared between area architects, in particular those who had begun to specialize in school design, and the in-house team of the district. In 1955, Nibecker was made an honorary member of the Structural Engineers Association of Southern California, the association's highest award. That same year, he retired. Following his retirement, the board appointed Ernst Raymond C. Billerbeck as district architect.¹³³

As school construction expanded in the suburbs, however, enrollment figures at several downtown schools were in sharp decline, resulting in the closing of a number of campuses in the postwar period (among them Central Junior High, founded in 1911 and closed in 1946; and Lafayette Junior High, founded in 1911 and closed in 1955). Between 1946 and 1953, the enrollment of Lafayette Junior High dropped by one-half, falling from nearly 1,400 in 1946 to 700 in 1953/1954, reflecting the population shift from the city to the suburbs.¹³⁴

During this period, standardized construction techniques and components, with variations reflecting differences in site conditions and demand, allowed the district to expedite construction. Standardization meant that many campuses throughout the district, in particular schools constructed during the 1950s, display identical or similar elements and features. Common modular components (for elementary, middle, and senior high schools) included classroom wings that are one-room deep, one story in height, with a finger-link rectangular plan. These buildings are often capped with a slightly sloped shed roof. Along one side (intended for southern exposure), clerestories span the building below the roof line. Shade is provided through either wide (usually cantilevered) roof eaves, in steel or wood, or a wide, sheltered arcade. These arcades generally rise to the level of roof clerestories and are supported on simple pipe supports.



Figure 146. San Fernando Valley expansion: Panorama City, Burton Elementary School, 1951. Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.



Figure 147. Pacific Palisades Charter Senior High School (1961), Adrian Wilson & Associates, Pacific Palisades, west Los Angeles. Source: Sapphos Environmental, Inc., 2014.



Figures 148 and 149. Fernangeles Elementary School (1954), Sun Valley, San Fernando Valley. Image on the left shows the Administration Building and Auditorium; image on right shows the student lawn and landscaping, from the vantage point of sheltered outdoor dining area. Source: Sapphos Environmental, Inc., 2014.

Along the opposite side (meant for northern exposure), window glazing is generous, usually occupying 60 to 80 percent of the wall height in grouped, multi-light, operable windows. The grouping of windows marks the location of the classroom inside, and treatments vary, from wood-framed, multi-light double-hung sashes to steel-framed casements.

By the 1960s, it became more common to see double-loaded classroom wings (for senior high schools especially, but also for some elementary schools where demand was high and available acreage was scarce). By double-loading corridors but retaining the preferred one-story massing, schools accommodated more students while also providing a more domestic scaled, indoor-outdoor campus. Also in the early 1960s, for sites with less acreage, campuses incorporated more two-story buildings, with designs still drawing upon the postwar ideals for an informal, indoor-outdoor campus.

Many slight variations of another classic feature of postwar schools, sheltered corridors, appear on campuses throughout the district as well. Intended to move hallways outside, sheltered corridors might display wood plank and beam roof structures, resting on simple piers or steel pipe supports, capped with a flat or slightly sloped roof. Many examples form an elaborate network connecting all buildings and facilities of the campus.

Many LAUSD schools constructed during this period, from the late 1940s through the 1950s, also display standard campus components and site designs. Some basic elements include an auditorium, usually cited close to the public entrance to the campus, with a low, one-story entrance wing giving way to a two-story high interior. Stylistically, the auditorium generally reflects the character-defining features or influence of Mid-Century Modern design. Detailing is spare, and materials vary. For the auditorium, and usually for the equally public administration building, brick cladding and piers flank entrances and/or accenting building bases. Other typical materials include stucco, steel, and scored concrete.



Figure 150. Narbonne High School (1956), Daniel, Mann, Johnson & Mendenhall (DMJM), Lomita, southern Los Angeles. Image shows one example of the swaths of greenery and landscaping between classroom wings. Source: MSP Architects (McDonald, Soutar & Paz, Inc.).

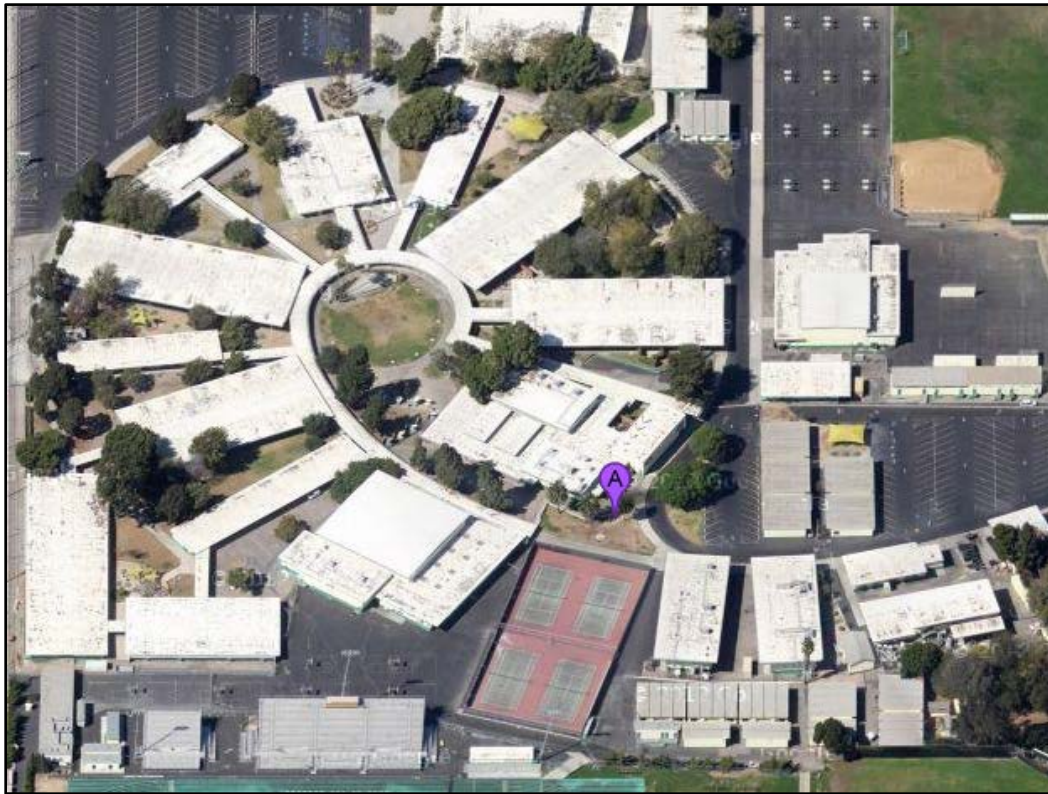


Figure 151. Narbonne High School (1956), aerial view. The finger-plan school forms a spiral, allowing for the benefits of the landscaped, expansive site plan and low, one- and two-story deep classroom wings providing easy outdoor access and views. The use of the spiral plan creates these features on a relatively restricted lot. Source: Google Maps, 2013.



Figure 152. Leapwood Avenue Elementary School (1962), Carson; image on left shows two-story, double-loaded classroom; image on right shows landscaping and patios between classrooms, connecting corridors, and wide arcade eaves. Source: Sapphos Environmental, Inc., 2014.

Other common features for elementary, middle, and senior high schools included the incorporation of a centrally located, sheltered outdoor dining area and adjacent Cafeteria/Multipurpose Building, outdoor assembly area and landscaped lawn/quad and recreation fields along the periphery of campus (the latter two features are more common for middle and senior high schools). Elementary schools often incorporated a separate area for kindergarten classes. Usually located near the Administration building, the kindergarten areas have their own patios and recreation areas, adjacent to the classroom wing.

Postwar Expansion and Educating the Baby Boom

After the tumult of Great Depression and World War II, the Board of Education of Los Angeles, in spite of a turn toward architectural modernism, shifted away from the experiments of the 1930s and back toward a more traditional, college-focused curriculum. In September 1945, the Board of Education added its voice to a movement to carry out district-wide achievement testing for students and reevaluate the curriculum, partly in order to stop the “drift toward laissez-faire, experimental, and lax methods.”¹³⁵ The curriculum was revamped, with a renewed emphasis on the “3 Rs” and additional coursework in American history and geography.

The biggest challenge facing the district at the time was keeping up with demand. In Southern California, one of the areas with the most rapid growth was the San Fernando Valley. Between 1930 and 1950, population expansion in the valley was remarkable even for Southern California. With new settlers drawn by the area’s emerging aerospace and entertainment industries, residential expansion had already been under way by the 1920s and 1930s. By the onset of the Great Depression, for example, the valley had become one of the United States’ most important hubs for the aviation industry. Given this concentration of jobs, population doubled from approximately 51,000 in 1930 to 112,000 by 1940. With the advent of World War II and an infusion of federal funds for wartime spending, these figures skyrocketed by another 50 percent in 5 years, from 112,000 in 1940 to 176,000 by 1945. Between 1945 and 1950, a nearly fourfold increase was recorded, with figures climbing to 402,000. Given the magnitude of this expansion, a majority of post-1945 school construction for the district overall took place throughout the San Fernando Valley.



Figures 153 and 154. Chatsworth High School (1963), San Fernando Valley. Double-loaded axial classroom wings fan out from a spoke-like plan, centered on a landscaped quad area. Photo on the right shows detail of courtyard spaces and landscaping lining all classrooms. Source: Sapphos Environmental, Inc., 2013.

This created another challenge for the Los Angeles City school district. Overcrowding led to the need to offer “half-day” sessions for children, where attendance happened in shifts of half-days. Bond issues in 1946, 1952, and 1955 addressed the pressing need for new school construction, and the resulting funds paid for the construction and expansion of numerous schools.¹³⁶ The 1946 bond issue provided \$75 million, which helped generate 66 new schools, with a total of over 2,300 classrooms, over 480 cafeterias, gyms, auditoriums, and other ancillary buildings.¹³⁷ In addition, over \$7.8 million went toward land for new schools, \$3.2 million for maintenance and improvements to an aging stock of facilities, \$4.5 million for grounds improvements, and \$10.6 million for equipment. In spite of these investments, another \$148 million was proposed for a 1952 bond issue.

In 1948, district-wide enrollment stood at 301,000 students; by 1949, this figure had increased by 15,000, with enrollment reaching over 316,000.¹³⁸ By the end of the 1950s baby boom, however, the student population of the Los Angeles City school district more than doubled, climbing from 316,000 to over 645,000. A further increase of 28,000 pupils was predicted for the school year 1960–1961.¹³⁹

Although the district temporarily succeeded in decreasing the need for half-day sessions in 1948–1949, by 1952 the sheer numbers threaten to overwhelm its ability to keep up. Without a new building campaign, the number of students needing to attend half-day sessions was predicted to increase from 11,355 in 1952 to 100,000 by 1957.¹⁴⁰ By 1965, in the San Fernando Valley, demand was so great that school district officials began predicting that school plants would soon occupy high-rises, a trend that was not desired but seen as a possibility.

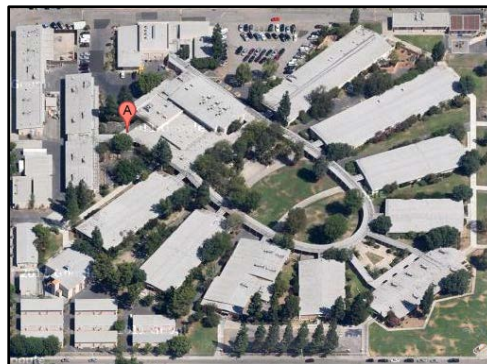


Figure 155. Chatsworth High School, aerial view of site plan and design. Source: Google Maps, 2013.



Figures 156 and 157. Colfax Avenue Elementary School (1950-1955), North Hollywood-Valley Village. Source: Sapphos Environmental, Inc., 2014.

Funding was not the only challenge facing the district. There was a pressing need for new construction, but also a shortage of trained architects in the immediate postwar years (this tide started to turn in the 1950s). In 1949, the State of California issued a “renewed plea for draftsman and designers,” as the state’s ambitious postwar building program for institutional construction was falling behind schedule due to a personnel shortage.¹⁴¹

These years profoundly impacted the growth and organization of the school district. The geographic area served by the school district fluctuated over time, expanding during the 1920s and 1930s as it annexed adjacent school districts and served new areas. As of 1935, the school district enrolled 300,000 students housed in 384 schools, including 293 elementary schools, 22 junior high schools, 35 high schools, a trade school, and a junior college; and it served an area of over 1,095 square miles.

During the late 1930s and 1940s, the general trend in school district organization was toward decentralization; as communities grew and developed their own identities, they might split off and form stand-alone districts. For example, between 1936 and 1945, the Beverly Hills, Torrance, Culver City, and William S. Hart Union High School districts formed after leaving the Los Angeles City School District.

Even so, throughout the district, enrollment steadily increased. Rapid postwar residential development perpetuated the need for funds for additional classroom space, facilities, equipment, and other resources. To examine apportionment of state aid to school districts, in 1954 the state legislature created the State Commission on School Districts and directed it to examine unification and other means of reorganization of school districts in the state. The state's policy thereafter was the encouragement of unification for reasons of streamlining administrative functions and costs, enlarging tax bases and reducing dependence on state aid. Developing suburbs were, accordingly, encouraged to align themselves with the existing Los Angeles City School District, further contributing to its growth.



Figure 158. Palisades Charter Senior High School (1961), Adrian Wilson & Associates, extant, Pacific Palisades. Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.



Figure 159. Palisades Charter Senior High School (1961), Adrian Wilson & Associates, extant, Pacific Palisades. Source: Getty Research Institute, Julius Shulman Archives.



Figures 160 and 161. On left, Palisades Charter Senior High School (1961), Adrian Wilson & Associates. On right, Daniel Webster Middle School (1954-1958), Palms-Mar Vista. Source: Sapphos Environmental, Inc., 2014.

Formation of the Los Angeles Unified School District

Through the 1950s, the Los Angeles City School District remained organized as three separate entities: an Elementary School District, High School District, and Junior College District. In the late 1950s, calls for unifying Los Angeles's elementary and high school districts into one unified entity began gathering momentum. The movement for district consolidation was seen throughout the region and state in this era. As of 1959, the State of California spent upwards of \$1.5 billion for public education, spread across 1,721 separate districts, "a maze related to the state's unending growth."¹⁴²

Supported by the State Board of Education, the Los Angeles City School District and Board of Education, as well as California's governor at the time, Edmund Brown, district unification would "bring advantages in curriculum, staff and financing."¹⁴³ Proponents of the measure argued that unification would help bring costs under control by streamlining administrative procedures and eliminating duplication. In addition, a unified district would also provide a "continuity of education along a solid plane from the kindergarten to the senior year," as Los Angeles City School District superintendent Ellis Jarvis argued.¹⁴⁴

These efforts culminated in three ballot measures, Propositions C, D, and E, included in the 1960 national primary elections. The propositions easily passed. As of July 1961, the LAUSD came into being as the second largest school system in the United States, and the Los Angeles Junior College District became an independent entity.

Changing Times: LAUSD in the 1950s and 1960s

In 1960, the *Los Angeles Times* education editor, Dick Turpin, observed that "growth, the word most nearly synonymous with California, has brought many problems to the state and education has had a major share of them."¹⁴⁵ At this juncture for LAUSD, enrollment in 1959–1960 stood at 645,000; by 1960–1961, enrollment figures were expected to climb by 28,000 pupils.¹⁴⁶ The school year 1960–1961 also brought the opening and staffing of 15 new schools.



Figure 162. The 1960s arrive at LAUSD. Caption, left image: Teachers on strike, circa 1969. Source: LAPL, *Shades of LA*, #00003951. Caption, right image: “Thousands of teachers and supporters staged a mass demonstration in front of city hall.” 19 September 1969. Source: LAPL, *Shades of LA*, #00058154.

The extended postwar boom of school construction and expansion had brought dozens of new schools to the district. Between 1946 and 1962, a total of \$649.5 million in bond issues had funded the expansion. But population growth continued through the 1960s, exerting a constant pressure for new classrooms.

In 1962, the *Los Angeles Times* reported that California had become the most populous state in the nation and that this population boom was having a negative impact on the state’s schools. As a result, LAUSD had increased half-day sessions for the first time since the 1950s, during the height of the baby boom. Half-day sessions had hit a high mark in 1957, with over 48,000 classes adopting the partial schedule; this number had steadily dropped in the intervening years. But by 1962, the numbers were again on the rise, with an estimated 20,000 half-day sessions needed in the fall of 1962. Other solutions, such as the temporary fix of busing students from overcrowded to less crowded schools, was one proposed but problematic solution in the early 1960s.

Even as the need to expand and upgrade continued, signs of voter fatigue for school bond measures were becoming evident. In 1962, a defeated bond measure of \$128 million would have funded new schools and expansion in areas most impacted by enrollment increases and/or overcrowding, among them, the San Fernando Valley and central Los Angeles. By 1963, for example, enrollment in the San Fernando Valley accounted for one-third of the total for the district.¹⁴⁷ Even with the additional funds, keeping up with demand still would have proved onerous: “Had the measures passed,” reported *Los Angeles Times* education editor Dick Turpin, “the city school system could barely have kept pace with the city’s surging enrollment wave. Now additional half-day sessions are certain.”¹⁴⁸

Through the 1960s, however, the tide continued to turn against school bond measures. In 1969, for the fourth time in a row, Los Angeles voters rejected a tax increase to provide funding for “the already troubled Los Angeles city schools. A bond issue for the construction of new schools was also a victim of nonsupport.”¹⁴⁹ This trend was statewide: joining Los Angeles voters in this rejection of school bond measures were Culver City, Ventura, and San Diego, among many others. Between 1966 and 1968, “52 percent of all propositions designed to provide more funds for California schools ... have been defeated.”¹⁵⁰

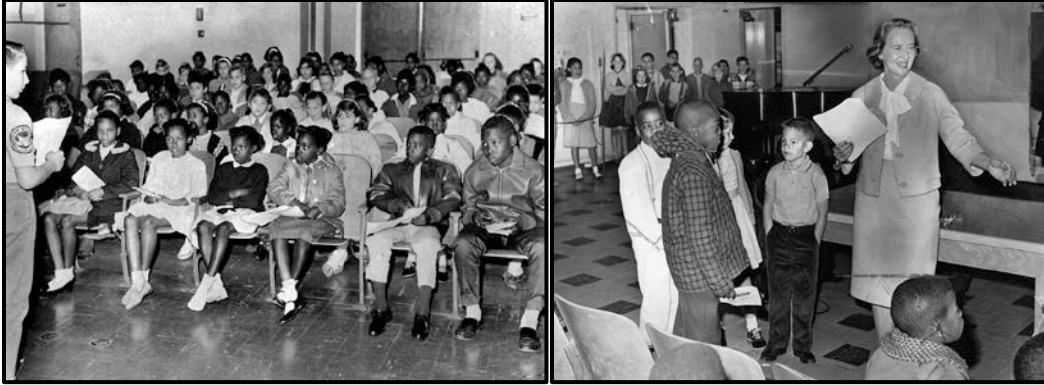
In an editorial in the *Los Angeles Times*, Warren L. Steinberg, a consultant with LAUSD’s Center for Planned Change, commented on the trend:

California businessmen and politicians—in addition to exploiting the beauties of the California scenery and climate—have long attributed much of the success in luring business to the state to an educational system that provides a large source of skilled manpower. Again, why do Californians reject support for one of the state’s most precious assets—schools? Some will answer that it is a taxpayers’ revolt, that school taxes are the only taxes on which the average citizen gets to vote and that there is no other way that the individual can show his wrath at the steadily climbing tax bite.

Steinberg captured the mood of the era, not just with respect to funding, in his concluding comments in the piece:

Our children need to ponder basic educational problems: When will equal educational opportunity be a reality, what is the place of religion in the school, what should be taught in the schools, how much is good education worth, what is the role of home and school, how free should academic freedom be, what part should students have in determining the education they will receive? Unless schools turn out a better educational product and begin to teach students the history and place of education in our society, we can expect more propositions to fail their ABCs.¹⁵¹

As the decade ended, though, the “voter revolt” against school bond measures continued, and Los Angeles city schools were tasked with serving a substantial student population with ever-diminishing resources. In 1969, for the first time in its history, LAUSD’s student enrollment dropped. The news made headlines in the *Los Angeles Times*: “‘This is a new development for us,’ said a surprised Asst. Supt. Frederick Fox. ‘The trend (of growth) has been broken.’”¹⁵²



Figures 163 and 164. School busing, 1964. On left: Loyola Village School, Playa del Rey, welcomes 82 pupils from Manchester Avenue School. Source: LAPL Herald-Examiner Collection, #00042149. On right: "Miss Ina Metcalfe, principal of Osage Avenue School, greets some of 69 pupils who were transferred to Osage from the 66th Street School. The transfer of 151 pupils from two predominantly African American schools to two all-white schools was accomplished without incident." Source: LAPL Herald-Examiner Collection, #00055171.

Civil Rights and School Integration

As the 1960s ended with this novel news—of an enrollment decrease—school officials cited the dual causes of decreasing birth rates as well as the widespread move of many families to new suburban areas outside the district. An additional factor in this shift was increasing racial tension and growing pressure on the district to correct the racial imbalance that had become evident in many schools.

In the postwar period, addressing and correcting decades of de facto racial segregation represented a significant challenge for LAUSD.¹⁵³ By the 1960s, as the Civil Rights movement gained momentum, this long-brewing issue finally came to a head and formed an important part of the social context shaping the district during this time.

Throughout the early twentieth century, racial discrimination and segregation in housing had been reflected in the demographics of Southern Californian schools. A new wave of openly discriminatory housing practices in the 1930s helped maintain and worsen these divisions. In the mid- to late 1930s, surveyors for the Home Owners Loan Corporation (HOLC) studied the demographic breakdown of communities throughout the United States, including in Southern California. The HOLC provided long-term mortgage loans to, mostly, Anglo-American clients. In addition to discriminating against potential clients, the HOLC's "security maps" helped lenders discriminate against entire neighborhoods. In this climate, ethnic diversity was considered to be a security risk.

In order to document the presence of what they termed "subversive races," HOLC surveyors went block by block throughout Los Angeles, interviewing residents and creating neighborhood profiles describing, among other things, racial composition. Hundreds of data sheets, with detailed demographic information, were created for Los Angeles alone. Neighborhoods would be assigned a color denoting the level of risk, with an inordinate amount of weight being assigned on the basis of who lived there: green usually meant that a

neighborhood was entirely Anglo-American; yellow meant that a few ethnic minority members lived in the neighborhood; and red was reserved for neighborhoods with predominantly minority populations, usually African-American.

This practice, which became known as “redlining,” fueled discrimination and racially restrictive lending practices and intensified segregation in Los Angeles.¹⁵⁴

As restrictive housing and lending practices continued in the postwar period, racial segregation became particularly pronounced in newly constructed suburbs, in particular in the San Fernando Valley. The student populations of schools reflected this: “The Valley, regardless of the region—North, East, or West—was by far the most racially segregated region of the Los Angeles School District,” according to a 1967 report released by the school district.¹⁵⁵ Among thousands of students at Birmingham, Canoga Park, Chatsworth, Cleveland, Granada Hills, Grant, Reseda, Taft, and Van Nuys high schools, there was a combined total of 19 African-American students.¹⁵⁶

However, additional factors contributed to the marked racial imbalance in so many Los Angeles public schools. As architectural historian Teresa Grimes, et al., noted:

According to Josh Sides, school segregation in Southern California was the product of racial geography, willful neglect, and racial gerrymandering. In this respect, the civil rights battle over education was very much tied to housing. If black families were restricted to living in certain areas with substandard schools, there was de facto school segregation.

While the LAUSD officially mandated that students attend the school closest to them, white students in racially mixed neighborhoods were able to seek a waiver and attend a predominately white school. This practice, combined with segregated residential patterns, resulted in de facto segregation well into the 1950s. When the NAACP started investigating the schools system in 1953 and U.S. Supreme Court handed down the landmark *Brown v. Board of Education* case in 1954, schools became a central focus of the Los Angeles civil rights movement. Resistance from both the LAUSD and white parents in affected neighborhoods throughout the city led to a protracted battle over school desegregation well into the 1970s.¹⁵⁷



Figure 165. 1963 hunger strike by school integrationists: “A year-long study on the subject of de facto segregation was scheduled to be presented to the Board of Education.” Source: LAPL, *Shades of Los Angeles*. #00041605.



Figure 166. The "East LA Blow Out," Lincoln High School, 16 September 1968. Students protested for "better schools for Mexican Americans. Sal Castro was a teacher there and spearheaded the movement." Source: LAPL, Herald-Examiner Collection, 00041327.

In the early 1960s, the NAACP and the American Civil Liberties Union (ACLU), along with a coalition of other organizations, launched a campaign of sit-ins, marches, and other nonviolent action, calling upon the Los Angeles Board of Education to adopt policies aimed at correcting racial segregation and broadening the curriculum. This coalition asserted the need for (1) the Los Angeles Board of Education to redraw its school boundaries, (2) black students in overcrowded schools to elect to attend predominantly white schools, and (3) black teachers to be hired throughout the district.¹⁵⁸ By the mid-1960s, a variety of groups joined forces, arguing for classes and subjects more reflective of the diverse histories and cultures of LAUSD students.

The issue also touched on school boundaries. In 1963, African-American leaders in Los Angeles staged protests, asking that "elementary and secondary school boundaries be redrawn around these 'Negro districts,' that that minority students be transferred from crowded schools to less crowded ones in a 15-mile radius, and that "barriers" to promotion of certified Negro personnel be eliminated."¹⁵⁹ With the Watts uprising in 1965, attitudes were intensified on all sides of the integration issue. Some citizens became more adamant that de facto segregation should remain in place, while other community members, activists, and students began arguing for and asserting the legal rights of all students to equal educational facilities and opportunities.

In 1968, Latin-American students in East Los Angeles staged a series of school strikes popularly known as the "East L.A. Blowout."¹⁶⁰ During the first week of March 1968, approximately 15,000 students walked out of classes at Woodrow Wilson, Garfield, Abraham Lincoln, Theodore Roosevelt, Belmont, Venice, and Jefferson high schools with demands for an "equal, qualitative, and culturally relevant education."¹⁶¹

Early Litigation

In 1954, in the landmark case *Brown v. Topeka Board of Education*, the U.S. Supreme Court declared that separate public schools for black and white children were “inherently unequal” and therefore violated the constitutional rights for equal protection for minority children.¹⁶² Impacts of this decision were felt in Southern California. The Los Angeles Board of Education had cited “color-blindness” as its official policy, stating that racial segregation in housing patterns was beyond their control.¹⁶³ However, when the policies of the nearby Pasadena School Board (which mirrored those of Los Angeles) were challenged in a 1963 lawsuit brought by the National Association for the Advancement of Colored People (NAACP), the California Supreme Court ruled that school boards must attempt to eliminate racial segregation, regardless of its causes.¹⁶⁴

In 1963 in Los Angeles, the ACLU filed *Crawford v. Los Angeles City Board of Education*, a class-action school desegregation lawsuit filed behalf of two African-American high school students, Mary Ellen Crawford and Inita Watkins.¹⁶⁵ The lawsuit highlighted two schools—both located in the southern portion of the district, only one mile apart—with pronounced racial imbalance: Jordan Senior High School in Watts, whose student population was 99 percent African-American, and South Gate Senior High School, which had 97 percent Anglo-American students.¹⁶⁶

The case of *Crawford v. Los Angeles City Board of Education* became a watershed for Los Angeles schools. Filed in 1963, and effectively ending in the U.S. Supreme Court in 1982, the case “encapsulated and propelled the legal and political framework of an era.”¹⁶⁷ As a result of the lawsuit, the California Supreme Court ordered LAUSD to formulate a plan to correct de facto racial imbalance in the schools. The most controversial solution proposed and implemented was busing students; programs were first established on a voluntary basis, then in a mandatory program that was hotly debated from the 1960s through the early 1980s, when a constitutional amendment passed by California’s voters and affirmed by the U.S. Supreme Court ended the practice.

Crawford v. Los Angeles City Board of Education initially sought to halt the expenditure of public funds to renovate Jordan Senior High School until it was desegregated.¹⁶⁸ The suit was filed in 1963 but amended twice: in 1966, it was broadened to include Mexican-American students, and in 1968, the ACLU further amended the case to call for district-wide desegregation.¹⁶⁹ In 1970, as a result of lawsuit, a Los Angeles City Superior Court affirmed the presence of segregated schools in Los Angeles and ordered the district to take steps to correct racial imbalance. This prompted “a protracted fight over how to desegregate the increasingly diverse and increasingly racially segregated Los Angeles Unified School District.”¹⁷⁰

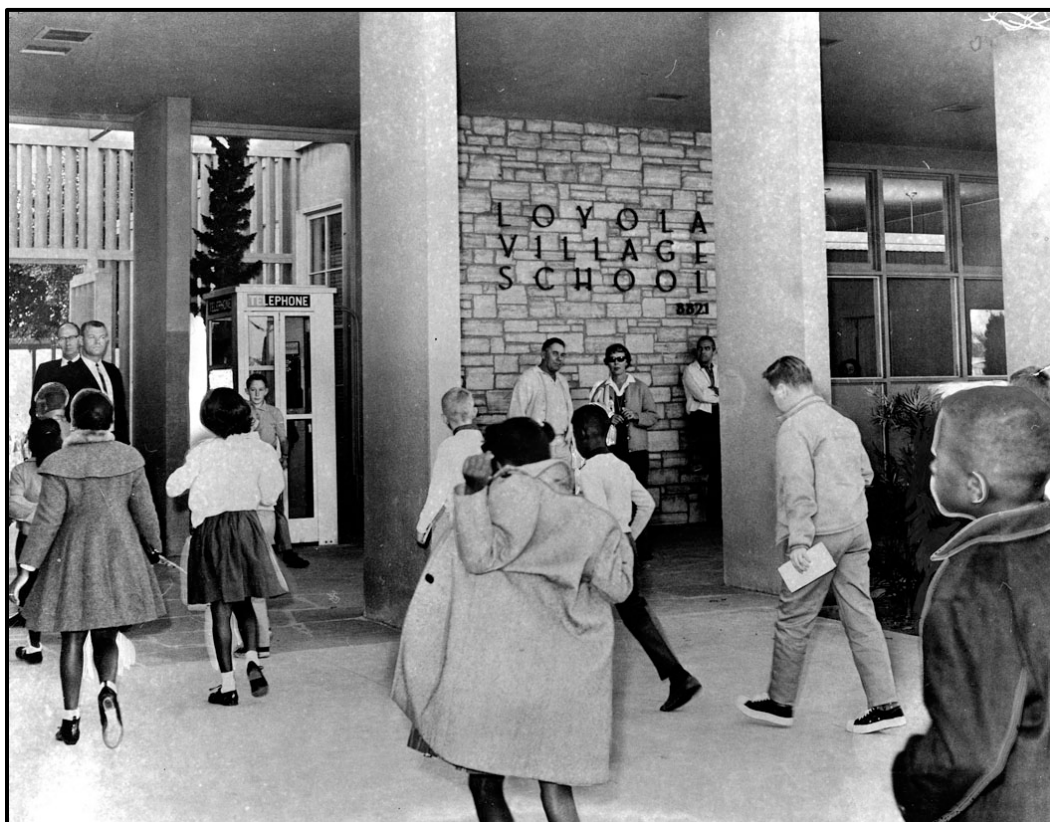


Figure 167. Voluntary busing as a solution to racial imbalance and overcrowding: This February 1964 photo shows children from Manchester Avenue School entering Loyola Village School. The caption read, "The transfer program is designed to cut half-day sessions at schools which are overcrowded by transporting pupils to schools with undersized classes." Source: LAPL, Herald-Examiner Collection, #LAPL00041639.

As mentioned, the most controversial solution involved busing students to correct racial imbalance as well as overcrowding. As early as the 1950s, and increasing in the 1960s, many communities and schools within LAUSD began exploring busing programs. In 1964, much attention was paid to a busing exchange program between relatively new schools in western Los Angeles (Loyola Village Elementary School and Osage Avenue School) and schools in older, more urbanized sections of Los Angeles (Manchester Avenue Elementary School and 66th Street School). In September 1967, a parents' group in Pacoima, in the San Fernando Valley, succeeded in establishing a busing program for 60 Pacoima students; the students would be taken by bus to the predominantly Anglo-American Encino Elementary School.¹⁷¹

During this period, in the late 1970s, two schools launched a voluntary, experimental program. Hobart Boulevard Elementary School, a multiracial school within the City of Los Angeles, partnered with Dixie Canyon Elementary School in the San Fernando Valley. In a program funded for a limited time by the Los Angeles School Board, approximately 70 second- and third-grade students from each school made the half-hour trip by bus to attend their partner school for a semester. The next semester, a new group of children would participate in the program. When the program was approved, the *Los Angeles Times* described it as “two schools, and one big step to integration”: “The Anglo parents sat for more than two hours making a decision. Carefully, thoughtfully, they weighed the arguments. ... But when the meeting was over, more than 100 parents of children in Dixie Canyon Elementary School in the San Fernando Valley agreed to participate in a voluntary two-way integration plan with Hobart Boulevard Elementary School, a multiracial inner-city school.”¹⁷² Writing in support of the program in the *Los Angeles Times*, Judith R. Birnberg, a Dixie Canyon Elementary School parent, stated that

Socially, Hobart couldn't be more ideal: children attending the school have come from 42 different countries, and such a mix is already affecting my son. ... Too many parents base their resistance to integration on the unknown. They assume minority schools are inferior, they assume the time traveling by bus will be a burden to their children; they assume children are haunted by the same fears clouding their own lives. But the time has come for parents to learn from their children.¹⁷³

In 1977, in response to a California Supreme Court ruling calling for a “reasonable and feasible” integration plan, the Los Angeles Board of Education designed a program for mandatory busing. Under the plan, approximately 55,000 fourth- through eighth-grade students would be bused to school in 1978, with an estimated 112,000 students to follow in 1979.¹⁷⁴ The program was controversial and contested on a number of fronts. Just two years after the Los Angeles Board of Education proposed its plan, California’s Proposition 1 sought to reverse it through a constitutional ban on mandatory busing. On the ballot in November 1979, Proposition 1 passed handily, with 70 percent of voters supporting the end of the practice.¹⁷⁵ On appeal in 1982, the US Supreme Court found Proposition 1 constitutional and upheld the ban on mandatory busing.

While this ruling solved one question, the issue of racial imbalance, cultural sensitivity in hiring practices and curricula, and encouraging diversity continued to shape the local- and state-level conversations about public schools through the 1960s, into the 1980s, and beyond. This issue continued to unfold in the courts on many fronts, as well as local and state governmental offices, school boards and classrooms, communities and families throughout Southern California. In this way, civil rights, ethnic identity, culture, and equal access shaped the sociopolitical context for school districts such as LAUSD in this period.

Summary: The Postwar Modern, Functional School Plant

In the postwar period, the functional modern school plant quickly became the norm throughout the United States and in Los Angeles. As school districts struggled to keep up with demand, architects had ample opportunities to test new ideas. The emphasis on the child-friendly school meant a continuing focus on improving and standardizing environmental controls, such as lighting, ventilation, heating and cooling systems, and interior design. While three main plan types emerged during this era—the finger-plan, cluster-plan, and open-plan school—there were many combinations and variations on the basic themes. Stylistically, as well, postwar schools might exhibit textbook features of the International Style, more regionally inflected modernism, or variations on the styles popular in the postwar period.

First and foremost, the postwar school was designed to be more informal, accessible, and child-friendly. A more accessible school generally signaled lower massing, though junior and high schools might still climb two or three stories, especially given the pressing need for more schools. In general, the preferred, more domestic scale was reflected in one-story massing and low ceilings, which made classrooms more intimate. Generous panels of glazing provided light and outdoor access, with larger windows on north elevations and



Figure 168. Palos Verdes High School, Richard Neutra and Robert Alexander (1961). Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

often clerestory windows on southern sides, to balance cross-lighting. With the advent of air-conditioning, schools in the early 1960s tended to diminish generous expanses of glazing. The need for economical construction and finely tuned environmental features and controls accompanied a continued national call for standardization of school design.

Campus planning and site-specific design also became increasingly important, as new residential areas emerged from former agricultural lands, and school builders and planners had the acreage to plan an entire campus created for new residential communities. In this era, ideas about planning at the scale of the neighborhood included the generous use of outdoor spaces and landscaping and a zoned design that turned the campus inward and separated pedestrians and automobile traffic, for safety and accessibility. Although many variations were proposed, the modern campus plan called for “small separate units connected by arcades or passageways and attractively grouped. This type of arrangement is quite flexible and eliminates much of the institutional atmosphere of the large compact structures.”¹⁷⁶

SECTION IV ARCHITECTURAL CHARACTER

As described in Section III, early-twentieth-century reform brought a more functional approach to school design throughout the United States. Priorities shifted, and designing according to function rather than style became the starting point for architects and builders. In this way, Los Angeles's public schools generally display a scale and function that are unique to their purpose as educational facilities. Even so, as the focal point for the community's identity and commitment to education, public schools also showcased outstanding architectural design by the region's leading practitioners. Throughout the twentieth century, the public schools of Los Angeles have reflected both the increased emphasis on functionality as well as the significant stylistic trends of the day.

The following summary of the typical architectural styles reflected in LAUSD schools serves to introduce the topic and sketch the main character-defining features and eras for each style. This section draws upon and expands the architectural character section of the 2002 LAUSD Historic Context Statement and presentation prepared by Leslie Heumann & Associates and Science Applications International Corporation of Pasadena, California.¹⁷⁷ This updated version draws upon additional field observations, as well as recognized guides and studies.¹⁷⁸

In order to ensure cross-agency compatibility, the authors of this section also considered and adapted, where appropriate, the standards used by the City of Los Angeles Office of Historic Resources and Department of Planning for historic resource surveys.

This section is not intended to be an exhaustive list of styles but rather an introduction and general framework for understanding the principal styles, as well as stylistic evolution, of LAUSD school plants. Descriptions of each style include the general period during which the style was used and its typical character-defining features.

The broad stylistic categories presented here were compiled with an understanding that architectural design is more dynamic than a fixed label might suggest. Styles and trends come together through a combination of architectural precedent, historical interpretation, creative license of designers, and the agency of clients. Therefore, architectural styles are best understood as cultural hybrids incorporating elements from a variety of sources. In this way, these descriptions offer a broad palette for identify stylistic influences and character.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969



Figure 169. Old Vernon Avenue School (1876).
Source: Heumann & Associates and SAIC for LAUSD.



Figure 170. Old Canyon School (1894).
Source: Heumann & Associates/SAIC for LAUSD.

LATE-NINETEENTH-CENTURY STYLES

Some of the earliest schoolhouses built in Los Angeles were one- and two-story, vernacular-type wood buildings, generally modeled at the scale of domestic and small civic buildings and easily enlarged or modified to accommodate growth or multiple uses. During this era of school construction, the bell tower, echoing church design, was introduced as a signature element. Three known examples of Los Angeles's early wood-framed schoolhouses have survived; in Los Angeles, this construction type was in use from the earliest years of the district through approximately 1910. The library building at Canyon Elementary School, for example, was built in 1894.

Typical Character-Defining Features:

- One- to two-story massing
- Wood-framed construction
- Horizontal wood or wood shingle siding
- Open cupola or bell tower
- Simple vernacular exteriors, or Queen Anne or Colonial Revival detailing
- Wood-framed, double-hung sash windows, often in groupings



Figure 171. Farmdale School, El Sereno (1892).
Source: LAPL Photo Archive.

EARLY TWENTIETH CENTURY: BEAUX-ARTS CLASSICISM & NEO-CLASSICAL REVIVAL

Early twentieth-century buildings brought a new architectural vocabulary to LAUSD school design. The monumental classical motifs of Beaux Arts Classicism, evident in courthouses and city halls accommodated a new scale of two and three stories. This scale was demanded by expanding enrollment and a need for increased capacity and rooms differentiated by grade level and curriculum.

Beaux Arts Classicism and Neo-Classical Revival styles were especially favored by designers following the lead of McKim, Mead and White and other prominent national firms. The impressive porticos, with classical orders and colossal columns, advertised the importance placed on public education. Primarily of masonry construction, most of these schools fell victim to the 1933 Long Beach Earthquake. The San Fernando Middle School Auditorium, constructed as part of a 6-year high school in 1916, is one of the few remaining examples of this era.

Typical Character-Defining Features:

- Monumental scale
- Formal, symmetrical design composition
- Smooth stone, masonry, or concrete exteriors (often scored to resemble masonry)
- Elaborated entrance, often featuring portico with columns
- Classical detailing, such as use of gables and entablature, columns, and pilasters
- Multilight grouped windows with wood surrounds



Figure 172. A rare remnant of the Neo-Classical era in school design: San Fernando Middle School, Auditorium, John C. Austin, architect (1916). Source: Heumann & Associates and SAIC for LAUSD.



Figure 173. Detail, San Fernando Middle School (1916). Source: Heumann & Associates and SAIC for LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

EARLY TWENTIETH CENTURY: INDIGENOUS REVIVAL STYLES AND THE ERA OF HISTORIC ECLECTICISM

As of 2013, a substantial number of LAUSD's remaining school buildings were constructed between the early 1920s and World War II. These schools reflect the eclectic menu of revival styles popular at the time for a range of building types. Period-revival styles seen in LAUSD schools include Italian Renaissance Revival, Collegiate Gothic Revival, and Tudor Revival. In addition, for Southern California's emerging architectural profession and academy, this era brought a new emphasis on the region's indigenous architectural traditions and a desire to infuse design with local character. Indigenous revival styles that rose in popularity during this period included, most notably for LAUSD public schools, the Spanish Colonial and Mission Revival. Designers expressed regional character and flavor by relating buildings to the outdoors, with one-story schools easily opened to exterior spaces, and by providing open loggias and arcades for circulation.

Where design was a priority, the stylistic program of the school is generally most clearly expressed in the campus's public buildings, such as the auditorium or administration building, and at primary entrances to buildings or classroom wings.



Figures 174 and 175. Renaissance Revival Style: Joseph Le Conte Middle School, Edgar Cline (1922). Source: LAUSD Le Conte Middle School Pre-Planning Survey, 2012 (left) Heumann & Associates and SAIC for LAUSD (right).



Figures 176 and 177. Northern Italian Renaissance: Hamilton Senior High School Administration Building, John C. Austin & Frederick C. Ashley, (1931). Source: LAUSD Hamilton Senior High School Pre-Planning Survey, 2010 (left) Heumann & Associates and SAIC for LAUSD (right).

MISSION REVIVAL AND SPANISH COLONIAL REVIVAL

Beginning with efforts to restore California’s missions in the late nineteenth century, Southern Californian architects began looking toward regional history for stylistic cues. The region’s climate and Hispanic heritage figured prominently in these new directions. The Mission Revival vocabulary, most popular between 1890 and 1920, drew inspiration from Southwestern missions. Identifying features include curved parapets and red tiled, low-pitched roofs. Arches were used liberally, and wall surfaces commonly displayed smooth stucco. The Spanish Colonial Revival flourished between 1915 and 1940, reaching its apex during the 1920s and 1930s. This movement was catalyzed by architect Bertram Goodhue’s 1915 designs for Panama-California Exposition in San Diego. The Spanish Colonial Revival style became one of the most popular idioms for a range of building types. Architects and builders embraced the style, which was employed for many LAUSD schools. The rise in popularity of the Spanish Colonial Revival style also coincided with the move toward more child-scaled schools, with lower massing and open, expansive campuses. With its emphasis on arcaded corridors and patios, the style fit this movement particularly well.

Spanish Colonial Revival buildings tend to be asymmetrical and sheathed with smooth stucco. Roofs generally consist of gabled, gabled and flat, and (less commonly) hipped roofs, clad in red clay tiles. Arched openings, whether for windows, doors, or gates, are a textbook feature. Secondary materials—including wood, wrought iron, and polychromatic tile—provide decorative accents. Windows are generally wood framed or metal, with molded wood surrounds or lintels.

Typical Character-Defining Features:

- Stucco-clad walls (usually smooth finish); occasionally might have brick or cast stone
- Asymmetrical design
- Use of towers, turrets, or cupolas
- Low-pitched gabled or hipped roof covered in red clay tiles or flat roof with parapet wall
- Shallow eaves or deeper eaves, lined with exposed carved wood brackets
- Arched openings for windows, doors, and use of arcades
- Secondary materials can include wrought iron, polychromatic tile, and cast stone
- Exterior patios and courtyards



Figure 178. Post-earthquake Mission Revival Style: Reseda Elementary School (1936). Source: Heumann & Associates and SAIC for LAUSD.



Figure 179. Late example of Spanish Colonial Revival: Verdugo Hills High School (1948). Source: Heumann & Associates and SAIC for LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

RENAISSANCE REVIVAL STYLE

In the late nineteenth and early twentieth centuries, the Renaissance Revival style began as a fairly literal translation of sixteenth-century Italian *palazzi* into two- and three-story buildings. The style evolved into one of the most popular of the 1920s, in particular for midrise office buildings. McKim, Mead, and White designed some of the United States' most elegant expressions of the revival during its earlier years. During the 1920s, local architects such as Walker and Eisen and John and Donald Parkinson designed many of Los Angeles's best examples.

Renaissance Revival buildings in Southern California are generally sheathed in brick or stucco. Facades are symmetrical or highly regular and divided into bays by the fenestration pattern or by piers, which are often treated as columns with bases and capitals. Variations in surface finishes, fenestration, and level of detail visually distinguish each section, creating a horizontal emphasis that is reinforced by prominent belt courses. A cornice, set above a frieze and/or architrave, traditionally tops a Renaissance Revival building. Windows on top stories are often distinguished from lower stories by different surrounds and configuration.



Figure 180. El Sereno Middle School, originally Woodrow Wilson High School (1937). Source: Heumann & Associates and SAIC for LAUSD.

Typical Character-Defining Features:

- Rectangular massing
- Brick, stucco, and concrete, with trim of terra cotta or cast stone and bases of granite or masonry
- Horizontal emphasis; differentiated treatment of stories
- Symmetry and regularity
- Brick, stucco, or concrete exterior, often scored to resemble masonry
- Gabled and/or hipped roof, often sheathed in clay tiles
- Linear fenestration pattern
- Belt courses and cornices
- Classical detailing
- Cast stone or terra cotta architectural ornament



Figure 181. University High School (1924). A spring located on the school campus is registered as California Historical Landmark No. 522; the spring marks the location of three significant events: where the Portola Expedition camped in 1769, Father Junipero Serra gave Mass in 1770, and where the City of Santa Monica once obtained its water supply. Source: Heumann & Associates and SAIC for LAUSD.

GOTHIC REVIVAL / COLLEGIATE GOTHIC

Popularized by writers and art critics such as John Ruskin (1819–1900), the English Gothic Revival movement looked back to and idealized the preindustrial Medieval era as a more pure and moral golden age, for society as well as for architecture. First popularized for religious buildings and for school buildings—the “Collegiate Gothic”—the style began appearing in the Los Angeles area in the late 1800s. Few buildings were constructed locally in this style, and even fewer remain.

Most extant Collegiate Gothic schools in Los Angeles were constructed during the height of the period-revival era. In the 1930s, in school design, the style fell out of favor as more up-to-date architectural idioms began emerging. The 1933 Long Beach earthquake, and then the 1934 Field Act, hastened the need for widespread school repairs and new construction, which accelerated the stylistic shift during this period.

Gothic Revival schools share the same emphasis on verticality that characterizes other applications of the style. The emphasis on the vertical is often expressed through the use of uninterrupted piers or attached ornament, which extend from the ground to the roof. The style also makes liberal use of mullions, towers, spires, and pinnacles. Windows are arranged in vertical channels of glass, sometimes topped with pointed arches. Brick and concrete were the materials of choice, often accented by cast stone.

Typical Character-Defining Features:

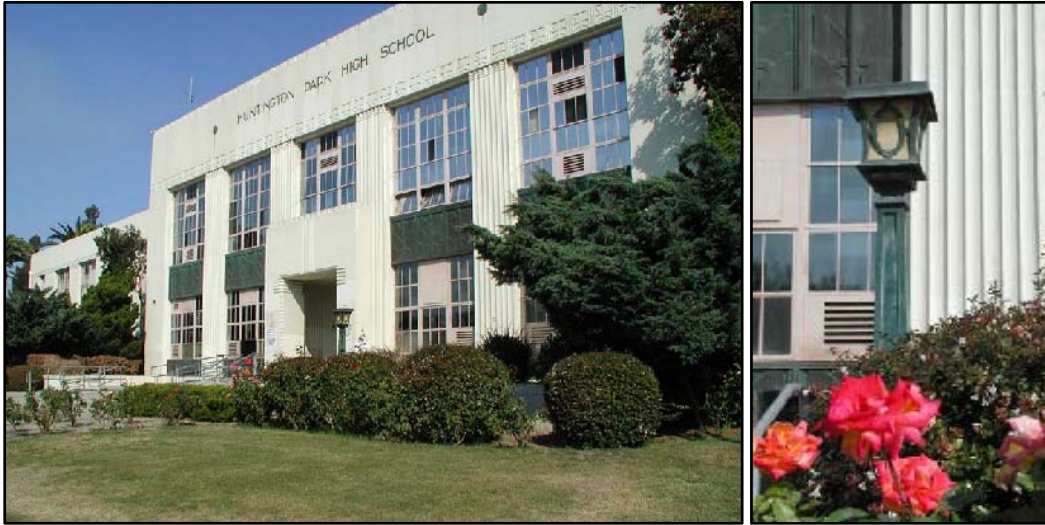
- Concrete or brick exterior
- Emphasis on the vertical axis
- Attenuated windows and openings
- Use of full-length columns or pilasters
- Steeply gabled roof
- Liberal use of cast stone or terra cotta ornament and sculptural detailing
- Stylized openings, with Tudor, pointed, or round arches
- Windows and doorways outlined with archivolts and topped with decorative crowns
- Windows with mullions



Figure 182. John Marshall High School, George Lindsey, architect (1931). Source: Heumann & Associates and SAIC for LAUSD.

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HISTORIC CONTEXT STATEMENT, 1870 to 1969



Figures 183 and 184. Huntington Park High School, Administration Building (1936). Source: Heumann & Associates and SAIC for LAUSD.

ART DECO

As architects and designers began exploring alternatives to historic revival styles, one of the earliest modern alternatives was Art Deco. The term grew out of the 1925 exposition in Paris showcasing the “nouveau,” or new directions in design and decorative arts, at the *Le Musee des Arts Decoratifs*.

The idiom is highly decorative but rejects copying or adapting historical revival styles. Instead, ornamentation draws on geometric and foliate patterns and motifs, such as zigzags and chevrons, light, and color. Primarily in use between the 1920s and 1930s, the style was used most often in commercial, industrial, and institutional buildings.

Typical Character-Defining Features:

- Emphasis on verticality through building massing, applied exterior features, and ornament
- Use of stylized, geometric motifs and decorative features, such as zigzags and chevrons
- Generally features smooth stucco- or concrete-clad wall surfaces
- Often features towers or other elements projecting beyond the roofline
- Often features steel-frame casement and fixed windows



Figure 185. PWA Moderne with Art Deco influence: Florence Nightingale Middle School, John C. Austin & Frederick M. Ashley, architects (1937-1939). Source: Heumann & Associates and SAIC for LAUSD.



Figure 186. Streamline Moderne: Thomas Jefferson High School, Stiles O. Clements (1933). Source: LAUSD.

STREAMLINE MODERNE | MODERNE

The Streamline Moderne became a popular style during the Great Depression and World War II period. Its clean lines and minimalist ornament both celebrated the modern machine-age and signaled the period of austerity triggered by the Great Depression. Compared with its more ornamental predecessor, the Art Deco style, Streamline Moderne is more restrained in its ornamental program and emphasizes the horizontal rather than the vertical. This is achieved through incorporating bands of windows, decorative raised or grooved horizontal lines, flat canopies with banded fascia, and narrow coping at the roofline. Other characteristics include smooth wall surfaces, usually clad in stucco, glass block or porthole windows, and rounded corners. Reference to aerodynamic design is a signature of the style.

Compared with the Streamline Moderne, Moderne buildings also tend to be horizontal in emphasis but more clean-lined and rectilinear in their massing and detailing. Moderne designs are generally characterized by flat roofs, smooth stucco exteriors, and use of metal casement windows that often meet at the corners of the building.

Typical Character-Defining Features:

- Horizontal emphasis, massing, and accents, such as moldings and continuous sill courses
- Smooth stucco or concrete exterior finish
- Curvilinear/rounded wall surfaces, corners, and features
- Recessed windows with no surrounds
- Flat or nearly flat roof



Figure 187. Moderne: Venice High School, Austin & Ashley, architects (1935-1937). Source: Heumann & Associates and SAIC for LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

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Figure 188. Hollenbeck Middle School, Alfred P. Rosenheim, architect (1936). Source: Heumann & Associates and SAIC for LAUSD.



Figure 189. Hollywood Union High School, Marsh, Smith & Powell (1934-1935). Source: Heumann & Associates and SAIC for LAUSD.

PWA MODERNE

Created by the National Industrial Recovery Act, the Public Works Administration (PWA) was founded within a few months of the March 1933 Long Beach Earthquake. Following widespread damage to Los Angeles public schools in the wake of the earthquake, much school reconstruction work was funded by the PWA. Consequently, a substantial number of Los Angeles public schools either built or remodeled during this time exhibit some degree of PWA Moderne styling. Also referred to as “Stripped Classicism,” the PWA Moderne often incorporates elements of a number of styles, including Classical Revival, Spanish Colonial Revival, Art Deco, and Streamline Moderne.

Compared with the Streamline Moderne, the PWA Moderne was more formal and symmetrical in its overall design, with less emphasis on curvilinear shapes and horizontality. This style is found throughout the United States, particularly for institutional buildings funded through the PWA. Although the PWA program was terminated in 1943, buildings continued to display these stylistic features.

Typical Character-Defining Features:

- Emphasis on the vertical axis
- Symmetrical, formal design composition and massing
- Smooth wall surfaces, generally exhibiting stucco, concrete, and/or polished stone (rarely includes brick exterior elements)
- Usually displays a flat roof
- Piers, often fluted or reeded, separating recessed window channels
- Incorporation of shallow relief panels and interior murals



Figure 190. PWA Moderne meets Spanish Colonial Revival style: Canoga Park High School Auditorium (1939). Source: Heumann & Associates and SAIC for LAUSD.



Figures 191 and 192. Emerson Middle School, Richard Neutra, architect (1937-1940). Source: LAUSD Emerson Middle School Pre-Planning Survey.

EARLY MODERNISM | INTERNATIONAL STYLE (PRE-1945)

This style coincides with the emergence of modern architectural design and culture in Los Angeles, at a time when modernism was still in an experimental stage and carried out by a relatively small group of architects and designers. Although many of these same ideas informed postwar modern styles, this era was unique and experimental. The City of Los Angeles Office of Historic Resources describes this stylistic theme as follows:

With precedents in Europe dating to the first decades of the twentieth century, Los Angeles was one of the first American centers of the International Style due in large part to the import of ideas by Viennese expatriates Rudolph Schindler and Richard Neutra. Although never catching on as a widely-accepted style for domestic architecture, the International Style was embraced and regionalized by a number of Los Angeles architects and designers who established a formidable local Modernist tradition.

Rudolph Schindler came to Los Angeles from Austria in 1920 to oversee construction on the Barnsdall House (Hollyhock House) for the office of Frank Lloyd Wright. Fellow Austrian Richard Neutra came to Los Angeles at Schindler's urging in 1925. Schindler, Lloyd Wright and Neutra and the architects of the so-called "Second Generation" architects continued to design buildings in Los Angeles in the postwar years; however, by this time the work of these architects and their protégés took on an expression of a more regional modernism (see Mid-Century Modernism).¹⁷⁹

Typical Character-Defining Features:

- Horizontal emphasis
- Use of simple, geometric volumes
- Smooth, unadorned wall surfaces, often sheathed in stucco or concrete
- Flat or nearly flat roof, often with cantilevered eaves
- Use of corner and casement windows, often with steel frames
- Windows generally set flush with the wall plane, with minimal trim or surrounds
- Continuous bands of windows emphasize the horizontal axis

LOS ANGELES UNIFIED SCHOOL DISTRICT

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Figures 193 and 194. On left, Fernangeles Elementary School (1954), Sun Valley. On right, Parmlee Avenue Elementary School (1962), southeastern Los Angeles. Source: Sapphos Environmental, Inc., 2014.

MID-CENTURY MODERNISM / REGIONAL MODERNISM (POST-1945)

Mid-Century Modernism, or Regional Modernism, represents a middle ground between the formal, machine-age aesthetic of the International Style and a regional idiom reflecting local precedent and identity. In the postwar period through the 1960s, as practiced in Southern California, Mid-Century Modernism took its cues from the region's first-generation modernist architects such as Richard Neutra, Rudolph Schindler, Gregory Ain, Frank Lloyd Wright, and Harwell Hamilton Harris. In the postwar period, second-generation practitioners such as Raphael Soriano, Whitney Smith, and A. Quincy Jones, among many others, established Los Angeles as a center for innovative architectural design and culture.

Mid-Century Modernism is characterized by an honest expression of structure and function, with little applied ornament. Aesthetic effect is achieved through an asymmetrical but balanced, rhythmic design composition, often expressed in modular post-and-beam construction. Whether wood or steel, post-and-beam construction allowed for open floor plans, ease of expansion, and generous expanses of glazing to heighten indoor-outdoor integration. Infill panels of wood or glass are common, with glazing often extending to the gable. Buildings are generally one to two-stories, with an emphasis on simple, geometric forms. Capped with low-pitched gabled or flat roofs, a Mid-Century Modern building often displays wide eaves and cantilevered canopies, supported on spider-leg or post supports. Sheathing materials vary, with wood, stucco, brick and stone, or steel-framing and glass. Windows are generally flush-mounted, with metal frames.



Figure 195. Pacoima Middle School, Administrative Building (1955), Wilmington. Source: LAUSD Pacoima Middle School Pre-Planning Survey, 2010.



Figures 196 and 197. Grover Cleveland High School, Administrative Building (left) and typical classroom wing (right), Matcham & Granger and Associates (1959), Reseda. Source: Sapphos Environmental, Inc., 2013.

This style was seen in postwar institutional and commercial buildings, as well as residences, from 1945 until circa 1975, when Title 24 restrictions on the use of glass curtailed the expansive glazing that characterizes the style.

Typical Character-Defining Features:

- Horizontal design composition and massing; generally one to two stories
- Simple, geometric volumes
- Flat or shed roof, often with wide, cantilevered overhangs
- Exterior materials include stucco, brick, or concrete
- Modular design and planning
- Aesthetic qualities derive from use of simply treated materials and excellent craftsmanship
- Direct expression of structural systems, often in wood or steel post-and-beam
- Lack of historicizing ornament
- Generous expanses of fenestration, including bands of grouped multi-light windows
- Extensive use of sheltered exterior corridors, with flat or slightly sloped roofs supported by posts, piers, or pipe columns

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969



Figure 198. Orville Wright Middle School, Cafeteria, Spaulding & Rex (1951). Source: LAUSD Wright Middle School Pre-Planning Survey, 2012.



Figure 199. Palisades Charter High School, Wilson & Associates (1961). Source: LAUSD Palisades Charter High School Pre-Planning Survey, 2012.

Mid-Century Modernism | Expressionistic/Organic Subtype:

- Combines sculptural forms with basic geometric volumes
- Curved, sweeping wall surfaces
- Expressionistic roof forms, including butterfly, folded plate or barrel vault roof forms

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

ILLUSTRATIONS OF LAUSD ARCHITECTURAL STYLES

COLLEGIATE GOTHIC



Figures 200 and 201. John Marshall High School, George Lindsey (1931). Source: Heumann & Associates and SAIC for LAUSD.

TUDOR REVIVAL



Figure 202. Gulf Avenue Elementary School, Henry Harwood Hewitt & Norman Miller (1926). Source: Heumann & Associates and SAIC for LAUSD.



Figure 203. John Muir Middle School, John C. Austin (1922). Source: Heumann & Associates and SAIC for LAUSD.

MEDITERRANEAN REVIVAL



Figures 204 and 205. Mediterranean Revival: Hamasaki Elementary School, originally Riggin School (1927). Source: Heumann & Associates and SAIC for LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

RENAISSANCE REVIVAL STYLE



Figure 206. Ritter Elementary School (1932). Source: Heumann & Associates and SAIC for LAUSD.



Figure 207. University High School (circa 1922). Source: Heumann & Associates and SAIC, LAUSD.



Figure 208. Italian Renaissance Revival: South Gate High School, George Lindsey & Erwood Elden (1930). Source: Heumann & Associates and SAIC for LAUSD.



Figure 209. Renaissance-inspired Walter Reed Middle School, originally North Hollywood Junior High School, John Austin (1939). Source: Heumann & Assoc. and SAIC for LAUSD.



Figures 210 and 211. John Burroughs Middle School (1922). Source: Heumann & Associates and SAIC for LAUSD.

SPANISH COLONIAL REVIVAL



Figure 212. Eagle Rock Elementary School (circa 1919). Source: Heumann & Associates and SAIC for LAUSD.



Figure 213. North Hollywood High School, Hunt & Chambers (1926). Source: Heumann & Associates and SAIC for LAUSD.



Figure 214. Aldama Elementary School, Charles Plummer (1924). Source: Heumann & Associates and SAIC for LAUSD.



Figure 215. Pacific Palisades Elementary School, Albert Nibecker (1930). Source: Heumann & Associates and SAIC for LAUSD.



Figure 216. Spanish Eclectic: Horace Mann Middle School (1926). Source: Heumann & Associates and SAIC for LAUSD.



Figure 217. Canoga Park Elementary School, Sumner Spaulding (1935). Source: Heumann & Associates and SAIC for LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

ARCHITECTS

Since the early years of the district, the school buildings and campuses of LAUSD have been designed by some of the region's most prominent master architects region as well as the district's own architectural department. The following architects and firms were responsible for numerous designs of extant buildings throughout the district, since the early twentieth century:

- Thornton Abell
- Ain, Johnson & Day (Gregory Ain, Joseph Johnson, and Alfred Day)
- Robert Evans Alexander
- Allison & Allison (David Clark Allison and James Edward Allison)
- John C. Austin
- Austin and Ashley (John C. Austin and Frederic Ashley)
- Austin, Field & Fry (John C. Austin, Robert Field, Jr., Charles Eugene Fry)
- Edwin Bergstrom
- Daniel, Mann, Johnson & Mendenhall, DMJM (Phillip Daniel, Arthur Mann, Kenneth Johnson, Irvan Mendenhall)
- Stiles O. Clements
- Roland Coate
- Edelman and Zimmerman
- Sidney Eisenshtat
- Henry L. Gogerty
- Heitschmidt & Thompson (Earl Heitschmidt and Whiting Thompson)
- Frank Hudson
- Hudson & Munsell
- Stewart S. Granger
- Myron Hunt
- Hunt & Chambers
- Hunt & Burns
- Gordon B. Kaufmann
- George Lindsey
- Marsh, Smith, & Powell (Norman Marsh, David Smith, and Herbert James Powell)
- A. C. Martin
- Matcham & Granger (Charles O. Matcham Sr. and Stewart S. Granger)
- Alfred S. Nibecker
- Richard Neutra
- C.E. Noerenberg and Johnson
- Parkinson and Parkinson
- Charles Plummer
- Alfred Rosenheim
- Sumner Spaulding
- Spaulding & Rex (Sumner Spaulding and John Rex)
- William Stockwell
- Whiting Thompson
- Walker and Eisen
- Adrian Wilson & Associates

SECTION V THEMES OF SIGNIFICANCE

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | FOUNDING YEARS

Property Type: Institutional/Educational
Property Subtypes: Wood-Framed School House
Period of Significance: 1872 to 1894
Area of Significance: Education
Geographic Location: Citywide (rare)
Area of Significance: A/1

Eligibility Standards:

- Is a rare example of an educational facility from the founding years of the Los Angeles City School District

Character-Defining Features:

- Retains most of the essential physical features from the period of significance
- Wood siding
- Bell tower; some Victorian-era ornamental detailing
- One-story massing
- Wood-framed, double-hung windows

Integrity Considerations:

- Should retain integrity of Design, Feeling, and Association from the period of significance
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable alterations



Figure 218. Old Vernon Avenue School, built in 1876. Source: LAUSD.

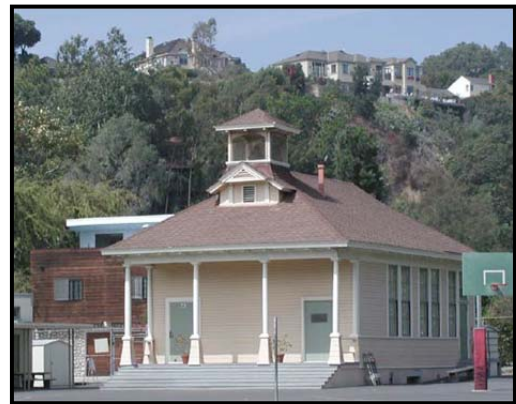


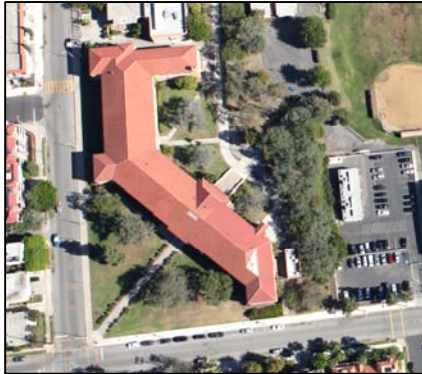
Figure 219. Old Canyon School, built in 1894. Source: LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

THEME: LAUSD | PRE-1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1920-1933

Pictorial Overview



Figures 220 and 221. The expansive plan and Renaissance Revival-style of University High School (1924). Designed open spaces have been retained for nearly a century. Source: LAUSD University High School Pre-Planning Survey, 2011.



Figures 222 and 223. Vernon City Elementary School (1929), with courtyards and Spanish Colonial Revival arcades placing school corridors outside. Source: LAUSD Vernon City Elementary School Pre-Planning Survey, 2011.



Figure 224. One-story scale and E-shaped plan of Fishburn Avenue Elementary School (1926), in 1927 aerial photo. Source: LAPL Photo Collection.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | PRE-1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1910-1933

Property Type:	Institutional/Educational
Property Subtypes:	Elementary, Junior High, and High School Buildings and Campuses
Period of Significance:	1910 to 1933
Area of Significance:	Education
Geographic Location:	Citywide
Area of Significance:	A/1

Eligibility Standards:

- Embodies LAUSD school planning and design ideals and principles of the era
- One of few remaining schools from the pre-1933 Long Beach earthquake era that was not substantially altered or remodeled
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- Articulated buildings plans, facilitating the creation of outdoor spaces (often T-shaped, E-shaped, U-shaped, and H-shaped plans)
- Generally low massing, usually one to two stories (with two to three stories more common for middle and senior high schools)
- Includes designed outdoor spaces, such as courtyards and patios, adjacent to classroom wings
- Exteriors usually lined with rows of grouped windows, including wood-framed multilight windows; expanses of windows often mark the location of classrooms
- Designed in popular period-revival styles of the era (including Spanish Colonial Revival, Renaissance Revival, Mediterranean Revival, and Collegiate Gothic)
- Often designed by prominent architects of the era

Character-Defining Features | Campus/District:

- Emphasis on a more spread-out site plan, with designed outdoor spaces
- More varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside)
- Might include an elaborate administration building, usually the focal point of the campus, as well as classroom wings, auditoriums, gymnasiums, and outdoor recreation areas
- Middle or senior high schools might include a gymnasium designed in the style of the campus overall

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Integrity Considerations:

- Most pre-1933 schools were substantially remodeled following the Long Beach earthquake
- Designed outdoor spaces, such as courtyards and patios, should be intact in use, if not with landscape design and hardscaping; development pressures over the years often resulted in these open spaces being in-filled with new construction; overall sense of relationship of building to designed outdoor spaces should be intact
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance
- Intact campus groupings from a single period of time are not common
- Some materials and features may have been removed or altered
- Modern lighting and fencing of site acceptable

Comments:

Schools from this period generally include additional buildings and structures added after the period of significance (in particular after World War II), which may be non-contributing.

Eligible properties under this theme may be a single building (generally the Administration Building, in combination with a classroom wings) or a grouping (campus) of buildings constructed during the period of significance.

Buildings and campuses exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type, period, region, or method of construction, an excellent example of the work of a master architect, or for high artistic values.



Figure 225. Marshall Senior High School (1931). The school has expanded over the years but also retains many of its designed open spaces and courtyards. Source: LAUSD Marshall Senior High School Pre-Planning Survey, 2010.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

**THEME: LAUSD | POST-1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS,
1933-1945**

Property Type:	Institutional/Educational
Property Subtypes:	Elementary, Junior High, and High School Buildings and Campuses
Period of Significance:	1933 to 1945
Area of Significance:	Education
Geographic Location:	Citywide
Area of Significance:	A/1

Eligibility Standards:

- Exemplifies post-Long Beach earthquake school planning and design concepts of the period, including requirements under the 1934 Field Act
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools
- Reinforced concrete, steel- or wood-frame construction
- Classroom wings designed for easy access and views to outdoors—with variations including L-, H-, T-shaped building plans
- Generous expanses of windows, including steel- and wood-framed multilight windows, awning and hopper casements, clerestories, and large-pane fixed windows; window groupings often mark the location of classrooms
- Stylistically more streamlined and less ornamental than 1920s period-revival styles
- Emphasis on “traditional Southern Californian” styles, such as Spanish Colonial and Mission Revival
- Styles can also include PWA Streamline Moderne, Art Deco, Late Moderne, and proto-modern styles
- May have been partially or fully funded through Works Progress Administration (WPA), 1935 to 1943
- WPA projects may include significant interior artwork such as murals, paintings and sculpture
- May have been designed by a prominent architect of the period

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Character-Defining Features | Campus/District:

- Unified site plan consisting of buildings and structures designed and sited according to their use
- Use of designed outdoor and landscaped spaces, for outdoor study, recreation and dining
- Often displays connecting sheltered corridors throughout campus
- Emphasis on a more expansive site plan
- Varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside)
- Might include an elaborate administration building, located near the campus entrance; administration buildings usually serve as the focal point of the campus
- Campus often composed of groupings of classroom wings, auditoriums, gymnasiums, cafeterias, and outdoor recreation and dining areas
- Middle or senior high schools might include a gymnasium designed in the style of the campus overall

Integrity Considerations:

- Should retain most of the essential physical features from the period of significance
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Schools from this period generally include buildings constructed after the period of significance, in particular post-World War II buildings, which may be non-contributing
- Eligible properties under this theme may be a single building, if it exemplifies the design ideals of the era, or a grouping (campus) of buildings constructed during the period of significance
- Intact campus groupings from the pre-1945 era are not common
- Many pre-1933 schools were substantially remodeled following the Long Beach earthquake—may retain a 1920s plan but with 1930s stylistic detailing.
- Pre-1933 schools rehabilitated post-1933 might exhibit added seismic supports of steel columns, beams, or diagonal bracing; original masonry might be covered by concrete/stucco sheathing
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance

Comments: Buildings exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | EARLY EXPERIMENTS IN THE MODERN, FUNCTIONALIST SCHOOL PLANT, 1933–1945

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1933 to 1945
Area of Significance:	Education
Geographic Location:	Citywide; rare
Area of Significance:	A/1

Eligibility Standards:

- Clearly expresses the experimental ideas emerging during this period for the modern, functionalist school plant
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, finger-like wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools
- Usually reinforced concrete, steel- or wood-frame construction, clad in cement/stucco
- Classrooms are often single- or double-loaded finger-like wings, arranged along a central axis or semicircle
- Classrooms open directly onto patios/play areas through glass doors or movable walls
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms
- Windows are plentiful and include steel- and wood-framed multilight windows, in double-hung sashes, awning and hopper casements, clerestories, and fixed panes
- Displays an informal, nonmonumental scale and spare ornamental program
- Stylistically modern; might display influence of Late Moderne or PWA Streamline Moderne
- May have been partially or fully funded through WPA, 1935 to 1943; WPA projects may include significant interior artwork such as murals, paintings and sculpture
- May have been designed by a prominent architect of the period

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Character-Defining Features | Campus/District:

- A unified, nonmonumental, nonhierarchical site plan
- Displays inventive site plan incorporating buildings, landscaped courtyards, and circulation corridors into a unified campus design
- Swaths of landscaped patios and terraces adjacent to classroom wings
- Designed outdoor spaces, including patios, courtyards
- Use of outdoor corridors, with simple canopy supports and posts or *pilotis*, form links between classrooms and other buildings

Integrity Considerations:

- School expansion and new construction over the years, in particular in the postwar period, might have resulted in the addition of in-fill buildings and structures in areas that were originally designed open spaces. Such new additions should not interfere with or serve as a visual impairment to the designed connections between buildings, in particular classroom wings, and adjacent outdoor patios and spaces.
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance

Comments: Buildings exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN, FUNCTIONALIST SCHOOL PLANT, 1945–1969

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1945 to 1969
Area of Significance:	Education
Geographic Location:	Citywide; with concentrations in the San Fernando Valley and west Los Angeles
Area of Significance:	A/1

Eligibility Standards:

- Clearly embodies the characteristics of a postwar modern functionalist school campus
- Displays a unified, functional site design, with buildings extending across the site and oriented in relation to outdoor spaces (courtyards, patios, outdoor play areas)
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, finger-like wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- Building plans and site design clearly express their function; classroom wings often exhibit one-story “finger-like” wings, arranged on an axis
- Easily identifiable indoor-outdoor spaces, connections to classrooms through the incorporation of patios, courtyards, and outdoor canopied corridors
- One-story massing, particularly for elementary schools; up to two to three stories for junior and high schools
- Building types and plans expressive of postwar ideals in school design; these can include (1) finger-plan schools (usually in 1940s through 1950s); (2) cluster-plan schools (beginning in 1950s); and (3) variations and combinations of these typologies clearly expressive of the ideals for informality, indoor-outdoor connections, and zoned planning for the site
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Character-Defining Features | Campus/District:

- Unified campus design includes most or all of the following attributes: lack of formality and monumentality; low massing (usually one stories for classrooms and up to two stories for auditoriums/multipurpose rooms); strong geometric ordering of buildings and outdoor spaces; decentralized, pavilion-like layout; rational, function-driven site design; buildings extend across the site; buildings are oriented to outdoor spaces (courtyards, patios, outdoor areas), purposeful indoor-outdoor integration
- Automobile traffic/drop-off areas separated from campus; linked to interior via extended canopied corridors
- Buildings often turn inward, toward green spaces and courtyards, lawns
- Outdoor corridors, sheltered beneath simple canopies, forming links between the buildings of the campus
- Classrooms often consist of a series of axial, modular units
- An informal, domestic scale for the buildings and campus might be especially evident in elementary schools
- Swaths of patios, terraces, and plantings adjacent to and alternating with buildings
- Generous expanses of windows, including steel- and wood-framed multilight windows, in awning and hopper casements, clerestories, and fixed panes
- Flat roof or broken-plane roof often used for lighting and acoustical issues
- Modular design, with a rhythmic, asymmetrical but balanced composition
- Usually displays a modern design idiom, usually either regional modernist (with use of native materials such as stone, brick, and wood siding and/or framing), International Style modernist, or, by the early 1960s, Late Modern (more expressive and sculptural)
- Some examples might include some degree of historicist detailing or styles popular in the postwar period (such as American Colonial Revival); these are less common than modernist examples
- May have been designed by a prominent architect of the period
- Often associated with post–World War II suburbanization and growth near major employment centers beyond the city periphery (such as the San Fernando Valley and southwest Los Angeles)
- Often built in residential neighborhoods on large expanses of land, with swaths of land devoted to landscape design and playing fields (in particular for high school campuses)

Integrity Considerations:

- Retains most of the essential physical features from the period of significance
- School expansion and new construction over the years, in particular in the postwar period, might have resulted in the addition of in-fill buildings and structures in areas that were originally designed open spaces. Such new additions should not interfere with or serve as a visual impairment to the designed connections between buildings, in particular classroom wings, and adjacent outdoor patios and spaces.
- Many postwar schools were designed to be easily expandable as enrollment increased; the original site design and building types and plans should be readily discernible. If additional wings were added or the campus extended, the additions should be compatible with and visually subordinate to the original.
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Should retain integrity of Setting, Materials, Design, Workmanship, Feeling, and Association from its period of significance
- Addition of portable or permanent buildings after the period of significance acceptable as long as original campus design is intact

Comments: This theme would most often apply to a campus evaluated as a historic district. Individual buildings and/or campuses exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD AND THE CIVIL RIGHTS MOVEMENT, 1954–1980

Property Type: Institutional/Educational
Property Subtypes: Elementary Schools, Junior High Schools, and High Schools
Period of Significance: 1954 to 1980
Area of Significance: Education/Ethnic Heritage
Geographic Location: Citywide
Area of Significance: A/1 and/or B/2

Eligibility Standards:

- Was constructed during the theme of significance
- Was the site of significant integration initiatives, challenges, or activities related to the Civil Rights Movement and school integration
- Directly reflects the movement for equal access to schools and/or to employment opportunities in LAUSD schools
- Has a well-established, long-term association with a figure who was significant in the Civil Rights Movement and school integration (eligibility under B/2)

Character-Defining Features:

- Retains most of the associative and character-defining features from the period of significance

Integrity Considerations:

- Retains integrity of Location, Design, Setting, Feeling, Association
- Some materials may have been removed or altered
- If there are multiple buildings on campus constructed during the period of significance, these should be evaluated as a potential historic district

SECTION VI CONCLUSION | RECOMMENDATIONS

LAUSD is the second largest public school system in the United States and encompasses nearly 800 campuses distributed across more than 700 miles. Since its founding in 1872, the district has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. These properties reflect more than a century of social, architectural, and technological advances, as well as ongoing educational and curricular reform. Extant properties range from a few late-nineteenth-century, wood-framed schoolhouses to mid-twentieth-century superblock campuses exemplary of modernist architectural design.

This Historic Context Statement represents a first step in creating a framework for context-driven evaluations of educational facilities in Los Angeles (and beyond). As LAUSD begins planning for campus-wide redevelopment and modernization under Measure Q, to be launched in 2014, this study provides a guide for conducting evaluations of LAUSD's many historically significant buildings and campuses.

Through research conducted for this study, four distinct periods emerged: (1) Founding Years, 1870s through 1909; (2) Progressive Education Movement: Standardization and Expansion, 1910 to 1933; (3) Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1944; and (4) Educating the Baby Boom: Postwar Expansion and the Modern, Functionalist School Plant, 1945 to 1969. Specific themes of significance associated with each era were prepared for this study, along with eligibility standards, character-defining features, and integrity thresholds for each.

Given the project need and parameters, this study focused on the potential eligibility of school buildings and campuses under Criteria A/1, as outstanding examples of LAUSD design ideals and principles, according to the era under consideration. Because the postwar era largely fell outside the scope of 2002 survey work, and postwar schools will be the focus of much of the modernization work for LAUSD in the coming years, the postwar era was explored in detail in the present study.

In addition, by identifying the character-defining features that lend campuses historic significance, this study also establishes a framework for the development of district-wide design guidelines. The guidelines are being prepared by Sapphos Environmental, Inc. to be included in environmental compliance documentation currently being prepared by LAUSD.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Recommendations | Areas for Further Research

Additional research on areas and topics beyond the current scope would further broaden the framework for evaluating significant events, people, and the architectural legacy of LAUSD. Recommendations related to the Historic Context Statement and historic resources survey are as follows:

1. Expand the LAUSD Historic Context Statement and Historic Resources Survey to include the period to 1980

Pursuant to Measure Q, district-wide modernization and redevelopment will unfold gradually, over many years. Broadening the LAUSD Historic Context Statement and survey to consider all schools constructed in the past 35 years (rather than 45 years) would allow the district to take proactive steps to identify historically significant campuses (and therefore historic resources under CEQA) prior to redevelopment planning and work. This would also bring the LAUSD Comprehensive Historic Resources Survey up to date with the City of Los Angeles Office of Historic Resources citywide survey, SurveyLA.

2. Conduct additional archival research to expand property eligibility under additional criteria

In the current scope, campus-specific work included research on events, patterns of development, and significant people associated with the schools included in the accompanying survey. However, project limitations precluded extensive research on LAUSD's history that might result in eligibility under Criteria A/1 (such as LAUSD and the Civil Rights Movement) and Criteria B/2 (for an association with significant figures in the history of public schools in Los Angeles). These areas represent excellent areas for further study. (The context of the Civil Rights Movement and Los Angeles schools was addressed, however, in the National Register of Historic Places Multiple Property Documentation form for African-Americans in Los Angeles.¹⁸⁰)

3. Expand study of school plant property types and subtypes

As a general framework, this treated senior high, middle, and elementary schools, as well as other LAUSD educational facilities, with a broad brush, as a single property type. Noteworthy distinctions, generally in scale and massing, were noted throughout the context. Should subsequent survey work reveal significant distinctions among educational property types, these differences could be incorporated into an updated Historic Context Statement.

4. Update and expand the LAUSD Historic Resources Survey

Sapphos Environmental, Inc. also recommends that LAUSD take proactive steps to update its comprehensive historic resources survey, in order to consider all as-yet unevaluated LAUSD assets. With planning for district-wide modernization work under way, it will be critical that the LAUSD survey be comprehensively updated.

The survey could be initially broadened to include all post-1945 school buildings and campuses that have not yet been subject to context-driven evaluation.

According to the *Los Angeles Unified School District History of Schools, 1855 to 1972*, this includes roughly 175 campuses constructed between 1955 and 1969, as well as approximately 125 campuses constructed between 1945 and 1954.¹⁸¹ (The current scope with Sapphos Environmental, Inc. covers 55 campuses.)

A comprehensive survey update would help streamline and guide district-wide redevelopment plans and help LAUSD in its continuing stewardship of its many historically significant school buildings and campuses.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

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ENDNOTES

1. Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (1999).
2. Local criteria were not included in this study. Under the provisions of California State Government Code, Section 53094, the properties of California school districts, including LAUSD, are statutorily exempt from most provisions of local ordinances, including landmark designation. California State Government Code, Section 53094 permits "the governing board of a school district, by vote of two-thirds of its members . . . [to] render a city or county zoning ordinance inapplicable to a proposed use of property by such school district . . ." The legislative history of Section 53094 indicates that "the Legislature deliberately accorded different treatment to school districts than to other local agencies because it was well aware that school construction was subject to almost complete control by the state. . . . The Legislature accordingly provided in section 53094 that school districts, as opposed to other local agencies, should retain the right to exempt themselves from local zoning ordinances (*Santa Clara, supra*, 22 Cal.App.3d at p. 158 fn. 3.)," Court of Appeal, State of California, Second Appellate District, Division 7, *Los Angeles Unified School District, Petitioner and Appellant, v. City of Maywood, et al.*, Respondents and Defendants, Nos. B238629, B238630, Los Angeles Superior Court, filed 13 February 2013.
3. California Office of Historic Preservation, "California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register)," *Technical Assistance Series* No. 6. (Sacramento, CA, 14 March 2006). Available at: http://ohp.parks.ca.gov/pages/1056/files/06CalReg&NatReg_090606.pdf
4. Grimes, Teresa, "Historic Resources Associated with African Americans in Los Angeles, Los Angeles County, California," *National Register of Historic Places* (Washington, DC: U.S. Department of the Interior, National Park Service, 31 December 2008).
5. For additional background on the pre-1870s context of education in Los Angeles and the administrative structure of the district, see Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002), 12.
6. Gibson, Charles D., *California School Buildings, 1960 to 1965* (Sacramento: California State Department of Education, 1966), 1.
7. Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009), 28.
8. Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.
9. Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956), 78.
10. *Ibid.*, 78.
11. *Ibid.*, 78.
12. Bhatia, "Modern Concept," 30.
13. Briggs, Warren Richard, *Modern American School Buildings* (New York: J. Wiley & Sons, 1906), 8.
14. Hille, *Modern Schools*, 13–14.
15. See, for example, Baker, Lindsay, "A History of School Design and Its Indoor Environmental Standards, 1900 to Today," PhD Dissertation (Berkeley: Department of Architecture, Center for the Built Environment, University of California, Berkeley, January 2012).

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HISTORIC CONTEXT STATEMENT, 1870 to 1969

16. Engelhardt, N.L., Jr., "Trends in School Architecture and Design," *Review of Educational Research* 12, no. 2 (April 1942): 171–77, at 174.
17. Baker, "A History of School Design," 4.
18. Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, 12.
19. Ibid.
20. Turner, Timothy G., "Rediscovering Los Angeles," *Los Angeles Times*, 13 April 1936.
21. "Course of Study: What Methods Best in Our Schools? All Citizens, Good and True, Appealed to by Committee of Ten," *Los Angeles Times*, 17 May 1900.
22. Eales, "A Brief, General History," 63.
23. Los Angeles Board of Education, *Annual Report, 1884-85*, cited in Eales, "A Brief, General History," 62–63.
24. Eales, "A Brief, General History," 63.
25. Ibid.
26. Population figures from Fogelson, Robert M., *The Fragmented Metropolis: Los Angeles, 1850-1903* (Berkeley: University of California Press, 1967), 78.
27. "Los Angeles Public Schools," *Los Angeles Times*, 1 January 1898.
28. "Los Angeles Public Schools: Schools and Teachers," *Los Angeles Times*, 1 January 1898.
29. Ibid.
30. Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91, at 564.
31. Holmes, William Henry, *School Organization and the Individual Child: A Book for School Executives and Teachers* (Worcester, MA: The Davis Press, 1912), 1.
32. Howell-Ardila, Deborah, "Writing Our Own Program: The USC Experiment in Modern Architectural Pedagogy," Master of Historic Preservation Thesis (Los Angeles, CA: USC School of Architecture, December 2010)
33. Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921), ix.
34. Ogata, "Building for Learning," 564, emphasis added.
35. Donovan, *School Architecture*.
36. Hille, *Modern Schools*, 14.
37. Caudill, William Wayne, *Toward Better School Design* (New York: FW Dodge Corporation, 1954), 16. Caudill himself was an early leader in the community of reform-minded school architects and designers. In 1946, California Department of Education official Charles Gibson informed Caudill that his book, *Space for Teaching*, was often used in Californian schools. Wrote Gibson to Caudill, "Your reputation as an authority on school design is already established in California. We use your Bulletin 'Space for Teaching' almost as a Bible in this state." Cited in Ogata, "Building for Learning," footnote 76.
38. Donovan, *School Architecture*, 96.
39. Hamlin, Alfred D. F., *Modern School Houses, Being a Series of Authoritative Articles on Planning, Sanitation, Heating and Ventilation*, vol. 1 (New York: The Swetland Publishing Company, 1910), 9. Cited in Baker, "A History of School Design," 6.
40. Hille, *Modern Schools*, p. 17.
41. Ibid.
42. Donovan, *School Architecture*, 48.
43. "In the Public Schools," *Los Angeles Times*, 3 December 1911. "In the Public Schools" was a weekly column with news and notes of interest from Southern Californian schools, published in the *Los Angeles Times* in the early 1910s.

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44. Ibid. In the Los Angeles City School District, Bettinger singled out the outdoor study programs at Micheltoreno Street School, Griffin Avenue, Loreto Street, and 21st Street Intermediate School. Said Bettinger, "Nearly always at these schools the passer-by will note a happy group of children studying and discussing their lessons out in the fresh air and sunshine."
45. Donovan, *School Architecture*, 9.
46. Ibid.
47. Ibid.
48. Ibid., 6.
49. Ibid., 7.
50. Hille, *Modern Schools*, 14.
51. "City's Schools Highly Praised: Pamphlet Draws Comparisons Showing San Francisco System Interior," *Los Angeles Times*, 17 May 1914.
52. Barnhill, O.H., "The Los Angeles School's Business Department," *The American School Board Journal* (February 1927): 51–52.
53. Marquis, Neeta, "A Tour through a Great Modern Plant and a Glimpse into the Stupendous Development of the Mechanical and Business Side of Our Educational System," *Los Angeles Times*, 29 January 1928.
54. This figure of 400 square miles is equivalent to 112 more square miles than the City itself at the time. This reflects the fact that school districts, as state, rather than city, agencies, pursuant to the Education Code of 1872, included both incorporated cities and adjacent unincorporated land, as well as portions of other incorporated Cities. See Science Applications International Corporation, *Preliminary Historic Resources Survey of the Los Angeles Unified School District*, prepared for the Los Angeles Unified School District, Facilities Services Division (Pasadena, CA: June 2002), 6.
55. Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002), 6.
56. Population statistics are drawn from Fogelson, *Fragmented Metropolis*, 78. School-related statistics are drawn from Eales, "A Brief, General History," 172.
57. Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (1933), 5.
58. Eales, "A Brief, General History," 164.
59. Ibid., 165.
60. Ibid., 158.
61. Ibid., 155.
62. Ibid.
63. Holy, T.C., "Needed Research in the Field of School Buildings and Equipment," *Review of Educational Research* 5, no. 4 (1935): 406–11. Cited in Baker, "A History of School Design," 8–9.
64. Mock, Elizabeth, and Rudolf Mock, "Schools Are for Children," *The American School and University* 15 (1943): 37–42.
65. Baker, "A History of School Design," 8.

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66. Throughout the United States, the Great Depression ushered in modern reform in many realms of architectural practice, pedagogy, and design. Two major examples in Southern California were in education and housing reform. In the early 1930s, Los Angeles's only collegiate school of architecture at USC shed its Beaux-Arts influenced curriculum and launched a modern curriculum. USC's design philosophy emphasized the same qualities advocated by school plant reformers: functional, modern design, thoughtful, integrated site planning, and indoor-outdoor integration as the key for the "good life." See Howell-Ardila, "Writing Our Own Program." In terms of housing reform, the Garden Apartment movement also emphasized these qualities as the key to providing better housing and living conditions for all. These movements shared practitioners and proponents, as well as the conviction that "modern" architecture was as much a social movement as it was an aesthetic one. For an outstanding history of the Garden Apartment movement in Los Angeles, see Architectural Resources Group, Inc., *Garden Apartments of Los Angeles Historic Context Statement*, prepared for the Los Angeles Conservancy (Los Angeles, CA, October 2012). Throughout the United States in the 1930s, these ideas occasioned a major shift in the national conversation about modern architecture.
67. Sachs, Avigail, "Research for Architecture: Building a Discipline and Modernizing the Profession," PhD Dissertation (Berkeley: University of California, 2009), 161.
68. Baker, "A History of School Design," 8.
69. Eales, "A Brief, General History," 228.
70. Ogata, "Building for Learning," 564.
71. Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944), p. 41.
72. In 1938, Lescaze completed work on CBS Columbia Square in Los Angeles, another International Style building now enjoying Historic-Cultural Landmark status.
73. Lescaze, William, "The Functional Approach to School Planning," *Architectural Record* (June 1936): 481–97, at 481.
74. *Ibid.*, 482.
75. McCoy, Esther, *Richard Neutra* (New York: G. Braziller, 1960), 20.
76. Mock, *Built in USA, 1932 – 1944*.
77. McCoy, *Richard Neutra*, 20–21. McCoy observed that one precedent for Neutra's design would have been Bruno Taut's 1927 Municipal School in Berlin, which also featured a wall that opened onto a terrace sheltered beneath wide overhanging eaves, with clerestory lighting on other elevations.
78. Hille, *Modern Schools*, 81–82.
79. "Progress in School Design, As Evidenced in the Work of Marsh, Smith & Powell, Architects," *The Architect & Engineer* (November 1938): 14–22.
80. Engelhardt, p. 175.
81. Sapphos Environmental, Inc., *City of Long Beach Historic Context Statement*, prepared for the City of Long Beach Department of Development Services (Long Beach, CA, 2009).
82. Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (Los Angeles, CA: 1933), 5.
83. Engelhardt, "Trends in School Architecture and Design," 176.
84. *Ibid.*
85. "Safety, Simplicity and Old-California Beauty Combined in Mission-Type Schools of Reconstruction Program," *Los Angeles Times*, 9 January 1934.
86. *Ibid.*
87. *Southwest Builder and Contractor*, 8 October 1937, 12.
88. Eales, "A Brief, General History," 272.
89. *Ibid.*, 208.

LOS ANGELES UNIFIED SCHOOL DISTRICT

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90. *Los Angeles Herald-Examiner*, 14 September 1943.
91. Eales, "A Brief, General History," 277.
92. Ibid.
93. Ibid., 236.
94. Quoted in Engelhardt, "Trends in School Architecture and Design," 175.
95. Ogata, "Building for Learning," 1.
96. Ibid.
97. Engelhardt, "Trends in School Architecture and Design," 175.
98. Ibid.
99. Ogata, "Building for Learning," 570.
100. Ibid., 581.
101. Diamond, Robert S., "'Ugly Duckling' School Wins Design Honors," *Los Angeles Times*, 12 August 1965.
102. "Educators Will Take Air Tour," *Los Angeles Times*, 21 June 1964.
103. Ogata, "Building for Learning," 581.
104. Murphy, Jean, "Panel Views New Trends in Education," *Los Angeles Times*, 22 February 1968.
105. Caudill, *Toward Better School Design*, 16.
106. Ibid., 17.
107. Greg Hise describes the origins of the movement for "a new conception of modern houses," and the work of Farwell Bemis, one of the early authors of the movement to place manufacturing technology in the service of housing. Hise, Greg, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore, MD: Johns Hopkins University Press, 1997), 56–85.
108. "Case Studies" and "Pioneer School Has Proved the Value of Its Scientific Design," *Architectural Forum* 91 (October 1949): 103–14, at 104.
109. Tanner, C. K., and J. A. Lackney, *Educational Facilities Planning* (Boston: Pearson, Allyn & Bacon, 2005), 12; cited in Baker, "A History of School Design," 11.
110. "Case Studies" and "Pioneer School."
111. Ibid.
112. McQuade, Walter, *Schoolhouse: A Primer about the Building of the American Public School Plant* (New York: Simon & Schuster, 1958), 206.
113. Mock, *Built in USA, 1932 – 1944*, 41.
114. McCoy, *Richard Neutra*, 22.
115. If the finger-plan school remained the dominant trend for so long in spite of these shortcomings, it is in large part because the plan represented the perfect counterpoint to what reformers were still reacting against: the institutional "big block schools with internal corridors and windowless classrooms" (Gibson, *California School Buildings*, 1) These words came from the California Department of Education in 1965, long after the battle against the late-nineteenth-century big-block school had already been won. It is noteworthy that, even as late as 1965, the specter of the unfriendly, institutional school still provided the antithesis against which new ideas were measured.
116. Lopez, Frank G., "Schools: Architectural Record's Building Types Study Number 184: Some Trends in School Design," *Architectural Record* (March 1952): 132–141, 150–154.
117. Ogata, "Building for Learning," 572.
118. Gibson, *California School Buildings*, 1.
119. Ibid.
120. Ogata, "Building for Learning," 569.
121. Los Angeles Conservancy, "Curating the City: Modern Architecture in Los Angeles," Westchester High School. Available at: <https://www.laconservancy.org/locations/orville-wright-middle-school>.
122. Ogata, "Building for Learning," 581.

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123. Ibid., 581–82.
124. “‘Flexible’ School Called Teamwork Aid,” *Los Angeles Times*, 24 November 1961.
125. Ibid.
126. Ogata, “Building for Learning,” 583.
127. Ibid., 582.
128. Rydeen, James E., “Standardizing Schools,” *American School and University* 75, no. 1 (September 2002): 50.
129. Ogata, “Building for Learning,” 582.
130. Ibid., 583.
131. Gibson, *California School Buildings*, 129.
132. Ibid., 106.
133. “Prominent Architect Honored by Engineers,” *Los Angeles Times*, 1 January 1956.
134. Herriott, M. E., “Death of a School,” *The Clearing House* 30, no. 2 (October 1955): 90–93.
135. Los Angeles Board of Education, *Minutes*, 10 September 1945, 5–6. Quoted in Eales, “A Brief, General History,” 279.
136. For an excellent history of the San Fernando Valley, see Roderick, Kevin, *The San Fernando Valley: America’s Suburb* (Los Angeles: Los Angeles Times Books, 2001).
137. Zeman, Ray, “School Costs Rise with Enrollment, 100,000 Half-Day Students Seen in Five Years Unless Bonds Carry,” *Los Angeles Times*, 6 March 1952.
138. Ibid.
139. Turpin, Dick, “1960-61 School Budget of \$254,589,414 OKd,” *Los Angeles Times*, 9 August 1960.
140. Zeman, “School Costs Rise with Enrollment.”
141. “State Renews Appeal for Architects,” *Los Angeles Times*, 18 April 1949.
142. Turpin, Dick, “School Unity May Plug Tax Drain,” *Los Angeles Times*, 1 May 1960.
143. Callan, Mary Ann, “Officials Urge School Merger: Unification Plan Told to PTA School Merger,” *Los Angeles Times*, 5 November 1959.
144. The *Los Angeles Times* published a series of articles on this issue in late 1959. This quote is drawn from: Turpin, Dick, “Unified Schools Savings Viewed, Experts See Advantages in Child Training as Well as Substantial Economies in Plan,” *Los Angeles Times*, 10 November 1959.
145. Turpin, “School Unity Map Plug Tax Drain.”
146. Turpin, Dick, “1960-61 School Budget of \$254,589,414 OKd.”
147. “Quarter Million Students Expected at 176 Schools: Buildings and Personnel Ready for Huge Influx,” *Los Angeles times*, 15 September 1963.
148. Turpin, Dick, “Failure of Bond Issues, Tax Increase Linked to More Half-Day Sessions,” *Los Angeles Times*, 10 September 1962.
149. Steinberg, Warren L., “Down to Defeat Again: Education Tax and Bonds Victims of Our Ignorance,” *Los Angeles Times*, 6 April 1969.
150. Ibid.
151. Ibid.
152. McCurdy, Jack, “L.A. City School Enrollments Drop for First Time in History,” *Los Angeles Times*, 3 October 1969.
153. While a comprehensive history of the topic is beyond the scope of the current study, a topic is addressed in various secondary sources, including the in-depth study provided in Sosa, Herbert R, “Fragmented Diversity: School Desegregation, Student Activism, and Busing in Los Angeles, 1963–1982” (PhD dis., University of Michigan, Ann Arbor, 2013).
154. Nicolaidis, Becky M., *My Blue Heaven: Life and Politics in the Working-Class Suburbs of Los Angeles, 1920–1965* (Chicago, IL: University of Chicago Press, 2002), 179.

LOS ANGELES UNIFIED SCHOOL DISTRICT

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155. Public Information Office of the LACSD, Results Announced of Mandated Racial, Ethnic Survey in Schools, 16 January 1967, fol. Race Question Genl Cont, 1966–1967 Part VII, Box 964, RQC-LAUSD; Sosa, “Fragmented Diversity.”
156. Ibid.
157. Grimes, “Historic Resources Associated with African Americans in Los Angeles.”
158. *California Eagle*, 13 June 1963; *South Gate Press*, 27 June 1963; [QQ:]Hendrick, *The Education of Non-Whites*, 104–105; in Nicolaides, *My Blue Heaven*, 288–9.
159. *Los Angeles Times*, 3 July 1963.
160. Schneider, Jack, “Escape from Los Angeles: White Flight from Los Angeles and Its Schools, 1960–1980,” *Journal of Urban History* 34: 995, 1003.
161. Simpson, Kelly, 7 March 2012, “East L.A. Blowouts: Walking Out for Justice in the Classrooms,” available from KCET:
<http://www.kcet.org/socal/departures/landofsunshine/highland-park/east-la-blowout-walking-out-for-justice-in-the-classrooms.html> (10 September 2013).
162. *Brown v. Board of Education of Topeka, Kan.*, 347 U.S. 483 (1954).
163. Kurashige, Scott, *The Shifting Grounds of Race: Black and Japanese Americans in the Making of Multiethnic Los Angeles* (Princeton, NJ: Princeton University Press, 2010), 273.
164. *Jackson v. Pasadena City School District*, 59 Cal. 2d, 876.
165. Sosa, “Fragmented Diversity,” 1.
166. Nicolaides, *My Blue Heaven*, 288–9.
167. Sosa, “Fragmented Diversity,” xiv.
168. Nicolaides, *My Blue Heaven*, 291.
169. Sosa, “Fragmented Diversity,” 19.
170. Ibid., 2.
171. See, among others, Fanucchi, Ken, “Pacoima Pupils Transfer to Encino Blocked,” *Los Angeles Times*, 29 August 1967; “Compromise Reached to Bus Some Negro Students to Encino,” *Los Angeles Times*, 1 September 1967; “Parents Win Victory in Bus Campaign,” *Los Angeles Times*, 4 September 1967.
172. Boyarsky, Bill, “Dixie Canyon-Hobart Plan: Two Schools—and One Big Step to Integration,” *Los Angeles Times*, 17 August 1977.
173. Birnberg, Judith R., “Flash! An Integration Program That Works,” *Los Angeles Times*, 24 January 1978.
174. Lindsey, Robert, “Los Angeles Schools Plan Busing Amid White Flight,” *New York Times*, 11 October 1977.
175. Ettinger, David S., “The Quest to Desegregate Los Angeles Schools,” *Los Angeles Lawyer* (March 2003), 56; *Crawford v. Board of Educ. of the City of Los Angeles*, 113 Cal. App. 3d 633, 642 & n.2 (1980), 62–3.
176. Engelhardt, “Trends in School Architecture and Design,” 176.
177. The scope of the 2002 survey included a detailed look at all pre-1945 LAUSD campuses, with a focus on representative architectural styles and their character-defining features. This study reframes those results to ensure continuity. Photos in this section attributed to Heumann & Associates are drawn from: Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, “Historic Schools of the Los Angeles Unified School District.”
178. Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977); Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977), 683–708; Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998); McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004); and Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

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179. These descriptions are drawn and adapted from the City of Los Angeles Office of Historic Resources guidelines for evaluating modern resources in Los Angeles. Excerpts in this passage were drawn from: Architectural Resources Group, "Pre-War Modernism," prepared for the City of Los Angeles Office of Historic Resources (Los Angeles, CA, n.d.). The "Early Modern" category fits within the SurveyLA context as follows: Context: Architecture and Engineering, 1850 – 1980; Sub-Context: LA Modernism, 1919 – 1975; Theme: Pre-War Modernism, 1919 – 1945, International Style, 1920 – 1945.
180. Grimes, "Historic Resources Associated with African Americans in Los Angeles."
181. These figures are drawn from: Los Angeles Unified School District, Educational Housing Branch, School Planning Division, Los Angeles Unified School District History of Schools, 1855 to 1972 (January 1973).

VII. SELECTED BIBLIOGRAPHY

- Architectural Resources Group, Pasadena, California, *Garden Apartments of Los Angeles Historic Context Statement*, prepared for the Los Angeles Conservancy (Los Angeles, CA, October 2012).
- Architectural Resources Group, Pasadena, California, "Pre-War Modernism," prepared for the City of Los Angeles Office of Historic Resources (Los Angeles, CA, n.d.).
- Baker, Lindsay, "A History of School Design and Its Indoor Environmental Standards, 1900 to Today," PhD Dissertation (Berkeley: Department of Architecture, Center for the Built Environment, University of California, Berkeley, January 2012).
- Barnhill, O.H., "The Los Angeles School's Business Department," *The American School Board Journal* (February 1927): 51–52.
- Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009), 28.
- Birnberg, Judith R., "Flash! An Integration Program That Works," *Los Angeles Times*, 24 January 1978.
- Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).
- Boyarsky, Bill, "Dixie Canyon-Hobart Plan: Two Schools—and One Big Step to Integration," *Los Angeles Times*, 17 August 1977.
- Briggs, Warren Richard, *Modern American School Buildings* (New York: J. Wiley & Sons, 1906), 8.
- California Office of Historic Preservation, "California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register)," *Technical Assistance Series No. 6*. (Sacramento, CA, 14 March 2006). Available at: http://ohp.parks.ca.gov/pages/1056/files/06CalReg&NatReg_090606.pdf
- California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).
- Callan, Mary Ann, "Officials Urge School Merger: Unification Plan Told to PTA School Merger," *Los Angeles Times*, 5 November 1959.
- "Case Studies" and "Pioneer School Has Proved the Value of Its Scientific Design," *Architectural Forum* 91 (October 1949): 103–14, at 104.
- Caudill, William Wayne, *Toward Better School Design* (New York: FW Dodge Corporation, 1954), 16.
- Caughey, John W., *The Shame of Los Angeles: Segregated Schools, 1970–1971* (Los Angeles, CA: Quail Books, 1971).
- "City's Schools Highly Praised: Pamphlet Draws Comparisons Showing San Francisco System Interior," *Los Angeles Times*, 17 May 1914.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

- "Compromise Reached to Bus Some Negro Students to Encino," *Los Angeles Times*, 1 September 1967.
- "Course of Study: What Methods Best in Our Schools? All Citizens, Good and True, Appealed to by Committee of Ten," *Los Angeles Times*, 17 May 1900.
- Diamond, Robert S., "'Ugly Duckling' School Wins Design Honors," *Los Angeles Times*, 12 August 1965.
- Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921), ix.
- Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956), 78.
- "Educators Will Take Air Tour," *Los Angeles Times*, 21 June 1964.
- Engelhardt, N.L., Jr., "Trends in School Architecture and Design," *Review of Educational Research* 12, no. 2 (April 1942): 171–77, at 174.
- Ettinger, David S., "The Quest to Desegregate Los Angeles Schools," *Los Angeles Lawyer* (March 2003), 56.
- Fanucchi, Ken, "Pacoima Pupils Transfer to Encino Blocked," *Los Angeles Times*, 29 August 1967.
- Flamming, Douglas, *Bound for Freedom: Black Los Angeles in Jim Crow America* (Berkeley: University of California Press, 2005), 90.
- "'Flexible' School Called Teamwork Aid," *Los Angeles Times*, 24 November 1961.
- Fogelson, Robert M. *The Fragmented Metropolis: Los Angeles, 1850-1903* (Berkeley: University of California Press, 1967).
- Gebhard, David, and Robert Winter, *Architecture in Los Angeles: A Complete Guide* (Salt Lake City, UT: Gibbs M. Smith, Inc., Peregrine Smith Books, 1985).
- Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977), 683–708.
- Gibson, Charles D., *California School Buildings, 1960 to 1965* (Sacramento: California State Department of Education, 1966), 1.
- Grimes, Teresa, "Historic Resources Associated with African Americans in Los Angeles, Los Angeles County, California," *National Register of Historic Places* (Washington, DC: U.S. Department of the Interior, National Park Service, 31 December 2008).
- Grimes, Teresa, "National Register of Historic Places Multiple Property Documentation Form" (Los Angeles, CA: Christopher A. Joseph & Associates, 31 December 2008).
- Hamlin, Alfred D. F., *Modern School Houses, Being a Series of Authoritative Articles on Planning, Sanitation, Heating and Ventilation*, vol. 1 (New York: The Swetland Publishing Company, 1910), 9.
- Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

- Harris, Dianne, *Little White Houses: How the Postwar Home Constructed Race in America* (Minneapolis: University of Minnesota Press, 2013).
- Herriott, M. E., "Death of a School," *The Clearing House* 30, no. 2 (October 1955): 90–93.
- Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.
- Hise, Greg, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore, MD: Johns Hopkins University Press, 1997), 56–85.
- Holmes, William Henry, *School Organization and the Individual Child: A Book for School Executives and Teachers* (Worcester, MA: The Davis Press, 1912), 1.
- Holy, T.C., "Needed Research in the Field of School Buildings and Equipment," *Review of Educational Research* 5, no. 4 (1935): 406–11. Cited in Baker, "A History of School Design," 8–9.
- Howell-Ardila, Deborah, "Writing Our Own Program: The USC Experiment in Modern Architectural Pedagogy," Master of Historic Preservation Thesis (Los Angeles, CA: USC School of Architecture, December 2010).
- "In the Public Schools," *Los Angeles Times*, 3 December 1911.
- Kurashige, Scott, *The Shifting Grounds of Race: Black and Japanese Americans in the Making of Multiethnic Los Angeles* (Princeton, NJ: Princeton University Press, 2010), 273.
- Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (1999).
- Lescaze, William, "The Functional Approach to School Planning," *Architectural Record* (June 1936): 481–97, at 481.
- Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002), 6.
- Lindsey, Robert, "Los Angeles Schools Plan Busing Amid White Flight," *New York Times*, 11 October 1977.
- Lopez, Frank G., "Schools: Architectural Record's Building Types Study Number 184: Some Trends in School Design," *Architectural Record* (March 1952): 132–141, 150–154.
- Los Angeles Board of Education, *Minutes*, 10 September 1945, 5–6.
- Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (1933), 5.
- Los Angeles Conservancy, "Curating the City: Modern Architecture in Los Angeles," Westchester High School. Available at: <https://www.laconservancy.org/locations/orville-wright-middle-school>.
- Los Angeles Herald-Examiner*, 14 September 1943.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

- "Los Angeles Public Schools," *Los Angeles Times*, 1 January 1898.
- "Los Angeles Public Schools: Schools and Teachers," *Los Angeles Times*, 1 January 1898.
- Los Angeles Unified School District, Educational Housing Branch, School Planning Division, *Los Angeles Unified School District History of Schools, 1855 to 1972* (January 1973).
- Marquis, Neeta, "A Tour through a Great Modern Plant and a Glimpse into the Stupendous Development of the Mechanical and Business Side of Our Educational System," *Los Angeles Times*, 29 January 1928.
- McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).
- McCoy, Esther, "Arts and Architecture Case Study Houses," in *Blueprints for Modern Living*, ed. Elizabeth A.T. Smith (Cambridge, MA: MIT Press, 1989).
- McCoy, Esther, *Case Study Houses* (Santa Monica, CA: Hennessey and Ingalls, 1977).
- McCoy, Esther, *Richard Neutra* (New York: G. Braziller, 1960), 20.
- McCurdy, Jack, "L.A. City School Enrollments Drop for First Time in History," *Los Angeles Times*, 3 October 1969.
- McQuade, Walter, *Schoolhouse: A Primer about the Building of the American Public School Plant* (New York: Simon & Schuster, 1958), 206.
- McWilliams, Carey, *Southern California: An Island on the Land* (Layton, UT: Gibbs Smith, 1946).
- Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944), p. 41.
- Mock, Elizabeth, and Rudolf Mock, "Schools Are for Children," *The American School and University* 15 (1943): 37–42.
- Murphy, Jean, "Panel Views New Trends in Education," *Los Angeles Times*, 22 February 1968.
- Nicolaidis, Becky M., *My Blue Heaven: Life and Politics in the Working-Class Suburbs of Los Angeles, 1920–1965* (Chicago, IL: University of Chicago Press, 2002), 179.
- Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91, at 564.
- "Parents Win Victory in Bus Campaign," *Los Angeles Times*, 4 September 1967.
- "Progress in School Design, As Evidenced in the Work of Marsh, Smith & Powell, Architects," *The Architect & Engineer* (November 1938): 14–22.
- "Prominent Architect Honored by Engineers," *Los Angeles Times*, 1 January 1956.
- "Quarter Million Students Expected at 176 Schools: Buildings and Personnel Ready for Huge Influx," *Los Angeles times*, 15 September 1963.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

- Raftery, Judith Rosenberg, *Land of Fair Promise: Politics and Reform in Los Angeles Schools, 1885-1941* (Stanford, CA: Stanford University Press, 1992).
- Roderick, Kevin, *The San Fernando Valley: America's Suburb* (Los Angeles: Los Angeles Times Books, 2001).
- Rydeen, James E., "Standardizing Schools," *American School and University* 75, no. 1 (September 2002): 50.
- Sachs, Avigail, "Research for Architecture: Building a Discipline and Modernizing the Profession," PhD Dissertation (Berkeley: University of California, 2009), 161.
- "Safety, Simplicity and Old-California Beauty Combined in Mission-Type Schools of Reconstruction Program," *Los Angeles Times*, 9 January 1934.
- Sapphos Environmental, Inc., *City of Long Beach Historic Context Statement*, prepared for the City of Long Beach Department of Development Services (Long Beach, CA, 2009).
- Schneider, Jack, "Escape from Los Angeles: White Flight from Los Angeles and Its Schools, 1960-1980," *Journal of Urban History* 34: 995, 1003.
- Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002), 12.
- Science Applications International Corporation, *Preliminary Historic Resources Survey of the Los Angeles Unified School District*, prepared for the Los Angeles Unified School District, Facilities Services Division (Pasadena, CA: June 2002), 6.
- Sides, Josh, *L.A. City Limits: African American Los Angeles from the Great Depression to the Present* (Berkeley: University of California Press, 2006).
- Simpson, Kelly, "East L.A. Blowouts: Walking Out for Justice in the Classrooms," KCET (7 March 2012), available at:
<http://www.kcet.org/socal/departures/landofsunshine/highland-park/east-la-blowout-walking-out-for-justice-in-the-classrooms.html>
- Sosa, Herbert R, "Fragmented Diversity: School Desegregation, Student Activism, and Busing in Los Angeles, 1963-1982" (PhD dis., University of Michigan, Ann Arbor, 2013).
- "State Renews Appeal for Architects," *Los Angeles Times*, 18 April 1949.
- Straus, Emily, "The Making of the American School Crisis: Compton, California and the Death of the Suburban Dream" (PhD diss., Brandeis University, Waltham, MA 2006).
- Steinberg, Warren L., "Down to Defeat Again: Education Tax and Bonds Victims of Our Ignorance," *Los Angeles Times*, 6 April 1969.
- Southwest Builder and Contractor*, 8 October 1937, 12.
- Tanner, C. K., and J. A. Lackney, *Educational Facilities Planning* (Boston: Pearson, Allyn & Bacon, 2005), 12.

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

- Turner, Timothy G., "Rediscovering Los Angeles," *Los Angeles Times*, 13 April 1936.
- Turpin, Dick, "1960-61 School Budget of \$254,589,414 OKd," *Los Angeles Times*, 9 August 1960.
- Turpin, Dick, "Failure of Bond Issues, Tax Increase Linked to More Half-Day Sessions," *Los Angeles Times*, 10 September 1962.
- Turpin, Dick, "School Unity May Plug Tax Drain," *Los Angeles Times*, 1 May 1960.
- Turpin, Dick, "Unified Schools Savings Viewed, Experts See Advantages in Child Training as Well as Substantial Economies in Plan," *Los Angeles Times*, 10 November 1959.
- U.S. Department of the Interior, National Park Service, "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character," *Preservation Brief No. 17* (Washington, DC, September 1988).
- U.S. Department of the Interior, National Park Service, "Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places," *National Register Bulletin* (Washington, DC, 2002).
- U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," *National Register Bulletin No. 15* (Washington, DC, 2002).
- U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," *National Register Bulletin No. 16A* (Washington, DC, 1997).
- U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin No. 16B* (Washington, DC, 1999).
- U.S. Department of the Interior, National Park Service, "Researching a Historic Property," *National Register Bulletin No. 39* (Washington, DC, 1998).
- Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).
- Wollenberg, Charles, *All Deliberate Speed: Segregation and Exclusion in California Schools, 1855-1975* (Berkeley: University of California Press, 1978).
- Zeman, Ray, "School Costs Rise with Enrollment, 100,000 Half-Day Students Seen in Five Years Unless Bonds Carry," *Los Angeles Times*, 6 March 1952.



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Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools

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January 2015

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I. INTRODUCTION

The provisions of the California Environmental Quality Act (CEQA) include the loss of character-defining features and, as a consequence, historic integrity among the significant adverse impacts to historic resources. Under CEQA, for qualifying projects, should the potential exist for an adverse impact to historic resources, it is necessary to conduct further environmental review and study, including impacts analyses and the preparation of mitigation measures and project alternatives.

Through the use of design guidelines, however, owners of historic properties have an effective tool for designing and implementing projects that avoid significant adverse impacts to historic resources. This is the goal of the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools*: to recommend approaches for modernization and upgrade projects that also avoid significant adverse impacts to LAUSD's many historically significant schools. The guidelines presented in this document draw upon a thorough understanding of (1) LAUSD's history and property types; (2) best practices in historic preservation and CEQA, including application of the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (SOI Standards hereafter); and (3) the projects currently being planned for LAUSD's campuses districtwide.¹

The point-of-departure for this study's recommendations are the SOI Standards. The SOI Standards are the industry-recognized guidelines for fostering the preservation, rehabilitation, and maintenance of historic properties. Pursuant to CEQA, the SOI Standards are also recognized as generally mitigating adverse impacts to historic resources to a less-than-significant level. Therefore, projects complying with the SOI Standards are eligible under CEQA for a Categorical Exemption from further environmental review. In this way, these guidelines provide a tool for streamlining environmental review and preventing delays in project implementation, while also protecting historic resources. Not all projects that depart from the SOI Standards automatically result in adverse impacts. But SOI Standards conformance generally ensures that alterations to a historic resource will not result in a loss of historic integrity.

Rather than providing prescriptive solutions, design guidelines offer general approaches for identifying significant features and maintaining, repairing, and treating historically significant features and materials in such a way that the resource's historic integrity remains intact. The basic principles of the SOI Standards are to identify, retain, and preserve the features and materials that convey the significance of historic properties.

All historically significant properties present different opportunities and constraints for carrying out upgrade projects, and therefore most projects must be studied on a case-by-case basis. However, these general approaches and guidelines offer LAUSD a sound first step for ensuring that much-needed modernization projects to LAUSD assets result in minimal impacts to historic resources. This manual is intended to be used in tandem with the districtwide procedural guidelines prepared by PCR Services Corporation and included the 2014 LAUSD Program EIR.

¹ Weeks, Kay D., and Anne E. Grimmer. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (Washington, D.C.: National Park Service, 1995).

² *California Code of Regulations, Title 24, California Historical Building Code, Section 8-101.2.* (Washington, DC:

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□

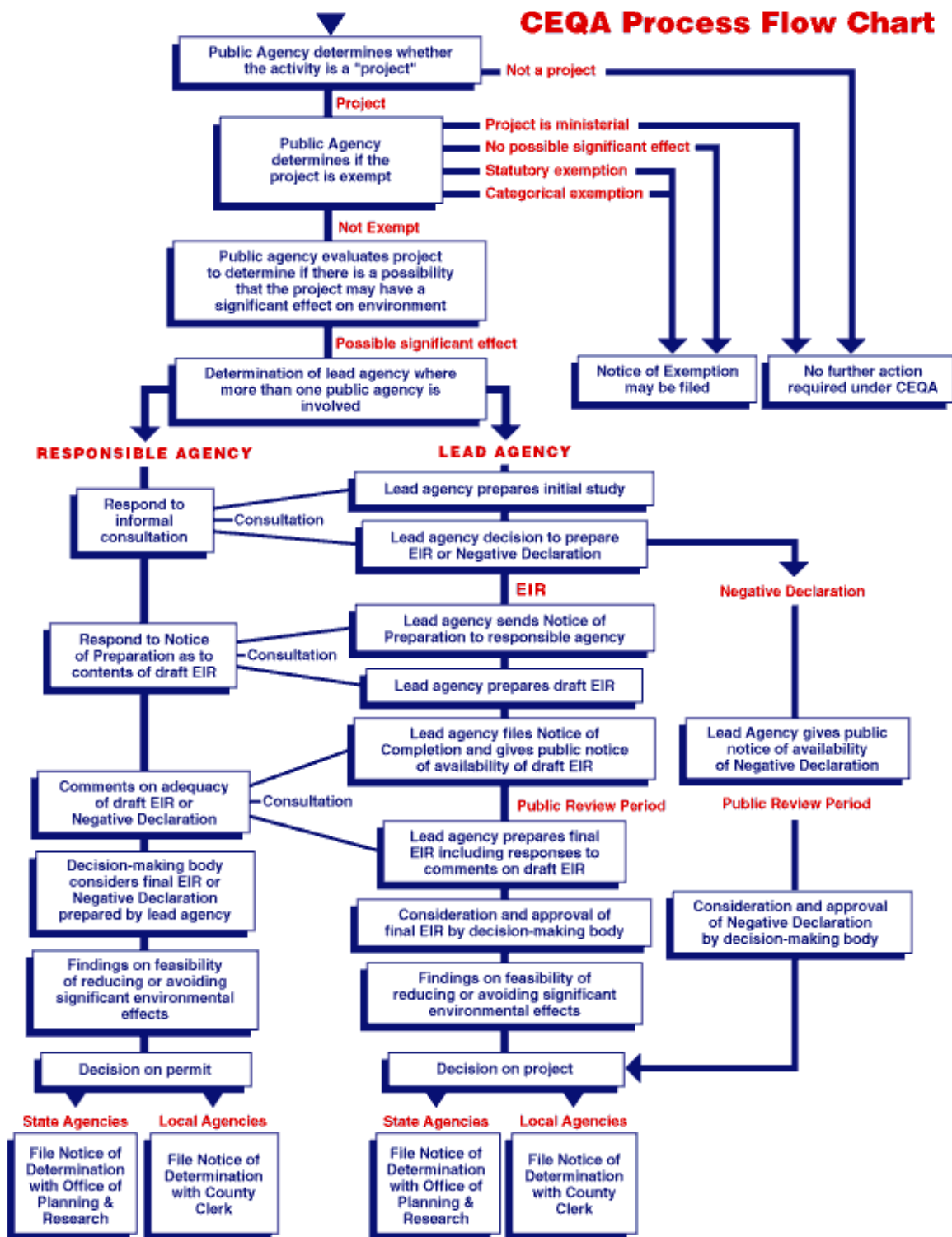


Figure 1. The upper right-hand corner of this CEQA flow chart illustrates the expedited path for environmental review for projects qualifying for a Categorical Exemption, such as the exemption offered through documented compliance with the SOI Standards. Source: California Environmental Quality Act Statute and Guidelines, 2013.

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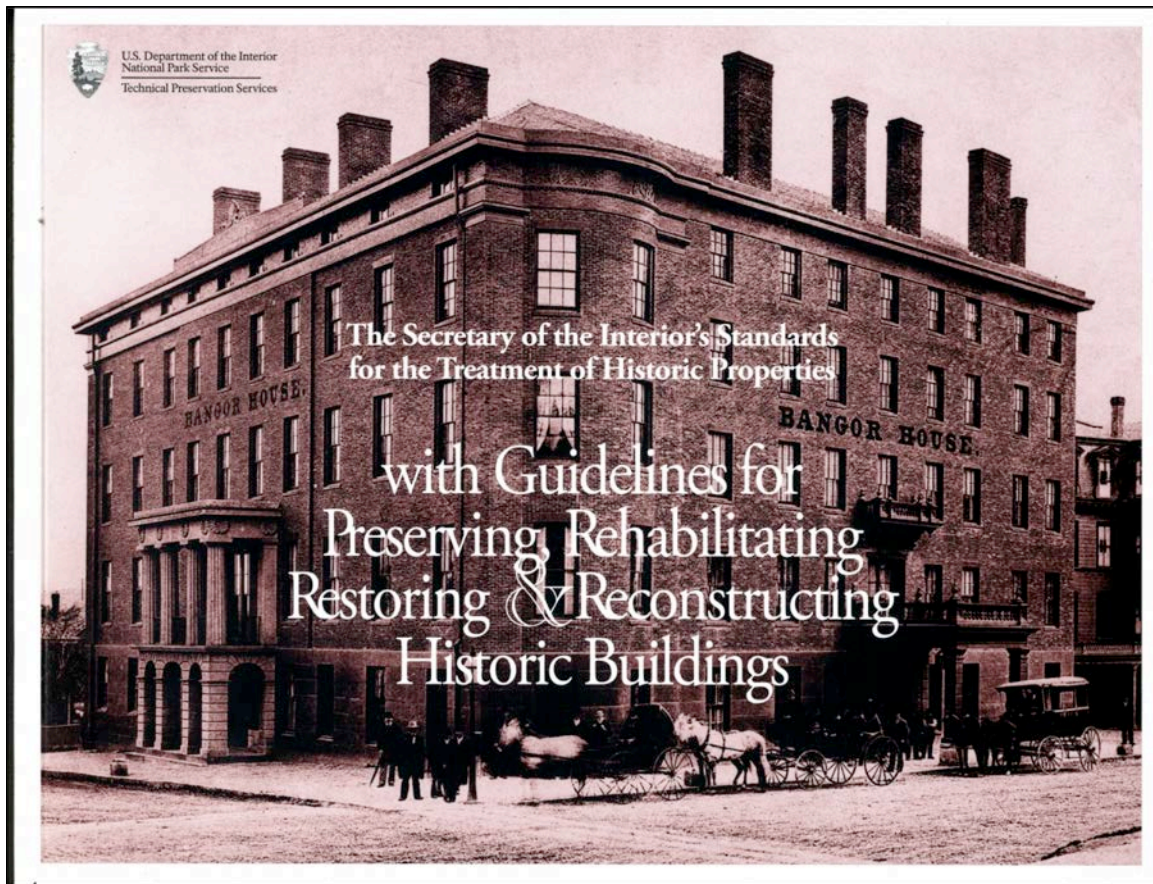


Figure 2. Under CEQA, a Class 31 Categorical Exemption is possible for projects complying with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. Source: National Park Service, Department of the Interior.

Project Background

With nearly 800 campuses and a geographic span of over 700 square miles, LAUSD is the second largest public school system in the United States. Since its founding in 1872, the district has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. Extant properties range from the wood-framed schoolhouse of the late nineteenth century to superblock campuses displaying Mid-Century Modern and post-Modern architectural styles.

As of November 2014, nearly 150 LAUSD schools have been identified as eligible for federal and/or state-level landmark designation. In advance of district-wide modernization, LAUSD commissioned a comprehensive Historic Context Statement, a 55-campus historic resources survey, and the preparation of procedural guidelines to ensure compliance with CEQA and the National Environmental Policy Act (NEPA). This study represents the final step in this undertaking. In July 2014, LAUSD was recognized for this effort, receiving an award from the California Preservation Foundation for the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. The *LAUSD Design Guidelines and Treatment Approaches for Historic Schools* draws upon the Historic Context Statement and complements the CEQA/NEPA Procedural Guidelines being prepared concurrently by PCR Services Corporation.

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Project Team

Debi Howell-Ardila, architectural historian with SWCA Environmental Consultants, served as the principal author and lead architectural historian for the *LAUSD Design Guidelines and Treatment Approaches* study. Leslie Heumann, who conducted LAUSD's original districtwide survey in 2001-2004, served as project advisor. Sketches and input were provided by James McLane, AIA, associate principal at Architectural Resources Group. Gwenn Godek of the LAUSD Office of Environmental Health and Safety and Margarita Wuellner of PCR Services Corporation served as project administrators. The study also benefited from the input of LAUSD Facilities Services Division (FSD) staff members and Linda Dishman and Adrian Scott Fine, executive director and director of advocacy, respectively, of the Los Angeles Conservancy.

Study Contents

The *LAUSD Design Guidelines and Treatment Approaches* study consists of seven sections:

Section I, Introduction

Section II, Project Planning and Implementation: General Guidelines

Section III, Recommended Approaches: School Features and Components

Section IV, Recommended Approaches: School Upgrade and Modernization Projects

Section V, Overview of Principal Typologies, Property Types, Styles, and Character-Defining Features

Section VI, Conclusion

Section VII, National Park Service Technical Assistance: Select References

In addition to outlining the necessary steps for planning projects for historic schools, Section II incorporates observations about the SOI Standards for Rehabilitation. General and project-specific recommendations for treatments are presented in Sections III and IV. Section III includes recommendations according to school features and components, including: (1) architectural and ornamental detailing; (2) roof forms and features; (3) façade treatments; (4) site design and landscape features; interior spaces and features. Section IV presents guidelines according to project types, including: (1) window upgrades; (2) HVAC upgrades and installation; (3) ADA Compliance and Access; (4) Hazardous Materials Abatement; (5) Fire and Life Safety; (6) Seismic Upgrades; (7) Additions and New Construction; (8) Mechanical Systems Placement and Installation.

Additional guidance for project design involving historically significant LAUSD schools is provided in the 2013 *California Historical Building Code* (CHBC), which follows this study as Appendix A. As codified in Section 8 of the *California Code of Regulations, Title 24*, the CHBC offers flexibility for code requirements and "requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties."² The CHBC

is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.³

² *California Code of Regulations, Title 24*, California Historical Building Code, Section 8-101.2. (Washington, DC: International Code Council, 2013), p. 1.

³ *Ibid*, p. 1.

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As defined in *California Health and Safety Code Section 18955*, historical buildings and properties qualifying for use of the CHBC include

Any building, site, object, place, location, district or collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state or federal governmental jurisdiction. This shall include historical buildings or properties on, or determined eligible for, national, state or local historical registers or inventories, such as the National Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and city or county registers, inventories or surveys of historical or architecturally significant sites, places or landmarks.⁴

As shown in Appendix A, the CHBC offers guidance and alternatives for projects involving Fire Protection (Section 8-4), Means of Egress (Section 8-5), Accessibility (Section 8-6), Structural Regulations (Section 8-7), Archaic Materials and Methods of Construction (Section 8-8), Mechanical, Plumbing and Electrical Requirements (Section 8-9), and Qualified Historical Districts, Sites and Open Spaces (Section 8-10). Pursuant to Section 18954 of the California Health and Safety Code, the state or local enforcing agency “shall administer and enforce the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstructions, rehabilitation, relocations or continued use of a qualified historical building or property.”⁵ Applications of the CHBC to qualifying LAUSD properties should be carried out on a case-by-case basis in conjunction with a qualified historic preservation professional.

Additional federal-level guidance is provided to LAUSD project planners and architects through technical bulletins and briefs published by the Technical Preservation Services division of the National Park Service Department of the Interior. The *Preservation Briefs* offer detailed, material-specific guidelines and recommendations; an annotated list of *Preservation Briefs* most applicable to LAUSD projects follows in Section VII, National Park Service Technical Assistance: Select References.

In addition, the series entitled *Interpreting the Secretary of the Interior’s Standards for Rehabilitation* offers case studies covering a range of project scenarios. A summary of topics covered in the ITS series includes: New Additions (ITS No. 3), Adding New Openings (ITS No. 14), Interior Finishes (ITS No. 19), Adding New Openings on Secondary Elevations (ITS No. 21), Adding New Entrances to Historic Buildings (ITS No. 22), Windows: Selecting New Windows to Replace Non-Historic Windows (ITS No. 23), Corridors: Installing New Systems in Historic Corridors (ITS No. 24), Entrances and Doors: Entrance Treatments (ITS No. 26), Corridors: Corridors in Historic School Buildings (ITS No. 40), Modifying Historic Interior Railings to Meet Building Code (ITS No. 46), Rooftop Additions on Mid-Size Historic Buildings (ITS No. 47), Installing New Systems in Historic Buildings (ITS No. 51), Designing New Additions to Provide Accessibility (ITS No. 53). A list of ITS Bulletins most applicable to LAUSD properties is included in Section VII.

⁴ *California Code of Regulations, Title 24*, California Historical Building Code, Section 8-101.2. (Washington, DC: International Code Council, 2013), p. 4.

⁵ *Ibid*, p. 1.

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II. Project Planning and Implementation: General Guidelines

All historic buildings offer unique opportunities and constraints for implementing successful projects. The critical first step for project planning is always the same, however: identifying contributing properties and their character-defining features in conjunction with a qualified architectural historian. Equally important for LAUSD staff are determinations of non-eligibility, since additional flexibility, both in terms of project design and CEQA review, exists for properties that are not “contributing” (eligible for listing) and are therefore not considered historic resources under CEQA.

Early planning is the key to avoiding adverse impacts to historic resources. The project that successfully avoids impacts to historic resources is a creative one, designed with an eye toward achieving project objectives while also retaining historically significant features. Although no one recipe exists for project design, the following guidelines and review process will allow for successful project implementation and minimal impacts to historic resources. The SOI Standards offer four “treatments” for historic properties: preservation, rehabilitation, restoration, and reconstruction. For most, if not all LAUSD projects, rehabilitation is appropriate treatment. Rehabilitation accommodates changes and upgrades and does not require the sometimes expensive and time-consuming process of returning a historic property to a particular moment in time.

A. Planning and Designing Projects for Historic Schools: Three Phases

Early input from a qualified historic preservation professional will result in better project design, the avoidance of significant adverse impacts to historic resources, and a smoother environmental clearance process. Generally, three concise rounds of input by a qualified historic preservation professional will be required; the preservation professional will consult with the project team as necessary and document each review in a memorandum that will form part of the administrative record necessary for demonstrating CEQA compliance.

Phase 1: Commission Character-Defining Features Memorandum for the Record (MFR)

Effective preservation starts with identification. Therefore, the first step for projects involving a historically significant school is to identify which buildings, structures and features are eligible for listing (and therefore contributing elements) and which elements are ineligible (and noncontributing). More flexibility exists for modifications or removal of noncontributing elements. In this way, concise data on the historic school and its significant and nonsignificant features is the most critical information for LAUSD as project planning begins.

For campuses including identified historic resources, LAUSD will commission a **brief, focused** Character-Defining Features MFR from a qualified architectural historian (as defined below). The memo will include:

1. 1-2 pages maximum: Brief campus history, including information on development/construction chronology; data to include primary and secondary sources, such as LAUSD Pre-Planning Surveys, historic aerial maps and photographs, as well as visual inspections;
2. 1 page maximum: Information on eligibility findings (date of evaluation, criteria, and theme of significance); data sources to include the 2001-2004 and/or 2014 LAUSD Historic Resources Survey, City of Los Angeles Office of Historic Resources SurveyLA data, LAUSD Historic

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Resources Inventory Database, and/or California Historic Resources Inventory, as well as previously prepared Department of Parks and Recreation Forms documenting LAUSD campuses;

3. Identification and documentation of contributing and noncontributing buildings, structures, objects, and elements of the historic campus (including Arc-GIS shape files mapping results for ease of use by LAUSD); this assessment to include contributing landscaping/site design features and/or artwork if present as well as brief descriptions of each contributing (eligible) element;
4. Identification and brief documentation and description of primary and secondary character-defining elevations of each eligible building, structure, object, and feature;
5. Depending on the project, the Character-Defining Features MFR can identify and document primary and secondary character-defining materials, design details, and features on the exterior and interior potentially impacted by the project, as supplementary data provided prior to schematic design review as requested by LAUSD. The specific data provided in the Character-Defining Features MFR will be determined by LAUSD on a case-by-case basis.

Phase 2: SOI Standards Compliance and Schematic Design Review: Preliminary and Final Phases

- Task: Using baseline data of the Character-Defining Features MFR, project objectives and design options will be studied by qualified architectural historian and/or historic architect in the preliminary schematic design phase; this phase will also include a brief site-walk with LAUSD FSD staff and historic preservation professional.
- Purpose: Selection of optimal project options to fulfill project objectives and to ensure compliance with SOI Standards; site walk will clarify primary and secondary character-defining features, spaces, and elevations potentially affected by project.
- Work Product: MFR by qualified architectural historian and/or historic architect documenting selected design option and project compliance with SOI Standards. This memo will also identify any aspects of the proposed project that are not in compliance and make recommendations to bring these aspects into compliance.

Phase 3: Design Development or 50-percent Construction Drawings

- Task: Review of construction drawings by qualified architectural historian and/or historic architect at 50% construction drawings stage. As needed, this stage can also include a site visit.
- Purpose: Providing input on details of project design and guidance for any issues that needed to be resolved following schematic review.
- Work Product: MFR by qualified architectural historian and/or historic architect summarizing project review and SOI Standards compliance.

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B. Professional Qualification Standards for Historic Preservation Professionals

To ensure CEQA compliance and an adequate administrative record, the historic resource analysis and preservation tasks described in this document must be completed by qualified historic preservation professionals. These requirements draw on the National Park Service Department of the Interior's *Secretary of the Interior's Standards and Guidelines: Professional Qualifications Standards*. This section summarizes the standards and roles for historic preservation professionals assisting LAUSD in upgrades and modifications to historic LAUSD campuses:

- **Qualified Architectural Historian:** Meets/exceeds the Secretary of the Interior's Professional Qualifications Standards for architectural history and possesses a minimum of eight years of experience (preferably including evaluations of school buildings and campuses)

Role and responsibilities: Historic resource evaluations; determinations of contributing and noncontributing buildings, structures, and objects, as well as primary and secondary character-defining features; schematic plan review and SOI Standards conformance review. Assistance with applications of the State Historic Building Code to projects carried out on qualifying schools.

- **Qualified Historic Architect:** Meets/exceeds the Secretary of the Interior's Professional Qualifications Standards for historic architecture and possesses a minimum of eight years of experience (preferably including work on school buildings and campuses).

Role and responsibilities: Project-level schematic and construction plan review and SOI Standards conformance review; provision of technical specifications and input on projects involving upgrades and modifications to historic campuses. Assistance with applications of the State Historic Building Code to projects carried out on qualifying schools.

C. Construction Process

The construction process at a historic property must incorporate the following best practices. (1) Protect adjacent historic features, materials and finishes during construction. (2) Document appearance before, during and after construction to the extent necessary to inform the design and provide evidence for the environmental compliance process. (3) Job site decision tree: Change orders to be reviewed by qualified historic preservation professional or by a project team member fully versed in the requirements affecting historic resources. (4) No changes shall be made to project plans during construction without input from qualified historic preservation professional or team member.

Before construction process, if appropriate to the project, the qualified architectural historian and/or historic architect will provide CSI specifications for architectural features or materials requiring specific restoration, removal, or storage requirements. This will include detailed, clear instructions on maintaining and protecting in place relevant features in accordance with best practices and standards.

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D. SOI Standards: Overview and Principal Ideas

1. Identify and prioritize character-defining features and spaces in the project area (primary and secondary features as well as elevations, on exterior and interior). Additional flexibility exists for features, spaces, and elevations that are of secondary importance rather than primary importance.
2. Retain, preserve and repair where possible.
3. Where necessary, replace in-kind to match existing in materials, finishes, and details.
4. New features/additions should be compatible but differentiated from historic fabric; do not use conjectural evidence to re-create missing historic features.
5. It is possible that individual portions of project program may deviate from SOI Standards but the overall project can be determined to be in compliance. While the recommended approach will always favor the retention of historically significant elements, project objectives may at times require the removal of historic fabric. The effect of such removal on the historic integrity of the resource must be determined by a qualified architectural historian on a case-by-case basis.
6. The Rehabilitation standards do not necessarily entail the replacement of missing historic features that would be required for a Restoration.

E. Overall Process and Procedures

In order to ensure that LAUSD's goal for protecting and maintaining its historically significant properties is realized, modernization and upgrade projects should generally follow these guidelines:

- Upgrade, modernization and new construction projects for schools identified as historic resources for the purposes of CEQA will conform with the SOI Standards to the maximum extent practicable;
- Master planning initiatives for schools identified as historic resources under CEQA shall be subject to environmental review and evaluation by a qualified historic preservation professional to ensure that potential negative impacts to historic resources are avoided through conformance with the SOI Standards and LAUSD cultural resource policies and procedures;
- Some modernization projects might include elements that do not conform with the SOI Standards, but the project overall might not result in significant adverse impacts to historic resources and might therefore be acceptable; such cases must be studied on a case-by-case basis;
- In cases where modernization of LAUSD's significant historic resources cannot be feasibly undertaken in conformance with the SOI Standards and significant adverse effects to historic resources result, the district shall, through the environmental review process, in conjunction with a qualified historic preservation professional, develop and implement mitigation measures to reduce adverse impacts. Mitigation monitoring will include consultation with a qualified historic preservation professional.

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III. School Features and Components

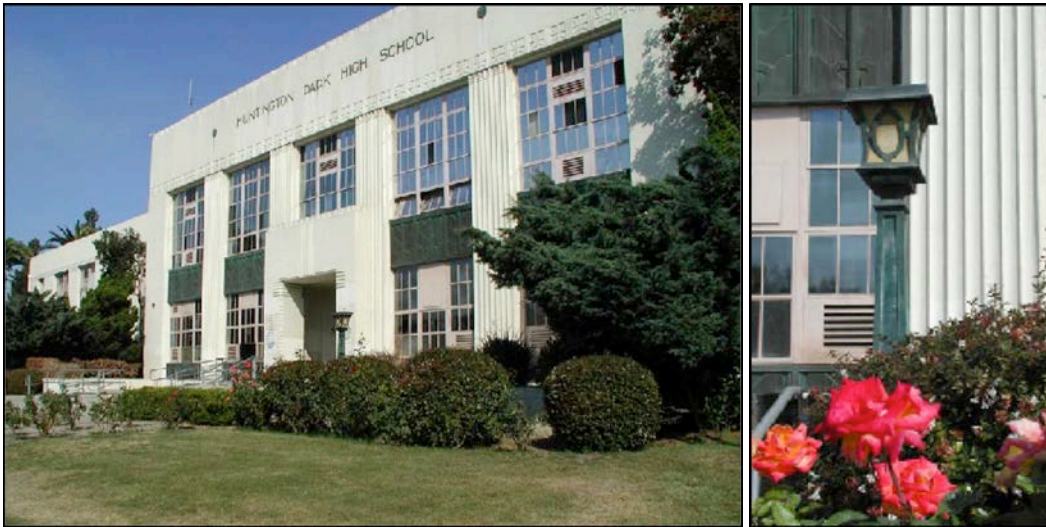
The following sections present feature-specific recommendations for the major components of historic schools. These include: (1) Architectural and Ornamental Detailing; (2) Roof Forms and Features; (3) Façade Treatment; (4) Site Plan and Landscaping Features; and (5) Interior Spaces and Features. (Windows are discussed in Section IV.)

The *Design Guidelines and Treatment Approaches for LAUSD's Historically Significant Schools* focuses on the "character-defining features" of schools that are eligible for national, state, or local landmark listing and are therefore historic resources under CEQA. Character-defining features are the distinctive physical elements, materials, details, and characteristics that convey the significance of a historic building. Character-defining features must be identified and retained in order to ensure that a historic resource continues to convey the reasons for its significance. Section V includes additional information on the character-defining features typical of LAUSD campuses and school buildings.

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EXAMPLES OF ARCHITECTURAL AND ORNAMENTAL DETAILING



Figures 3. and 4. Art Deco detailing, Huntington Park High School (1936). Source: Leslie Heumann and Associates and SAIC for LAUSD.



Figures 5. and 6. From classical to modernist architectural detailing: San Fernando Middle School (1916) and Narbonne High School (1956). Source: LAUSD.



Figures 7. and 8. Mid-Century Modern details: stack-bond brick veneer, Fernangeles Elementary School (left), and patterned tile at classroom entries, Chatsworth High School (right). Source: LAUSD, 2014.

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ARCHITECTURAL AND ORNAMENTAL DETAILING

Contributing architectural details should be identified, retained and preserved. Such details might include ornament made of wood, brick, concrete, tile, stone or metal. Decorative treatments and elements also might include polychromatic or patterned brick or tile; string-courses or corbelling; decorative window or roof eave treatments; railings; or quoining.

Such architectural details convey the significance of a given architectural style or era of school building and should be maintained, repaired where possible, or replaced in-kind if necessary.

Recommended Approaches, Architectural and Ornamental Detailing:

- Where deteriorated or missing, architectural details should be repaired or replaced, to the extent feasible, to match originals (based on physical and/or documentary evidence)
- Significant architectural details should not be obscured, covered, or destroyed
- Any new elements added to character-defining spaces should be compatible with the style, size, scale, materials, finishes, and detailing of the historic property overall
- Repairs/Maintenance: periodically clean and re-finish to match existing architectural features that show signs of deterioration (such as deteriorating wood or metal with signs of corrosion)
- Clean and prepare surfaces using the gentlest methods possible, in order to avoid damaging historic materials



Figures 9. and 10. Decorative brick work and detailing, Burroughs Middle School and John Marshall High School. Source: SWCA Environmental Consultants, 2014.

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EXAMPLES OF ROOF FORMS AND FEATURES



Figures 11. and 12. Roof brackets and exposed rafter tails, Morningside Elementary School (1915, left). Wide, unadorned cantilevered eaves, Leapwood Elementary School (1962, right). Source: LAUSD.



Figures 13. and 14. Modernist roof treatments: extended, trellis-like eaves, Colfax Avenue Elementary School (1950, left). Zig-zag roofline, Palisades High School (1963, right). Source: LAUSD, 2014 (left), SWCA Environmental Consultants (right).



Figures 15. and 16. Mid-Century Modern roof treatments: flat roof with no eaves combined with cantilevered projections, Fernangeles Elementary School (left) and roof cut-out/skylight at Castle Heights Elementary School (1951, right). Source: LAUSD, 2014.

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ROOF FORMS AND FEATURES

Character-defining roof features include the roof shape and form, height, pitch, eave treatments, as well as a variety of decorative features such as rafter tails and brackets, cupolas, towers, and dormers. Sheathing materials, such as clay tile, slate, wood, or metal, as well as their profile and patterns, might also be character defining. Features to identify, document and retain include the height/massing, form (e.g., flat, gabled, hipped), and eave treatment (e.g., wide overhanging cantilevers or shallow eaves with decorative elements). The character-defining features of arcade or covered walkway roofs should also be documented and considered in project planning.

Recommended Approaches, Roof Forms and Features:

- Historic roof features should be reinforced and repaired where possible.
- If historic materials are extensively deteriorated or missing, replace in-kind or with compatible substitute materials, selected in conjunction with a qualified historic preservation professional; replacements should match existing appearance (dimensions, profile/patterning, texture, and color). If using identical materials is not technically or economically feasible, select a compatible substitute material replicating the appearance of the original (in terms of dimensions, profile/patterning, texture, and color).
- To replicate missing features, design of replacement features should be based on physical/documentary evidence; avoid using conjectural evidence.
- For projects with components on or around roofs, avoid obstructing, covering, or damaging important roof features or adversely impacting roof detailing and design.
- The juncture of the roofline and exterior wall is an important part of the building's appearance. Running conduit beneath eaves near this juncture should be avoided. It is preferable to run conduit along the building's base and conceal the lines behind landscaping, where possible.



Figure 17. Shallow closed eaves and hipped-and-gable roof, clad in clay tiles, Point Fermin Elementary School, Administration Building (1917–1925; remodeled 1936). Source: LAUSD, 2010.

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FAÇADE TREATMENTS

Most historically significant LAUSD school buildings, in particular for signature buildings such as administration buildings, auditoriums, or main classrooms, will include façade treatments that uniquely denote their architectural style or era. Such treatments might include smooth stucco sheathing for 1920's Spanish Colonial Revival or 1930's Streamline Moderne styles, polychromatic, patterned brick for period-revival styles, or combinations of brick, steel, stucco, windows, and wood for Mid-Century Modern style postwar schools. Doors and framing are also important aspects of the façade's appearance; this can include doors themselves, as well as transoms, sidelights, thresholds, or pilaster, entablatures or other decorative framing elements. (Windows, also an important element of many school facades, are discussed in Section IV.)

Even for buildings of the same style, much variation exists. As previously noted, the first step is to identify and document character-defining features and elevations. This will allow for successful retention, maintenance or sensitive in-kind replacement of important features. Where portions of exterior materials, cladding and other elements must be replaced, new materials should match the existing to the maximum extent possible; re-creations should be based on physical or documentary evidence of the original.

Recommended Approaches, Façade Treatments:

- For wood: deteriorated wood siding or elements should be repaired by patching or piecing in, or through consolidation with individual pieces. Wood features that are exposed to the elements, such as beams or rafter tails, can be treated with preservatives to prevent deterioration.
- For masonry: deteriorated masonry can be repaired by patching or piecing in, or through consolidating individual masonry units. Ensure that new mortar matches the existing in color, texture, strength, and width/profile of the joints. Clean masonry surfaces using the gentlest means possible, such as low-pressure water, gentle detergents, and natural bristle brushes.



Figure 18. Generous expanses of fenestration, at times reaching the roofline, are typical of Mid-Century Modern schools; Grover Cleveland Senior High School (1959/1960). Source: LAUSD, 2014.

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Recommended Approaches, Façade Treatments (continued)

- For brick/masonry: identify mortar and joints and repoint where evidence exists of deterioration. This might include cracks, chipping, and erosion of mortar. Duplicate original mortar in width and joint profile, as well as color, texture, and strength.
- For stucco: where necessary, deteriorated stucco should be removed and reapplied to match the existing in texture, thickness, and color.
- Where there is extensive deterioration of original character-defining features, in-kind replacement may be appropriate. Widespread replacement is only recommended when the original fabric is deteriorated beyond repair. New materials should match the originals as closely as possible.
- If a material was originally not painted, such as stained wood, brick, stucco, or tile, the material should remain unpainted. The original finish/treatment is considered a character-defining feature.
- Removal of incompatible alterations from the past and restoration of original materials and features are encouraged. Restoration of original features should be based on documentary evidence.
- Repaint masonry, wood, and metal if these surfaces were originally painted and if they are in need of re-finishing. Preparation of surfaces, including the removal of paint, should be carried out with the gentlest means possible. The use of electric sanders, chisels, or chemical strippers is not recommended. Harsh methods can result in damage to historic materials and fabric.



Figures 19. and 20. Façade treatments of Hollywood High School (left) and Eagle Rock Elementary School (right). Source: SWCA Environmental Consultants (left), LAUSD (right).

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EXAMPLES OF CHARACTER-DEFINING SITE PLAN DESIGN AND LANDSCAPE FEATURES



Figures 21. and 22. Circular spoke-like plan and extensive network of stylized arcades, Chatsworth High School (1963). Source: LAUSD, 2010.



Figures 23. and 24. Spiral plan and landscaped courtyards of Narbonne High School (1956). Source: LAUSD, 2012.



Figures 25. and 26. Character-defining site plan features of the postwar finger-plan school often include axial classroom wings, lined with open courtyards and connected by arcades. 156th Street Elementary School (left) and Daniel Webster Middle High School (right). Source: LAUSD, 2014.

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Design Guidelines and Treatment Approaches for Historic Schools

SITE PLAN DESIGN AND LANDSCAPE FEATURES

Unified campus design and site planning, including the purposeful integration of buildings with landscaping and outdoor spaces, has been the cornerstone of LAUSD school planning ideals since the Progressive Era. With the objective of providing students with ample opportunities for viewing and enjoying outdoor courtyards, recreational and gathering areas, LAUSD campuses and classrooms have become increasingly integrated into outdoor spaces through the decades. Beginning in the 1930s and taking root in the postwar period, the norm became spreading out the campus in one-story buildings, arranged on axis, connected by outdoor corridors, and oriented toward designed courtyards and landscape. As a consequence, one important character-defining feature of many historically significant postwar schools includes the site plan itself, including the spatial configuration of buildings and outdoor spaces.

For these campuses, buildings, circulation corridors (such as arcades), outdoor spaces (such as courtyards and gathering areas), and landscaped features are highly representative of LAUSD design ideals of their era. The identification and documentation of these features by a qualified architectural historian represents a critical starting point for master planning projects, or for projects that seek to reconfigure buildings and/or structures or to remove original site plan features, arcades, courtyards, landscaping, or hardscaping.

Recommended Approaches, Site Plan Design and Landscape Features:

- Identify and maintain significant spatial relationships between buildings and landscaping. Building plans often intentionally created spaces for courtyards. New construction should not interrupt designed open spaces; identify alternative areas for new construction and additions.
- Identify opportunities to remove underutilized, nonoriginal/temporary buildings currently occupying areas originally designed as open space.



Figures 27. and 28. Arcades, one- to two-story classrooms, looking out onto landscaped courtyards, and ample outdoor spaces are among the signature LAUSD ideals for the postwar school. Chatsworth Senior High School (1963, left) and Leapwood Elementary School (1962, right). Source: LAUSD, 2014.

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Figures 29. and 30. Topanga Elementary School (1953/1955). Source: LAUSD, 2014.

Recommended Approaches, Site Plan Design and Landscape Features (continued)

- Should it be necessary to replace character-defining hardscaping, such as original walkways, planters, or benches, replace in-kind and to match original in appearance and in use.
- New paving should be compatible with existing historic paving in terms of materials, patterning and design, color, and overall spatial relationships—axial, curving, etc.—with neighboring features. Vary the color and size of mortar to distinguish new areas from historic areas of hardscaping.
- Work should be undertaken in such a way that, if removed in the future, the integrity of the property and its environment would not be impaired.
- Identify opportunities to add landscaping; new landscape features should be compatible with scale and style of the campus overall. Protect and maintain significant plantings and landscaping.
- Irrigation: Installation and placement should be planned to result in the least possible impact to original hardscaping/landscaping features.
- Not recommended: replacing planting or trees with hardscaping, such as concrete or asphalt. Retain uses of outdoor spaces and landscaping/hardscaping features.



Figures 31. and 32. Outdoor assembly areas, Webster Middle High School (left) and Grover Cleveland Senior High School (right). Source: LAUSD, 2014.

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INTERIOR SPACES AND FEATURES

Character-defining interior features and spaces might range from public reception areas and lobbies, in particular in administration buildings and auditoriums, to staircases, hallways and corridors, classrooms, entrances, and restroom facilities. To avoid potential adverse impacts to character-defining interior spaces, important materials, design features, and finishes that comprise these spaces should be identified, documented and considered in upgrade projects involving interiors.

Recommended Approaches, Interior Spaces and Features:

- Early in the process, a qualified architectural historian should identify and document, in digital photography and an MFR, primary and secondary character-defining features on interior spaces. This information will provide the data necessary to evaluate potential project impacts to significant interior spaces.
- Character-defining features might include: windows with variations in glazing, wall materials, finishes, and detailing; doors and related features; baseboards, molding and framing; porcelain water fountains, etc.
- For projects involving identified character-defining interior features, avoid removing, obstructing, or damaging significant spaces, materials, finishes, and detailing.



Figures 33. and 34. Character-defining interiors: Marshall High School Administration Building, lobby (left) and Venice High School WPA mural by Grace Clements and Helen Lundeberg. Source: ICF Jones & Stokes for LAUSD, 19 December 2008, "John Marshall High School Historical Resources CEQA Analysis for Fire Alarm System Upgrade Project" and 13 July 2009, "Venice High School HVAC Project CEQA Analysis."

IV. Recommended Approaches: Upgrade and Modernization Projects

1. WINDOW REHABILITATION

Fenestration is one of the most important character-defining features for a historic building. Contributing elements might include the window type, its glazing and opening size and shape, framing materials, profile and thickness of framing and muntins, as well as decorative molding or detailing.

A common misconception is that historic windows cannot be brought up to today's energy efficiency standards. However, in projects involving windows that are principal character-defining features, options for meeting energy efficiency requirements through project design should be explored, including quantifying/improving performance standards of historic materials or other features. The California Historical Building Code offers flexible, performance-based standards for meeting code requirements while also retaining important character-defining features of historically significant schools (the California Historical Building Code follows this document as Appendix A).

Preferred Approaches, Window Rehabilitation:

- A qualified architectural historian should identify and document character-defining window features early in project planning process, in order to plan for their retention.
- Identify, retain, repair, and preserve character-defining windows and their functional and decorative features. This includes window location and size, frame materials and design, sash types, muntin patterns, profile, and thickness, glazing, and sills, as well as paneled or decorative jambs/molding.
- If possible, retain or re-use existing hardware. Should replacement be necessary, match new hardware to existing in terms of basic stylistic detailing, materials, and finishes.
- Repair window frames and sash by patching, splicing, consolidating, or reinforcing. Depending on condition of materials, this might include in-kind replacement with compatible substitute materials; substitutes should match appearance of originals.



Figures 35. and 36. Classroom windows at Topanga Elementary School (1953) and Leapwood Elementary School (1962).
Source: LAUSD, 2014.

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Figures 37. and 38. Expanses of windows often mark the locations of classrooms inside. Baldwin Hills Elementary School (1949, left), and Orville Wright Middle High School (1948, right). Source: LAUSD, 2014.

Alternative Approaches, Window Rehabilitation:

- Where repair is not technically or economically feasible, replace windows in-kind, taking care to match originals in opening size/shape, single pane or divided lights (with true divided lights replaced in-kind), materials and treatment, configuration, type, framing (profile and thickness), and decorative detailing.
- Should replacement of an entire window be necessary, match original in materials, sash, and pane configuration, profile and thickness, as well as other design details.
- Secondary elevations and non-character-defining windows offer the best options for window replacement.
- Where windows must be replaced, sample window and project design should be reviewed by qualified architectural historian and/or historic architect.
- Retain original opening size and shape, as well as original window frames, detailing, and depth of recessing within wall plane.

Not Recommended, Window Rehabilitation:

- Wholesale / large-scale replacement of windows is not recommended. Pursue alternative, performance-based standards through the State Historic Building Code, which offers flexibility on energy standards for qualifying buildings.
- Avoid double-glazing or tinting. For improved energy efficiency, investigate use of thermal coated glass. Maintain appearance/function of original.
- The use of faux muntins to simulate true divided-light windows is not recommended.
- Replacement of original wood- or steel-frame windows with dual-pane vinyl windows is not recommended. Pursue performance-based standards through the State Historic Building Code, which offers flexibility on energy standards for qualifying buildings.



Figure 39. Removing inoperable HVAC units and returning windows to original use can greatly enhance a historic school building. Image on left shows HVAC unit currently in place at Castle Heights Elementary School; image on right simulates the building's appearance following replacement of HVAC unit. Source: Architectural Resources Group, 2014.

Project Scenarios, Window Rehabilitation:

- HVAC installation: Avoid removing windows or transom lights to accommodate HVAC components.
- Window Mounted Air Conditioning Units: In cases where air-conditioning units replaced original windows (but units are now inoperable), consider removing out-of-date components and restoring original windows to match existing (in terms of materials, framing, function, openings, and glazing).
- Energy efficiency: Window frames in need of maintenance/repair are often the unseen source of energy loss. Investigate energy efficiency improvements through repairs to window frames, replaced/upgraded weather stripping, insulation, or use of interior blinds as alternative to replacement of original windows.
- Security: Should installation of security grilles be necessary, avoid damage to historic window surrounds and framing.
- Seismic Upgrades: Shear wall needed? Avoid removing character-defining windows on primary elevations where possible. Rework interior plan to avoid large-scale removal of windows. Use interior bracing or, if necessary, shotcrete for added seismic stability.
- Painting: Preparation work should use the gentlest, least invasive means possible (see Hazardous Materials section for information on lead paint removal). Remove damaged or deteriorated paint only to the next sound layer of paint using the gentlest method possible. Study and use compatible paint coating systems; it is preferable to paint with colors that are historically appropriate to the period and style. Do not paint window frames that were not originally painted (i.e., stained wood, brick, or masonry, etc.).

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2. HVAC UPGRADES AND INSTALLATION

If not carefully designed and planned, HVAC upgrades and installation can impact a variety of character-defining features. The placement of ductwork, registers, vents, and units can change the appearance of important interior spaces as well as the exterior. Early project review by a qualified architectural historian or preservation professional will help avoid visual impacts to character-defining spaces and features and therefore minimize impacts to historic resources.

Recommended Approaches, HVAC Upgrades and Installation:

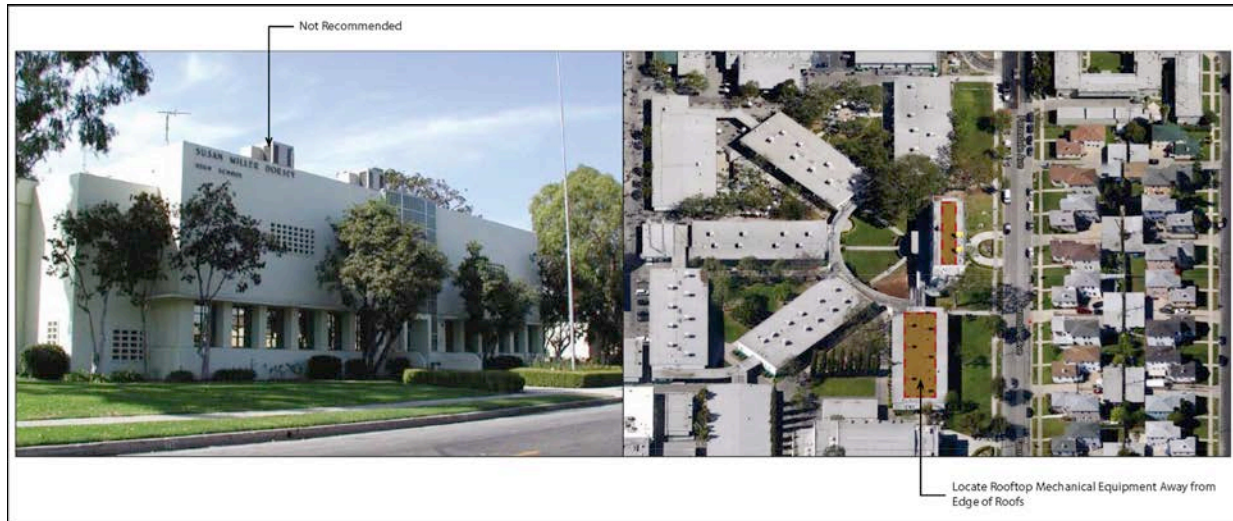
- Early in the process, a qualified architectural historian should identify and document, in digital photography and an MFR, primary and secondary character-defining elevations and features.
- Explore options for placing and installing HVAC components on secondary elevations or out-of-the-way spaces.
- Anticipate and plan for placement and installation of HVAC components that avoids damage or obstruction of character-defining features or visual impacts to character-defining spaces and materials.
- If a new HVAC system is required, identify and pursue alternatives for installation that result in the fewest possible changes to the building's floor plan, exterior elevations, and historic fabric.
- Avoid obstructing, removing, or damaging historic materials and features to the maximum extent feasible.
- If the interior of classrooms and hallways includes important character-defining features, including artwork, care should be taken to not destroy, remove, or obstruct these features in the course of installing supply and return air ducts.



Figures 40. and 41. For historically significant buildings, rooftop set-back of HVAC units helps mitigate visual impacts. Colfax Avenue Elementary School (left) and Kester Avenue Elementary School (right). Source: LAUSD, 2014.

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Figures 42. and 43. Where possible, locate rooftop mechanical equipment away from edge of roof to minimize visual impacts. Susan Miller Dorsey High School, Los Angeles. Source: LAUSD and Architectural Resources Group, 2014.

Recommended Approach, HVAC Upgrades (continued)

- Re-use existing paths and systems to the maximum extent feasible for ductwork, registers, and intake/exhaust paths.
- Ductwork should be routed, configured, and treated to create minimal visual impacts to character-defining features and spaces. Ductwork and registers should be painted to match surrounding walls in texture and color.
- Registers: Re-use existing where possible; for placement of registers on ceilings/walls, avoid removal or obstruction of historic features. If installed on ceiling between beams, center registers or follow basic design configuration to make new registers as compatible with existing historic fabric as possible.
- Alternatives to drop ceilings include: (1) use of well-designed soffits to enclose ductwork; if soffits are created, leave adequate space so as not to interrupt views in and out of neighboring windows; (2) use of existing beams or features to conceal ductwork; (3) leaving ductwork exposed is often an effective approach; ductwork should be sensitively placed, designed, and painted to match existing.
- Drain line: should be covered and painted to match the surrounding surfaces; and placed in an out-of-the-way area with limited visibility.
- For energy efficiency improvements, calculate the performance standards of existing rooms and spaces, including wall thickness and materials, roof eaves or porticos, as well as interior features such as blinds or shades.
- Where possible, identify opportunities to remove inoperable HVAC units and restore original features (for example, remove inoperable HVAC systems from in-filled windows and restore window to match existing).

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Not Recommended, HVAC Upgrades:

- Avoid the removal or in-filling of existing windows for HVAC components. Should it become necessary as the only feasible solution, avoid removal or infill window on a primary elevation and retain original window opening dimensions, casing, and detailing, such as light divisions.
- Do not obscure, obstruct, or destroy original artwork, such as murals, or features, such as molding, ceiling beams, or windows, in the installation of HVAC components.
- Not recommended to install drop ceiling (i.e., lowering the ceiling height to enclose new systems) to hide HVAC components. Should drop-ceilings offer the only feasible solution, leave a minimum of 12-18" between drop ceiling and neighboring windows. Explore option/feasibility of leaving ductwork exposed as alternative.

Recommended Locations of HVAC Components:

- Group system components in areas with similar systems already installed; explore secondary elevations and/or use of utility sheds for installation of new units.
- Vertical runs of ductwork: install in areas where ducts will not obscure, destroy, or damage character-defining features (such as inside of closets, wall cavities, service rooms, or corners). Horizontal and vertical placement: align components—soffits, ducts, registers, or vertical vents—with planes/configuration of walls.
- Interior installation: Identify hidden, out-of-the-way spaces (attics, basements, crawl spaces, closets, utility spaces) for placement and installation of HVAC components.
- Exterior installation: If roof installation offers the best alternative, attempt to set back unit to avoid visual impacts to the roofline, particularly as perceived from the public right-of-way, to the maximum extent practicable. For roof installation, where possible, install behind existing parapets or features that conceal the unit from the street view.



Figures 44. and 45. In this assembly hall, ducts and vents were placed and installed as unobtrusively as possible to avoid adverse impacts to many important character-defining interior features. Source: ICF Jones & Stokes, 13 July 2009, "Venice High School HVAC Project CEQA Analysis."

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Figures 46. and 47. Where possible, removing inoperable HVAC units and restoring windows to match originals enhances the appearance of historically significant LAUSD buildings. Source: LAUSD and Architectural Resources Group, 2014.

Recommended Locations for HVAC Components (continued):

- Exterior: Should exterior/ground-level installation provide the best design option, select a secondary elevation for installation of units or a utility shed, as determined in conjunction with qualified architectural historian. Consider screening by landscaping or other means.
- One-story building: Avoid roof placement if possible. If roof placement offers best option, set back HVAC unit to minimize visual impacts. If decorative parapet or roof feature is present, place unit behind the feature to conceal it from view.
- Two-story building: If set back from roof's edge, toward center, and not visible from street, roof placement offers a good alternative for placement of HVAC unit.
- Rooftop installation of exhaust vents is an acceptable alternative; vents should be as inconspicuous and set back as possible. Avoid visibility from the street-level view.
- For exhaust vents, the building base often provides a good location for an exhaust vent. Should this solution offer the preferred design, the exhaust vent should be located on a secondary elevation, screened, and concealed with landscaping.
- Drain lines: vertical venting may be provided for by a small chase, installed in an out-of-the-way corner, to be selected in conjunction with qualified architectural historian.

Recommendations for Installation Process:

- Avoid making new penetrations or openings on exterior walls by utilizing existing outlets, openings, and paths.
- Using existing vents and wall openings is ideal. New vents should be painted or finished to match existing similar features.
- Where wall penetrations are necessary, patch, repair and finish to match existing.

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3. AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE AND ACCESS

Given the variability of historic buildings and the importance of achieving ADA compliance as well as CEQA compliance, projects should generally be considered on a case-by-case basis in conjunction with a qualified historic preservation professional. These guidelines offer a starting point for project design that achieves ease of access while also protecting historically significant schools.

Recommended Approach, ADA Compliance and Access:

- Utilize State Historic Building Code to achieve ADA compliance while also retaining important character-defining features and meeting historic preservation goals.
- Review by qualified architectural historian and/or historic architect will identify opportunities to achieve project objectives while avoiding impacts to character-defining features and elevations.
- Identification of primary and secondary character-defining features and buildings by a qualified architectural historian should include significant site plan design and landscape features.
- Install ADA ramps, lifts, and elevators in such a way that character-defining features, spaces, and finishes are preserved. Consider alternatives and options such as locating ramps, lifts, elevators in secondary or non-character-defining spaces.
- In planning for ADA-accessible path of travel, install/modify access ramps in such a way that character-defining features, materials, spaces and finishes are preserved.
- In planning for path of travel, avoid removing historic site features, such as hardscaping, landscaping, setbacks, plantings. Explore alternative locations for path of travel that do not result in the removal/destruction of character-defining features. Signage: design signage to be compatible with historic scale and style; avoid removing, damaging or obstructing character-defining features.



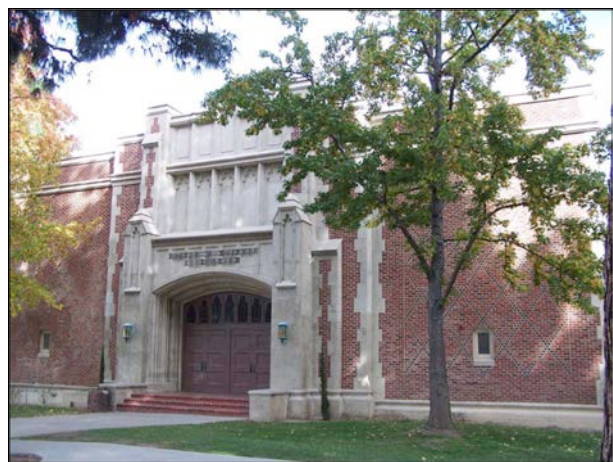
Figures 48. and 49. If ADA-compliant access cannot be accommodated at primary entrance without damage to character-defining features, consider using the California Historical Building Code and its alternatives for ADA-compliant access on secondary entrances. Install ADA-accessible ramps in a way that allows for ease of access while also limiting visual obstruction of important character-defining spaces and features to the maximum extent feasible. Source: LAUSD, 2014.

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Recommended Approach, ADA Compliance and Access, Circulation Issues:

- Door widths: Should it be necessary to widen the opening of an original character-defining door, explore options for reducing overall impacts.
- Hardware: Replacement of historic hardware might be necessary to achieve ADA compliance. Should historic hardware be removed and replaced, match finishes for compatibility with existing hardware.
- Handrails: Explore options for retaining original handrails while installing ADA-compliant handrails (parallel handrails, handrails on opposite site of corridor, etc.). Should it be necessary to remove historic handrail, document the historic feature and finish the new material to match existing.
- Auditorium Seating and Stage Access: In the case of character-defining interior spaces/seating in auditoriums, identify best project options for ADA seating access and stage ramps or lifts in conjunction with qualified architectural historian and/or historic architect.
- Elevators: Best locations should be explored on a case-by-case basis, according to project needs, the character of significant interior spaces, and availability of secondary interior or exterior spaces, in conjunction with a qualified architectural historian and/or historic architect. One option for elevator placement includes closet spaces that occupy the same location on multiple stories.
- Ramps: In terms of design and scale, ensure that access ramp is appropriately styled and scaled to historic building and finishes are matched to existing. The ramp and railing should be sited and installed in such a way that minimal removal or obstruction of historic materials and features occurs.
- In conjunction with qualified historic preservation professional, if installation of ramp on primary elevation would negatively impact the integrity of the historic resource, explore options for ramp installation on equal, secondary entrance.



Figures 50. and 51. The decorative, monumental entrances of some historic schools pose design challenges for ADA compliance; with input by a qualified preservation professional, careful project design, and applications of the California Historical Building Code where appropriate, solutions can be identified that achieve project objectives while also preserving historic resources. Morningside Elementary School (1915, left) and Marshall Senior High School (right). Source: LAUSD.

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ADA Compliance and Access, Restrooms:

- A qualified architectural historian should identify and document, in digital photography and an MFR, character-defining features early in project planning process, in order to plan for their retention.
- In upgrades for ADA accessibility, where possible, retain original character-defining features and materials (i.e., original tile, floors, marble partitions, etc.).
- Where intact character-defining features are present in historic bathrooms but project requires removal and replacement, explore overall project options for retaining at least one example of a historic bathroom.
- New bathroom should follow/exhibit compatibility with the character of the school.

4. HAZARDOUS MATERIALS ABATEMENT

The identification and abatement of hazardous materials, whether in lead paint or asbestos-containing materials, must be carried out by a qualified specialist in hazardous material identification and abatement.

Recommended Approaches, Hazardous Materials Abatement:

- Where required, hazardous materials abatement should be carried out using methods that are the least invasive but also effective.
- Before any abatement work begins, a qualified architectural historian will photograph/document project area, note primary and secondary character-defining features; qualified architectural historian and/or historic architect will provide input on carrying out abatement project, from beginning to conclusion, with the least possible impact to historically significant features.
- In addition to documenting character-defining features directly impacted by the project, the qualified architectural historian will identify and document features in surrounding areas to plan for and avoid any impacts or damages that could occur in the course of the abatement process.

Not Recommended, Hazardous Materials Abatement:

- The use of power sanders or chisels for the removal of paint.
- The use of high-pressure cleaning for character-defining concrete or hardscaping.

Project Scenarios, Hazardous Materials Abatement:

- A qualified architectural historian should identify and document, in digital photography and an MFR, character-defining features early in project planning process, in order to plan for their retention.
- Lead-based paint: The preferred treatment for lead-based paint is to encapsulate, if possible. An acceptable method for lead-based paint abatement is to remove by the gentlest means possible.
- Asbestos abatement (in linoleum flooring, siding, original ductwork). Should specialist determine that asbestos is present and in need of removal, ensure that all steps of abatement project are planned to avoid damage, removal, or destruction of original historic materials and features. Patch and match existing.
- Plan and consider each step of the project from beginning to conclusion. Does linoleum flooring need to be removed? If so, will this necessitate the removal of character-defining baseboards, chair railings, or other features?

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5. FIRE & LIFE SAFETY UPGRADES (1-HOUR CORRIDORS, STAIRWELLS, SPRINKLER AND ALARM SYSTEMS)

Recommended Approach, Fire & Life Safety Upgrades:

- A qualified architectural historian should identify and document, in digital photography and an MFR, character-defining features early in project planning process, in order to plan for their retention.
- Early in the process, identify alternatives for achieving project objectives while avoiding removal or damage to historic materials to the greatest extent possible. Traditional approaches to achieving one-hour corridors, for example, such as removal of interior corridor classroom doors and transom windows, will require alternative actions where those features are character defining.
- Emergency egress hardware: if upgrade involves the removal of original hardware, select hardware components that are compatible in terms of style and materials with historic hardware; finish new hardware with compatible finishes/colors.
- Fire alarms, interior and exterior, interior fire-sprinkling: Re-use existing conduit, runs, and wall penetrations for installing new components and wiring, unless the existing components were inappropriately located. If inappropriately located, consider relocating more compatibly with historic elements and repairing or replacing in kind any significant features that had been previously damaged or removed.
- Lighting: new or supplemental. To the extent possible, place new fixtures in unobtrusive location. New lighting should be compatible in design, scale, and detailing but should not present a false historic appearance. Avoid removing historical materials and features in the installation of new lighting; following installation, where necessary, patch and repair to match existing.
- Signage: ensure that new signage is compatible with the school's historic character in terms of style and scale. Avoid the removal of historic fabric, including landscaping/hardscaping.



Figures 52. and 53. Re-use existing conduit connections and wall penetrations wherever possible. Source: ICF Jones & Stokes for LAUSD, 19 December 2008, "John Marshall High School Historical Resources CEQA Analysis for Fire Alarm System Upgrade Project."

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Project Scenarios, Fire & Life Safety Upgrades: 1-hour corridors

- In project design, one size doesn't fit all. Each project site will present different opportunities and constraints to achieve project objectives. Study alternatives in conjunction with a qualified historic architect and/or architectural historian; incorporate a number of available options in order to achieve the required 1-hour life safety objective for corridors.
- Balance available options for upgrades, including sprinklering (partial or full), alarm systems, special fire-retardant paint.
- To the extent possible, retain original doors and transoms. Transoms may need to be secured shut to achieve objectives.

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6. SEISMIC UPGRADES

Recommended Approaches, Seismic Upgrades:

- A qualified architectural historian should identify and document important character-defining features of the project area (in terms of overall character and design composition) that should be considered in the planning of seismic upgrades.
- Early in the project planning process: in conjunction with a qualified historic preservation professional and structural engineer with demonstrable experience in historic preservation, identify opportunities and alternatives for achieving upgrade goals while limiting visibility of seismic improvements, to the greatest extent possible.
- In design of seismic upgrades, installation and placement, avoid removal or destruction of historic materials and features.
- If exterior bracing is determined to be an appropriate solution, look for opportunities to place on non-significant or secondary elevations, in particular for elevations visible from the public right-of-way. Consider how the bracing will be attached to the historic building, avoiding unnecessary damage and removal of historic features and fabric and leaving as much of the character-defining design visible as possible.
- In order to avoid interrupting the rhythm and design of exterior, explore options to place seismic bracing on the building interior rather than exterior.
- Exterior bracing: If exterior bracing is necessary, attempt to incorporate design elements that are compatible with the character of the building.
- Exposed bracing that strikes a bold, structural tone might be appropriate for certain styles and building types. Other building types/styles may call for more subtle bracing elements.
- Alternatives: shotcrete applied to interior walls can provide additional structural support. If shotcrete is used, the historic window and wall configuration should be duplicated as much as possible, and features such as window casing, window depth, and baseboards carefully considered. Finishes should be compatible with surrounding historic fabric and finishes.
- Windows and shear wall: try not to remove character-defining windows as part of shear wall construction. Flexibility exists depending on the relative importance of the window or feature (whether primary or secondary character-defining features or elevations).
- If it becomes absolutely necessary to remove windows in the course of seismic bracing, identify and document, in conjunction with qualified architectural historian, which windows provide the best options for removal that minimizes impacts to the historic resource.
- Not recommended: infill of windows with visible concrete masonry units (CMUs), indiscriminate use of anchor bolts on primary exteriors, removal of historic features such as cornices that could be safely braced and anchored to the building.

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Figures 54. and 55. If needed, identify secondary elevations for the placement of storage sheds and/or additions. Burton Avenue Elementary School, Panorama City. Source: LAUSD and Architectural Resources Group, 2014.

7. ADDITIONS AND NEW CONSTRUCTION

Recommended Approaches, Additions and New Construction:

- Early in the process, consult a qualified architectural historian to review project plans and identify best options for expanding buildings or adding new space that minimize impacts to historic resources, including campus buildings and associated site design and landscaping features.
- The qualified architectural historian will identify and document important features that should be considered in the design of building additions and new construction. These features include building siting/placement, size, scale/height, roofline character and features, features/elements defining horizontal lines of buildings, windows (type, opening types and sizes, rhythm/placement), exterior wall planes and receding/projecting planes and spaces, materials, and style.
- New additions should be compatible with but differentiated from historically significant properties and site features.
- Incorporate design elements such as set-backs or hyphens in order to delineate old and new construction.
- Maintain the roofline of historic buildings and structures.
- Where possible, identify opportunities for removing underutilized/temporary buildings that interrupted the original site plan. These can include U-shaped, L-shaped, H-shaped buildings designed to create courtyards and outdoor areas. Restore original layout where possible.

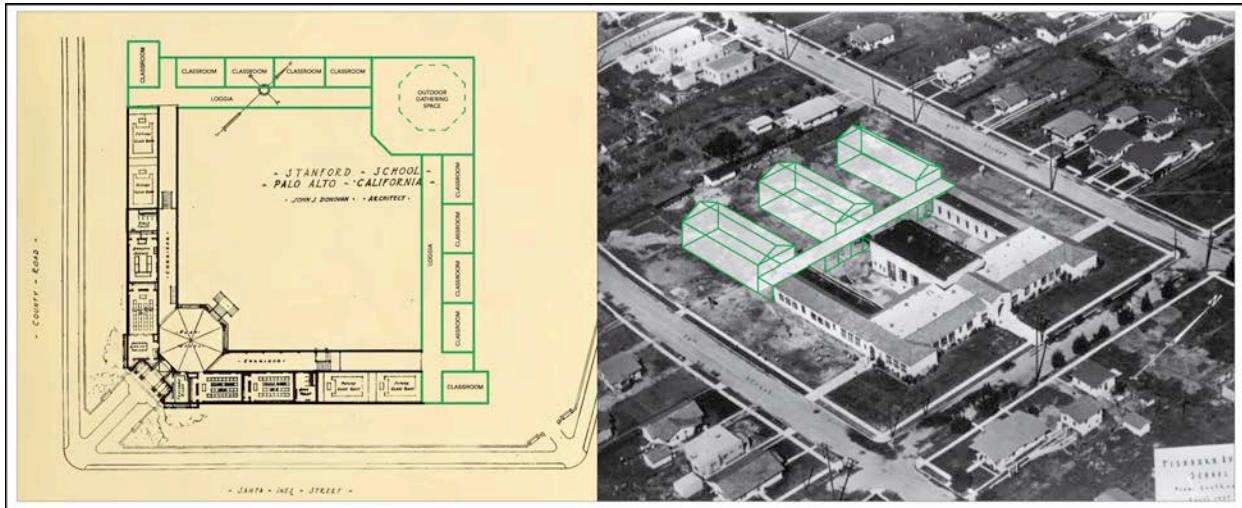
Not Recommended, Additions and New Construction:

- In general, avoid adding additional, higher stories to historically significant buildings; identify opportunities for increasing building footprint or expanding elsewhere rather than adding stories.

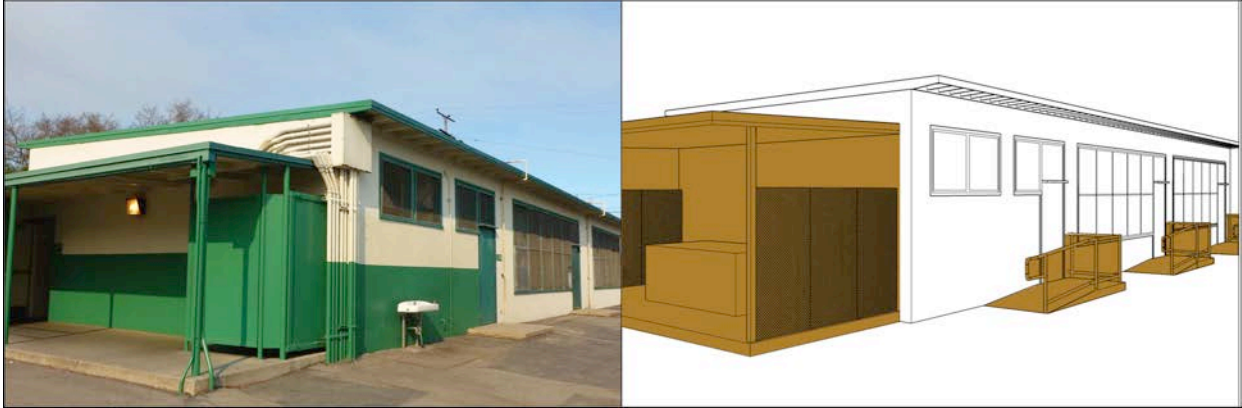
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- Additional stories may sometimes be appropriate if they can be set back on the roof so as to minimize visibility and impact.
- Avoid creating a stylistic carbon copy of original historic building; make the new construction compatible but differentiated. Modern (i.e., current) design can be appropriate if it is contextually sensitive, in terms of placement, massing, scale, materials, etc.
- Additions and new construction should avoid overwhelming the historic resource, in terms of both scale and design.



Figures 56. and 57. When planning new construction or additions, consider the important character-defining features of the extant site plan and maintain open spaces and indoor-outdoor connections where feasible. Source: LAUSD and Architectural Resources Group, 2014.



Figures 58. and 59. Identify secondary elevations for the placement and installation of mechanical equipment and storage sheds. Avalon Gardens Elementary School. Source: LAUSD and Architectural Resources Group, 2014.

8. MECHANICAL SYSTEMS: PLACEMENT AND INSTALLATION

Recommended Approach, Mechanical Systems:

- Attempt to limit visibility of mechanical equipment installed on exterior perimeter walls or beneath the roof.
- Where possible, identify secondary elevations for the placement and installation of mechanical equipment.
- For fastener installation, use expanses of grout or mortar rather than brick, stone, tile, or masonry for drilling or wall penetrations.
- Identify and use existing fasteners, attachments, or wall penetrations to the maximum extent feasible.
- Following drilling or installation/removal of wall mounts/fasteners, repair surrounding surfaces immediately to match existing in color, finish, profile, thickness and strength.
- Conduit: generally acceptable to mount conduit on easily repairable surfaces; these can include plaster, grout, non-decorative painting, etc.

Not Recommended, Mechanical Systems:

- Avoid drilling into any area of brick, stone, masonry, or tile. Choose area of grout or mortar for installation of fasteners.

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V. Themes of Significance, Architectural Styles, and Character-Defining Features

According to CEQA, significant adverse impacts will result if a historic resource is altered to such a degree or in such a way that it loses integrity and the ability to convey the reasons for its significance. The first step to avoiding this outcome is (1) identifying the character-defining features that lend the historic resource its significance and (2) planning for the retention, rehabilitation, and/or sensitive replacement of such features. While all projects and historic resources are different, character-defining feature identification is the first step to successfully upgrading, repairing, and maintaining a historic resource.

The following sections outline the character-defining features for schools and campuses representing the four principal eras of LAUSD school design: (1) 1910-1933: Period-Revival Era of Open-Air Schools; (2) 1933-1945: Post-Long Beach Earthquake Schools; (3) 1933-1945: Early experiments in the Modern, Functional School Plant; and (4) 1945-1969: Postwar expansion and the Modern, Functional School Plants.

Contributing properties might include administration buildings, auditoriums, classrooms, gymnasiums and recreational fields, multipurpose rooms, shops, cafeterias, as well as designed landscape and site features, site plan, arcades and other outdoor circulation corridors. Depending on the school and campus, contributing features of a historically significant building can include a range of aspects and characteristics, from the overall site plan and massing of the buildings, to architectural details and ornament.

Specific character-defining features of the architectural styles typical of LAUSD schools follow. These include the eras of period eclecticism in the 1920's, the 1930's advent of Art Deco/Streamline Moderne and PWA Moderne styles, as well as pre- and post-World War II Modernism. The style most typical among postwar schools are variations of Mid-Century Modernism/Regional Modernism.



Figure 60. John Burroughs Middle School (1922). This Renaissance Revival–style school is one of the most intact 1920s schools in the district. Source: LAUSD, 2011.

Theme: LAUSD | Pre-1933 Long Beach Earthquake School Plants, 1910-1933

This theme reflects an important period for Los Angeles schools. First, it occurred after the Progressive Education Movement had triggered widespread reform of school design throughout the United States. This resulted in a more differentiated, expansive school plant, with program-specific buildings and classrooms. Second, this period occurred before a statewide overhaul of school building codes after the 1933 Long Beach earthquake.

This period also began as the 1920s ushered in a school building boom and period-revival golden age in Southern Californian architecture. The importance placed on public education was expressed through beautifully designed school buildings, often created by the region’s leading architects. Campus design became more unified, with elaborate approaches and entrances. The advent of more grand entrances, as well as the incorporation of separate auditoriums, sited for ease of public access, reflected a growing sense that public education was a community affair.

Replacing the big-block school, with internal corridors, was a generally lower-massed, spread-out campus. In some examples, designers replaced hallways with covered outdoor walkways. Building plans also evolved, as the traditional rectangular plan took on adjacent wings, in H-shaped, T-shaped, or U-shaped buildings that facilitated the creation of sheltered outdoor spaces and patios. Lower massing was particularly common for elementary schools. Because most pre-1933 schools were substantially remodeled following the Long Beach earthquake, intact examples from this era are relatively rare. It is common to find 1920s-era schools that were remodeled following the earthquake; such schools might exhibit the building plans and configurations typical of the 1920s but with 1930s PWA Moderne and Streamline Moderne detailing.

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Figures 61. and 62. *The expansive plan and Renaissance Revival-style of University High School (1924). Source: LAUSD, 2011.*

Character-Defining Features | Buildings/Structures:

- Articulated buildings plans, facilitating the creation of outdoor spaces (often T-shaped, E-shaped, U-shaped, and H-shaped plans)
- Generally low massing, usually one to two stories (with two to three stories more common for middle and senior high schools)
- Includes designed outdoor spaces, such as courtyards and patios, adjacent to classroom wings
- Exteriors usually lined with rows of grouped windows, including wood-framed multilight windows; expanses of windows often mark the location of classrooms
- Designed in popular period-revival styles of the era (including Spanish Colonial Revival, Renaissance Revival, Mediterranean Revival, and Collegiate Gothic)
- Often designed by prominent architects of the era

Character-Defining Features | Campus/District:

- Emphasis on a more spread-out site plan, with designed outdoor spaces
- More varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside)
- Might include an elaborate administration building, usually the focal point of the campus, as well as classroom wings, auditoriums, gymnasiums, and outdoor recreation areas
- Middle or senior high schools might include a gymnasium designed in the style of the campus overall

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Figures 63. and 64. Post-Long Beach Earthquake school: H-shaped plan and Mission Revival style of Reseda Elementary School (1936). Source: U.S. Dept. of Agriculture, historicaerials.com (left) and LAUSD (right).

Theme: LAUSD | Post-1933 Long Beach Earthquake Schools, 1933-1945

Following the 1933 Long Beach earthquake, state and city legislation regarding school building codes and practices shifted the character of LAUSD schools and campuses. Requirements of the Field Act (1934), such as maintaining one-story massing for elementary schools and no more than two stories for junior and high schools, mirrored reforms already under way. Classroom wings continued to be designed for connections to the outdoors, with L-, H-, U-, and T-shaped buildings accommodating sheltered courtyard and patio spaces. Continuing another trend under way in the 1920s, campuses displayed an increasingly unified site design, with sheltered corridors moving the hallways outdoors.

The advances of the Progressive Education Movement also continued to shift school plant design. Campuses were increasingly differentiated, with administration buildings, auditoriums and gymnasiums, separate classroom, shop, and specialty wings, and cafeterias. Adequate indirect lighting and ventilation were provided through the use of generous bands of windows, including multilight sashes, casements, and clerestories. Stylistically, these buildings were less ornamental than their 1920s period-revival counterparts. An emphasis was placed on traditional Southern Californian styles, such as the Spanish Colonial and Mission Revival. Other styles included Streamline Moderne, Art Deco, and Late Moderne. Much post-earthquake reconstruction was funded through the Public Works Administration (PWA), and many schools exhibit PWA Moderne styles.



Figure 65. Reseda Elementary School, 1936. The spare Mission Revival style was in keeping with the post-Field Act requirement for one-story massing and the post-Long Beach Earthquake trend to design in the “traditional Southern Californian” mode. Source: LAUSD.

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Figures 66. and 67. Hollywood High School (1935), shown in 1939 (left) and 2002 (right). Source: LAPL Photo Collection (left) and LAUSD (right).

Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools; reinforced concrete, steel- or wood-frame construction
- Classroom wings designed for access and views to outdoors—with variations including L-, H-, T-shaped plans; generous expanses of windows, including steel- and wood-framed windows, awning and hopper casements, and clerestories
- More streamlined and less ornamental than 1920s period-revival styles; emphasis on “traditional Southern Californian” styles; styles can also include PWA Streamline Moderne, Art Deco, Late Moderne, and proto-modern styles
- May have been partially or fully funded through the WPA (also referred to as the Public Works Administration, or PWA); WPA projects may include significant interior artwork such as murals, paintings and sculpture; may have been designed by a prominent architect of the period

Character-Defining Features | Campus/District:

- Unified site plan consisting of buildings and structures designed and sited according to their use; plentiful designed outdoor and landscaped spaces, for outdoor study, recreation and dining
- Might have connecting sheltered corridors throughout campus; expansive site plan
- Varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside); might include an administration building, near the campus entrance, made to serve as the focal point of the campus
- Campus often composed of groupings of classroom wings, auditoriums, gymnasiums, cafeterias, and outdoor recreation and dining areas; middle or senior high schools might include a gymnasium designed in the style of the campus overall

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Figures 68. and 69. Susan Miller Dorsey High School (1937) and its inventive site plan. Source: LAUSD (left) and Google Maps, 2013 (right).

Theme: LAUSD | Early Experiments in the Modern, Functionalist School, 1933-1945

Although this category shares general characteristics with the preceding theme (Post-1933 Long Beach Earthquake Schools), it is distinguished by an experimental approach to school design that emerged during the Great Depression. Such schools reflect the most avant-garde ideas of the era and the beginning of modern, functionalist school design.

Stylistically, the proto-modernist school need not be purely “modern” in the sense of lacking any ornamental detailing. The significant changes reflected a philosophy that went a step further than did the schools of the 1920s in designing for function and integrating school buildings with exterior spaces. During the postwar construction boom, many of the same ideas that characterized these experimental schools became the norm.

The notable differences between the two themes relate to scale, site plan, and functional, child-centered design. The proto-modernist school has an explicitly domestic scale, with low ceilings and lack of monumental design or massing. These schools generally exhibit a decentralized campus design, with a strong geometric patterning applied to the site plan. Classroom wings generally consist of one-room-deep rectilinear buildings, lined with adjacent patios and landscaping. Building plans clearly express their function, with (usually) one-story massing, generous expanses of glazing, window sizes and configurations tailored to sun patterns and doors opening directly onto patio areas and courtyards. The preferred typology was the early version of the “finger-plan” school, with rectilinear classroom wings extending from a central axis.

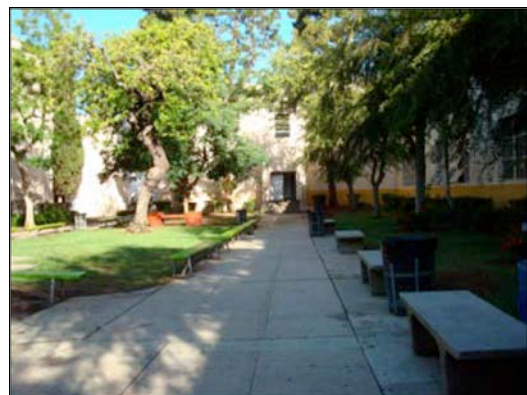


Figure 70. Modernist master Richard Neutra's Emerson Middle School (1937-1940). Source: LAUSD, 2011.

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Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools
- Usually reinforced concrete, steel- or wood-frame construction, clad in cement/stucco
- Classrooms are often single- or double-loaded finger-like wings, arranged along a central axis or semicircle
- Classrooms open directly onto patios/play areas through glass doors or movable walls
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms
- Windows are plentiful and include steel- and wood-framed multilight windows, in double-hung sashes, awning and hopper casements, clerestories, and fixed panes
- Displays an informal, nonmonumental scale and spare ornamental program
- Stylistically modern; might display influence of Late Moderne or PWA Streamline Moderne
- May have been partially or fully funded through WPA, 1935 to 1943; WPA projects may include significant interior artwork such as murals, paintings and sculpture
- May have been designed by a prominent architect of the period



Figure 71. Corona Avenue Elementary School (1935). Source: USC Digital Archive.

Character-Defining Features | Campus/District:

- A unified, nonmonumental, nonhierarchical site plan
- Displays inventive site plan incorporating buildings, landscaped courtyards, and circulation corridors into a unified campus design
- Swaths of landscaped patios and terraces adjacent to classroom wings; designed outdoor spaces, including patios, courtyards
- Use of outdoor corridors, with simple canopy supports and posts or *pilotis*, form links between classrooms and other buildings

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Figure 72. Emerson Junior High (now Middle) School, Richard Neutra, 1937, Los Angeles. This school is extant and located on Selby Avenue near Santa Monica Boulevard in west Los Angeles. Source: Julius Shulman Archives, J. Paul Getty Trust, Getty Research Institute.

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Figures 73. and 74. Condensed finger-plan of Baldwin Hills Elementary School. Axial classroom wings, one-story massing, swaths of landscaping and patios. Source: Getty Research Institute, Shulman Archives (left), Google Maps, 2013 (right).

Theme: LAUSD | Educating the Baby Boom: The Postwar Modern Functionalist School Plant, 1945-1969

By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). But, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion-like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s–1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school.



Figure 75. Orville Wright Middle School (1948–1952). Source: LAUSD, 2012.

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Figures 76. and 77. One-story massing and double-loaded axial classrooms, lined by landscaped courtyards, Grover Cleveland Senior High School (1959). Source: LAUSD, 2014.

Character-Defining Features | Buildings/Structures:

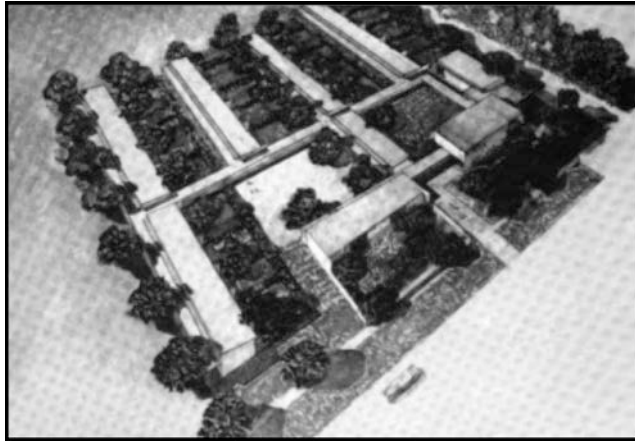
- Building plans and site design clearly express their function; classroom wings often exhibit one-story “finger-like” wings, arranged on an axis
- Easily identifiable indoor-outdoor spaces, connections to classrooms through the incorporation of patios, courtyards, and outdoor canopied corridors
- One-story massing, particularly for elementary schools; up to two to three stories for junior and high schools
- Building types and plans expressive of postwar ideals in school design; these can include (1) finger-plan schools (usually in 1940s through 1950s); (2) cluster-plan schools (beginning in 1950s); and (3) variations and combinations of these typologies clearly expressive of the ideals for informality, indoor-outdoor connections, and zoned planning for the site
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit/cross-ventilated classrooms

Character-Defining Features | Campus/District:

- Unified campus design includes most or all of the following attributes: lack of formality and monumentality; low massing (usually one stories for classrooms and up to two stories for auditoriums/multipurpose rooms); strong geometric ordering of buildings and outdoor spaces; decentralized, pavilion-like layout; rational, function-driven site design; buildings extend across the site; buildings are oriented to outdoor spaces (courtyards, patios, outdoor areas), purposeful indoor-outdoor integration
- Automobile traffic/drop-off areas separated from campus; linked to interior via extended canopied corridors; buildings often turn inward, toward green spaces and courtyards, lawns
- Outdoor corridors, sheltered beneath simple canopies, forming links between the buildings of the campus

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Figures 78. and 79. Neutra's conceptual sketch of Kester Avenue Elementary School and the current aerial view. Source: McCoy, Neutra (left) and LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011 (right).

Character-Defining Features | Campus/District (continued):

- Classrooms often consist of a series of axial, modular units; an informal, domestic scale for the buildings and campus might be especially evident in elementary schools
- Swaths of patios, terraces, and plantings adjacent to and alternating with buildings
- Generous expanses of windows, including steel- and wood-framed multilight windows, in awning and hopper casements, clerestories, and fixed panes
- Flat roof or broken-plane roof often used for lighting and acoustical issues
- Modular design, with a rhythmic, asymmetrical but balanced composition
- Usually displays a modern design idiom, usually either regional modernist (with use of native materials such as stone, brick, and wood siding and/or framing), International Style modernist, or, by the early 1960s, Late Modern (more expressive and sculptural); may have been designed by a prominent architect of the period
- Often associated with postwar suburbanization/growth near major employment centers (such as San Fernando Valley & southwest Los Angeles)
- Often built in residential neighborhoods on large expanses of land, with swaths of land devoted to landscape design and playing fields (in particular for high school campuses)



Figure 80. Orville Wright Middle School (1948-1952). Source: Getty Research Institute, Julius Shulman Archive.

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ARCHITECTURAL STYLES

Beaux-Arts Classicism & Neo-Classical Revival

Early twentieth-century buildings brought a new architectural vocabulary to LAUSD school design. The monumentalism and motifs of Beaux Arts Classicism accommodated a new scale for school building of two and three stories. This scale was demanded by expanding enrollment and a need for increased capacity and rooms differentiated by grade level and curriculum.

Beaux Arts Classicism and Neo-Classical Revival styles were especially favored by designers following the lead of McKim, Mead and White and other prominent national firms. The impressive porticos, with classical orders and colossal columns, advertised the importance placed on public education. Primarily of masonry construction, most of these schools fell victim to the 1933 Long Beach Earthquake. The San Fernando Middle School Auditorium, constructed as part of a 6-year high school in 1916, is one of the few remaining examples of this era.

Typical Character-Defining Features:

- Monumental scale
- Formal, symmetrical design composition
- Smooth stone, masonry, or concrete exteriors (often scored to resemble masonry)
- Elaborated entrance, often featuring portico with columns
- Classical detailing, such as use of gables and entablature, columns, and pilasters
- Multilight grouped windows with wood surrounds



Figure 81. Neo-Classical school design: San Fernando Middle School (1916). Source: Leslie Heumann & Associates and SAIC for LAUSD.



Figure 82. Detail, San Fernando Middle School (1916). Source: Leslie Heumann & Associates and SAIC for LAUSD.

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Indigenous Revival Styles and the Era of Historic Eclecticism

As of 2013, a substantial number of LAUSD’s historic school buildings were constructed between the early 1920s and World War II. These schools reflect the eclectic menu of revival styles popular at the time for a range of building types. Period-revival styles seen in LAUSD schools include Italian Renaissance Revival, Collegiate Gothic Revival, and Tudor Revival. In addition, for Southern California’s emerging architectural profession and academy, this era brought a new emphasis on the region’s indigenous architectural traditions and a desire to infuse design with local character. Indigenous revival styles that rose in popularity during this period included, most notably for LAUSD public schools, the Spanish Colonial and Mission Revival. Designers expressed regional character and flavor by relating buildings to the outdoors, with one-story schools easily opened to exterior spaces, and by providing open loggias and arcades for circulation.

Where present, architectural styling and details are generally most clearly expressed in the campus’s public buildings, such as the auditorium or administration building, and at primary entrances to buildings or classroom wings.



Figures 83. and 84. Renaissance Revival Style: Joseph Le Conte Middle School, Edgar Cline (1922). Source: LAUSD Le Conte Middle School Pre-Planning Survey, 2012 (left) Leslie Heumann & Associates and SAIC for LAUSD (right).



Figures 85. and 86. Northern Italian Renaissance: Hamilton Senior High School Administration Building, John C. Austin & Frederick C. Ashley, (1931). Source: LAUSD Hamilton Senior High School Pre-Planning Survey, 2010 (left) Leslie Heumann & Associates and SAIC for LAUSD (right).

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Mission Revival and Spanish Colonial Revival

Beginning with efforts to restore California's missions in the late nineteenth century, Southern Californian architects began looking toward regional history for stylistic cues. The region's climate and Hispanic heritage figured prominently in these new directions. The Mission Revival vocabulary, most popular between 1890 and 1920, drew inspiration from Southwestern missions. Identifying features include curved parapets and red tiled, low-pitched roofs. Arches were used liberally, and wall surfaces commonly displayed smooth stucco. The Spanish Colonial Revival flourished between 1915 and 1940, reaching its apex during the 1920s and 1930s. This movement was catalyzed by architect Bertram Goodhue's 1915 designs for Panama-California Exposition in San Diego.

The Spanish Colonial Revival style became one of the most popular idioms for a range of building types. Architects and builders embraced the style, which was employed for many LAUSD schools. The rise in popularity of the Spanish Colonial Revival style also coincided with the move toward more child-scaled schools, with lower massing and open, expansive campuses. With its emphasis on arcaded corridors and patios, the style fit the school reform movement particularly well.

Spanish Colonial Revival buildings tend to be asymmetrical and sheathed with smooth stucco. Roofs generally consist of gabled, gabled and flat, and (less commonly) hipped roofs, clad in red clay tiles. Arched openings, whether for windows, doors, or gates, are a textbook feature. Secondary materials—including wood, wrought iron, and polychromatic tile—provide decorative accents. Windows are generally wood framed or metal, with molded wood surrounds or lintels.

Typical Character-Defining Features:

- Stucco-clad walls (usually smooth finish); might have brick or cast stone
- Asymmetrical design; incorporation of exterior patios and courtyards
- Use of towers, turrets, or cupolas
- Low-pitched gabled or hipped roof covered in red clay tiles or flat roof with parapet wall
- Shallow eaves or deeper eaves, lined with exposed carved wood brackets
- Arched openings for windows, doors, and use of arcades
- Secondary materials can include wrought iron, polychromatic tile, and cast stone



Figure 87. Post-earthquake Mission Revival Style: Reseda Elementary School (1936). Source: Leslie Heumann & Associates and SAIC for LAUSD.



Figure 88. Late example of Spanish Colonial Revival: Verdugo Hills High School (1948). Source: Leslie Heumann & Associates and SAIC for LAUSD.

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Renaissance Revival Style

In the late nineteenth and early twentieth centuries, the Renaissance Revival style began as a fairly literal translation of sixteenth-century Italian *palazzi* into two- and three-story buildings. The style evolved into one of the most popular of the 1920s, in particular for midrise office buildings. McKim, Mead, and White designed some of the United States' most elegant expressions of the revival during its earlier years.

Renaissance Revival buildings in Southern California are generally sheathed in brick or stucco. Facades are symmetrical or highly regular and divided into bays by the fenestration pattern or by piers, which are often treated as columns with bases and capitals. Variations in surface finishes, fenestration, and level of detail visually distinguish each section, creating a horizontal emphasis that is reinforced by prominent belt courses. A cornice, set above a frieze and/or architrave, traditionally tops a Renaissance Revival building. Windows on top stories are often distinguished from lower stories by different surrounds and configuration.

Typical Character-Defining Features:

- Rectangular massing
- Brick, stucco, and concrete, with trim of terra cotta or cast stone and bases of granite or masonry
- Horizontal emphasis; differentiated treatment of stories
- Symmetry and regularity
- Brick, stucco, or concrete exterior, often scored to resemble masonry
- Gabled and/or hipped roof, often sheathed in clay tiles
- Linear fenestration pattern
- Belt courses and cornices
- Classical detailing
- Cast stone or terra cotta architectural ornament



Figure 89. El Sereno Middle School, originally Woodrow Wilson High School (1937). Source: Leslie Heumann & Associates and SAIC for LAUSD.



Figure 90. University High School (1924). Source: Leslie Heumann & Associates and SAIC for LAUSD.

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Gothic Revival / Collegiate Gothic

Popularized by writers and art critics such as John Ruskin (1819–1900), the English Gothic Revival movement looked back to and idealized the preindustrial Medieval era as a more pure and moral golden age, for society as well as for architecture. First popularized for religious buildings and for school buildings—the “Collegiate Gothic”—the style began appearing in the Los Angeles area in the late 1800s. Few buildings were constructed locally in this style, and even fewer remain.

Most extant Collegiate Gothic schools in Los Angeles were constructed during the height of the period-revival era. In the 1930s, in school design, the style fell out of favor as more up-to-date architectural idioms began emerging. The 1933 Long Beach earthquake, and then the 1934 Field Act, hastened the need for widespread school repairs and new construction, which accelerated the stylistic shift during this period.

Gothic Revival schools share the same emphasis on verticality that characterizes other applications of the style. The emphasis on the vertical is often expressed through the use of uninterrupted piers or attached ornament, which extend from the ground to the roof. The style also makes liberal use of mullions, towers, spires, and pinnacles. Windows are arranged in vertical channels of glass, sometimes topped with pointed arches. Brick and concrete were the materials of choice, often accented by cast stone.

Typical Character-Defining Features:

- Concrete or brick exterior
- Emphasis on the vertical axis
- Attenuated windows and openings
- Use of full-length columns or pilasters
- Steeply gabled roof
- Liberal use of cast stone or terra cotta ornament and sculptural detailing
- Stylized openings, with Tudor, pointed, or round arches
- Windows and doorways outlined with archivolt and topped with decorative crowns
- Windows with mullions



Figure 91. John Marshall High School, George Lindsey, architect (1931). Source: Heumann & Associates and SAIC for LAUSD.

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Figures 92. and 93. Huntington Park High School, Administration Building (1936). Source: Leslie Heumann & Associates and SAIC for LAUSD.

Art Deco

As architects and designers began exploring alternatives to historic revival styles, one of the earliest modern alternatives was Art Deco. The term grew out of the 1925 exposition in Paris showcasing the “nouveau,” or new directions in design and decorative arts, at the *Le Musée des Arts Decoratifs*.

The idiom is highly decorative but rejects copying or adapting historical revival styles. Instead, ornamentation draws on geometric and foliate patterns and motifs, such as zigzags and chevrons, light, and color. Primarily in use between the 1920s and 1930s, the style was used most often in commercial, industrial, and institutional buildings.

Typical Character-Defining Features:

- Emphasis on verticality through building massing;
- Applied exterior features and ornament
- Use of stylized, geometric motifs and decorative features, such as zigzags and chevrons
- Generally features smooth stucco- or concrete-clad wall surfaces
- Often features towers or other elements projecting beyond the roofline
- Often features steel-frame casement and fixed windows



Figure 94. PWA Moderne with Art Deco influence: Florence Nightingale Middle School (1937-1939). Source: Heumann & Associates and SAIC for LAUSD.



Figure 95. Streamline Moderne: Thomas Jefferson High School, Stiles O. Clements (1933). Source: LAUSD.

Streamline Moderne | Moderne

The Streamline Moderne became a popular style during the Great Depression and World War II period. Its clean lines and minimalist ornament both celebrated the modern machine-age and signaled the period of austerity triggered by the Great Depression. Compared with its more ornamental predecessor, the Art Deco style, Streamline Moderne is more restrained in its ornamental program and emphasizes the horizontal rather than the vertical. This is achieved through incorporating bands of windows, decorative raised or grooved horizontal lines, flat canopies with banded fascia, and narrow coping at the roofline. Other characteristics include smooth wall surfaces, usually clad in stucco, glass block or porthole windows, and rounded corners. Reference to aerodynamic design is a signature of the style.

Compared with the Streamline Moderne, Moderne (also called Art Moderne) buildings also tend to be horizontal in emphasis but more clean-lined and rectilinear in their massing and detailing. Moderne designs are generally characterized by flat roofs, smooth stucco exteriors, and use of metal casement windows that often meet at the corners of the building.

Typical Character-Defining Features:

- Horizontal emphasis, massing, and accents, such as moldings and continuous sill courses
- Smooth stucco or concrete exterior finish
- Curvilinear/rounded wall surfaces, corners, and features
- Recessed windows with no surrounds
- Flat or nearly flat roof

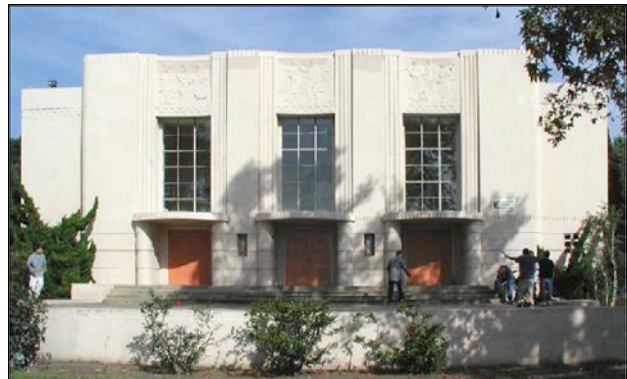


Figure 96. Moderne: Venice High School (1935-1937). Source: Leslie Heumann & Associates and SAIC for LAUSD.

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Figures 97. and 98. Hollenbeck Middle School (1936, left) and Hollywood Union High School (1934/1935, right). Source: Leslie Heumann & Associates and SAIC for LAUSD.

PWA Moderne

Created by the National Industrial Recovery Act, the Public Works Administration (PWA) was founded within a few months of the March 1933 Long Beach Earthquake. Following widespread damage to Los Angeles public schools in the wake of the earthquake, much school reconstruction work was funded by the PWA.

Consequently, a substantial number of Los Angeles public schools either built or remodeled during this time exhibit some degree of PWA Moderne styling. Also referred to as “Stripped Classicism,” the PWA Moderne often incorporates elements of a number of styles, including Classical Revival, Spanish Colonial Revival, Art Deco, and Streamline Moderne.

Compared with the Streamline Moderne, the PWA Moderne was more formal and symmetrical in its overall design, with less emphasis on curvilinear shapes and horizontality. This style is found throughout the United States, particularly for institutional buildings funded through the PWA. Although the PWA program was terminated in 1943, buildings continued to display these stylistic features.

Typical Character-Defining Features:

- Emphasis on the vertical axis
- Symmetrical, formal design composition and massing
- Smooth wall surfaces, generally exhibiting stucco, concrete, and/or polished stone (rarely includes brick exterior elements)
- Usually displays a flat roof
- Piers, often fluted or reeded, separating recessed window channels
- Incorporation of shallow relief panels and interior murals



Figure 99. PWA Moderne meets Spanish Colonial Revival style: Canoga Park High School Auditorium (1939). Source: Leslie Heumann & Associates and SAIC for LAUSD.

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Figures 100. and 101. Emerson Middle School, Richard Neutra, architect (1937-1940). Source: LAUSD.

Early Modernism | International Style (Pre-1945)

This style coincides with the emergence of modernism in Los Angeles, at a time when the idiom was still experimental and practiced by a small group of architects and designers. Many of these same ideas became the norm in the postwar period, but during the pre-1945 years, the ideas remained very unique and experimental. The City of Los Angeles Office of Historic Resources describes this stylistic theme as follows:

With precedents in Europe dating to the first decades of the twentieth century, Los Angeles was one of the first American centers of the International Style due in large part to the import of ideas by Viennese expatriates Rudolph Schindler and Richard Neutra. Although never catching on as a widely-accepted style for domestic architecture, the International Style was embraced and regionalized by a number of Los Angeles architects and designers who established a formidable local Modernist tradition.

Rudolph Schindler came to Los Angeles from Austria in 1920 to oversee construction on the Barnsdall House (Hollyhock House) for the office of Frank Lloyd Wright. Fellow Austrian Richard Neutra came to Los Angeles at Schindler's urging in 1925. Schindler, Lloyd Wright and Neutra and the architects of the so-called "Second Generation" architects continued to design buildings in Los Angeles in the postwar years; however, by this time the work of these architects and their protégés took on an expression of a more regional modernism (see Mid-Century Modernism).⁶

Typical Character-Defining Features:

- Horizontal emphasis; use of simple, geometric volumes; smooth, unadorned wall surfaces, often sheathed in stucco or concrete
- Flat or nearly flat roof, often with cantilevered eaves
- Use of corner and casement windows, often with steel frames
- Windows generally set flush with the wall plane, with minimal trim or surrounds
- Continuous bands of windows emphasize the horizontal axis

⁶ These descriptions are drawn and adapted from the City of Los Angeles Office of Historic Resources guidelines for evaluating modern resources in Los Angeles. Excerpts in this passage were drawn from: Architectural Resources Group, n.d., "Pre-War Modernism," prepared for the City of Los Angeles Office of Historic Resources.

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Figures 102. and 103. On left, Fernangeles Elementary School (1954), Sun Valley. On right, Parmlee Avenue Elementary School (1962), southeastern Los Angeles. Source: LAUSD, 2014.

Mid-Century Modernism / Regional Modernism (Post-1945)

Mid-Century Modernism, or Regional Modernism, represents a middle ground between the formal, machine-age aesthetic of the International Style and a regional idiom reflecting local precedent and identity. In the postwar period through the 1960s, as practiced in Southern California, Mid-Century Modernism took its cues from the region's first-generation modernist architects such as Richard Neutra, Rudolph Schindler, Gregory Ain, Frank Lloyd Wright, and Harwell Hamilton Harris. In the postwar period, second-generation practitioners such as Raphael Soriano, Whitney Smith, and A. Quincy Jones, among many others, established Los Angeles as a center for innovative architectural design and culture.

Mid-Century Modernism is characterized by an honest expression of structure and function, with little applied ornament. Aesthetic effect is achieved through an asymmetrical but balanced, rhythmic design composition, often expressed in modular post-and-beam construction. Whether wood or steel, post-and-beam construction allowed for open floor plans, ease of expansion, and generous expanses of glazing to heighten indoor-outdoor integration. Infill panels of wood or glass are common, with glazing often extending to the gable. Buildings are generally one to two-stories, with an emphasis on simple, geometric forms.

Capped with low-pitched gabled or flat roofs, a Mid-Century Modern building often displays wide eaves and cantilevered canopies, supported on spider-leg or post supports. Sheathing materials vary, with wood, stucco, brick and stone, or steel-framing and glass. Windows are generally flush-mounted, with metal frames. This style was seen in postwar institutional and commercial buildings, as well as residences, from 1945 until circa 1975, when Title 24 restrictions on the use of glass curtailed the expansive glazing that characterizes the style.



Figure 104. Pacoima Middle School, Administrative Building (1955), Wilmington. Source: LAUSD Pacoima Middle School Pre-Planning Survey, 2010.

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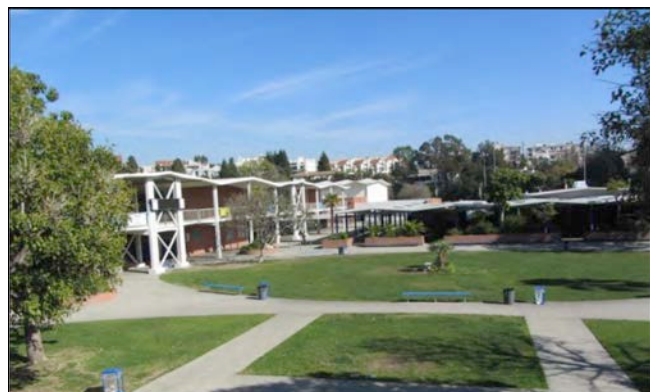
Figures 105. and 106. Dodson Middle High School (1960). Source: LAUSD, 2014.

Typical Character-Defining Features:

- Horizontal design composition and massing; use of modular design; generally one to two stories
- Simple, geometric volumes; exterior materials include stucco, brick, or concrete
- Flat or shed roof, often with wide, cantilevered overhangs
- Aesthetic qualities derive from use of simply treated materials and excellent craftsmanship
- Direct expression of structural systems, often in wood or steel post-and-beam
- Lack of historicizing ornament
- Generous expanses of fenestration, including bands of grouped multilight windows
- Extensive use of sheltered exterior corridors, with flat or slightly sloped roofs supported by posts, piers, or pipe columns

Mid-Century Modernism | Expressionistic/Organic Subtype:

- Combines sculptural forms with basic geometric volumes
- Curved, sweeping wall surfaces
- Expressionistic roof forms, including butterfly, folded plate or barrel vault roof forms



Figures 107. and 108. Orville Wright Middle School (left), Palisades Charter High School (right). Source: LAUSD.

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VI. Conclusion

This study represents a first step in developing procedures and guidelines that are tailored to LAUSD's need to efficiently design and implement modernization and upgrade projects while also protecting historic resources. The goal is to offer LAUSD a sound approach that is grounded in the *SOI Standards* and best preservation practices. In this way, use of the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools* will help LAUSD staff retain and protect the district's many historically significant schools while also facilitating compliance with CEQA, specifically through application of the *SOI Standards* and the avoidance of significant adverse impacts to historic resources.

However, the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools* is also intended to be a living document. As LAUSD continues implementing districtwide modernization, the design guidelines lend themselves to amendment and expansion as needed, in conjunction with a qualified historic preservation professional. In this way, development of the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools* represents a preliminary—but critically important—first step, in order to equip LAUSD staff with the resources and guidelines they will need as they design projects while also ensuring LAUSD's continuing stewardship of its many historically significant assets.

VII. National Park Service Technical Assistance: Select References

National Park Service, US Department of the Interior, Technical Preservation Services, Interpreting the Secretary of the Interior's Standards for Rehabilitation (ITS) Series

Available at: <http://www.nps.gov/tps/standards/applying-rehabilitation/standards-bulletins.htm>.

Titles include:

New Additions (ITS No. 3)

Exterior Doors (ITS No. 4)

Exposed Interior Brick (ITS No. 5)

Interior Finishes (ITS No. 7)

Interior Alterations (ITS No. 8)

Porches (ITS No. 9)

Stair Tower Additions (ITS No. 10)

School Buildings: Interior Alterations to School Buildings to Accommodate New Uses (ITS No. 11)

School Buildings: Rehabilitation and Adaptive Reuse of Schools (ITS No. 12)

Adding New Openings (ITS No. 14)

Loading Door Openings (ITS No. 16)

New Additions (ITS No. 18)

Interior Finishes (ITS No. 19)

Adding New Openings on Secondary Elevations (ITS No. 21)

Adding New Entrances to Historic Buildings (ITS No. 22)

Windows: Selecting New Windows to Replace Non-Historic Windows (ITS No. 23)

Corridors: Installing New Systems in Historic Corridors (ITS No. 24)

Interior Finishes: Altering the Character of Historically Finished Interiors (ITS No. 25)

Entrances and Doors: Entrance Treatments (ITS No. 26)

Awnings: Adding Awnings to Historic Storefronts and Entrances (ITS No. 27)

Interior Features: Retaining Distinctive Corridor Features (ITS No. 31)

Roofing Materials: Slate Roof Treatments (ITS No. 32)

Secondary Elevations: Alterations to Rear Elevations (ITS No. 33)

Rooftop Additions (ITS No. 36)

Alterations without Historical Basis (ITS No. 38)

Site and Setting: Changes to Historic Sites (ITS No. 39)

Corridors: Corridors in Historic School Buildings (ITS No. 40)

Incompatible Alterations to the Setting and Environment of a Historic Property (ITS No. 41)

Subdividing Significant Historic Interior Spaces (ITS No. 44)

Modifying Historic Interior Railings to Meet Building Code (ITS No. 46)

Rooftop Additions on Mid-Size Historic Buildings (ITS No. 47)

Installing New Systems in Historic Buildings (ITS No. 51)

Incorporating Solar Panels in a Rehabilitation Project (ITS No. 52)

Designing New Additions to Provide Accessibility (ITS No. 53)

Alterations without Historical Basis (ITS No. 56)

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National Park Service, US Department of the Interior, Technical Preservation Services, Preservation Briefs

The NPS Preservation Briefs provide guidance on preserving, rehabilitating, and restoring historic buildings. These publications offer extensive guidance for recognizing and addressing common preservation issues and problems prior to beginning work. Available at: <http://www.nps.gov/tps/how-to-preserve/briefs.htm>

Titles include:

- Preservation Brief 1, "Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings."
- Preservation Brief 2, "Repainting Mortar Joints in Historic Masonry Buildings."
- Preservation Brief 3, "Conserving Energy in Historic Buildings."
- Preservation Brief 4, "Roofing for Historic Buildings."
- Preservation Brief 6, "Dangers of Abrasive Cleaning to Historic Buildings."
- Preservation Brief 7, "The Preservation of Historic Glazed Architectural Terra-Cotta."
- Preservation Brief 9, "The Repair of Historic Wooden Windows."
- Preservation Brief 10, "Exterior Paint Problems on Historic Woodwork."
- Preservation Brief 12, "The Preservation of Historic Pigmented Structural Glass (Vitrolite and Carrara Glass)."
- Preservation Brief 13, "The Repair and Thermal Upgrading of Historic Steel Windows."
- Preservation Brief 15, "Preservation of Historic Concrete: Problems and General Approaches."
- Preservation Brief 16, "The Use of Substitute Materials on Historic Building Exteriors."
- Preservation Brief 17, "Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character."
- Preservation Brief 18, "Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements."
- Preservation Brief 19, "The Repair and Replacement of Historic Wooden Shingle Roofs."
- Preservation Brief 21, "Repairing Historic Flat Plaster- Walls and Ceilings."
- Preservation Brief 22, "The Preservation and Repair of Historic Stucco."
- Preservation Brief 23, "Preserving Historic Ornamental Plaster."
- Preservation Brief 24, "Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches."
- Preservation Brief 28, "Painting Historic Interiors."
- Preservation Brief 29, "The Repair, Replacement, and Maintenance of Historic Slate Roofs."
- Preservation Brief 30, "The Preservation and Repair of Historic Clay Tile Roofs."
- Preservation Brief 31, "Mothballing Historic Buildings."
- Preservation Brief 32, "Making Historic Properties Accessible."
- Preservation Brief 33, "The Preservation and Repair of Historic Stained and Leaded Glass."
- Preservation Brief 34, "Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament."
- Preservation Brief 35, "Understanding Old Buildings: The Process of Architectural Investigation."
- Preservation Brief 36, "Protecting Cultural Landscapes."
- Preservation Brief 37, "Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing."
- Preservation Brief 38, "Removing Graffiti from Historic Masonry."
- Preservation Brief 39, "Holding the Line: Controlling Unwanted Moisture in Historic Buildings."
- Preservation Brief 40, "Preserving Historic Ceramic Tile Floors."
- Preservation Brief 41, "The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront."
- Preservation Brief 42, "The Maintenance, Repair and Replacement of Historic Cast Stone."

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Design Guidelines and Treatment Approaches for Historic Schools

Appendix A

California Historical Building Code



CALIFORNIA 2013 **HISTORICAL BUILDING** **CODE**

California Code of Regulations
Title 24, Part 8

California Building Standards Commission



2013 California Historical Building Code
California Code of Regulations, Title 24, Part 8

First Printing: July 2013

ISBN 978-1-58001-457-9

Published by

International Code Council
500 New Jersey Avenue, NW, 6th Floor
Washington, D.C. 20001
1-888-422-7233

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California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936

PRINTED IN THE U.S.A.

PREFACE

This document is the 8th of 12 parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. This part is known as the *California Historical Building Code*.

The *California Building Standards Code* is published in its entirety every three years by order of the California legislature, with supplements published in intervening years. The California legislature delegated authority to various state agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations, or standards, have the same force of law, and take effect 180 days after their publication unless otherwise stipulated. The *California Building Standards Code* applies to occupancies in the State of California as annotated.

A city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) must be filed with the California Building Standards Commission to become effective and may not be effective sooner than the effective date of this edition of the *California Building Standards Code*. Local building standards that were adopted and applicable to previous editions of the *California Building Standards Code* do not apply to this edition without appropriate adoption and the required filing.

Should you find publication (e.g., typographical) errors or inconsistencies in this code or wish to offer comments toward improving its format, please address your comments to:

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2936
Phone: (916) 263-0916
Fax: (916) 263-0959
Web Page: www.bsc.ca.gov

ACKNOWLEDGEMENTS

The 2013 California Building Standards Code (Code) was developed through the outstanding collaborative efforts of the Department of Housing and Community Development, the Division of State Architect, the Office of the State Fire Marshal, the Office of Statewide Health Planning and Development, the California Energy Commission, the California Department of Public Health, the California State Lands Commission, the Board of State and Community Corrections, and the California Building Standards Commission (Commission).

This collaborative effort included the assistance of the Commission's Code Advisory Committees and many other volunteers who worked tirelessly to assist the Commission in the production of this Code.

Governor Edmund G. Brown Jr.

Members of the California Building Standards Commission

Secretary Anna Caballaro – Chair

James Barthman – Vice-Chair

Stephen Jensen

Rose Conroy

Randy Twist

Sheila Lee

Richard Sawhill

Richard Sierra

Kent Sasaki

Steven Winkel

Erick Mikiten

Jim McGowan – Executive Director

Michael L. Nearman – Deputy Executive Director

For questions on California state agency amendments, please refer to the contact list on the following page.

PART 8 CONTAINS ALTERNATIVE REGULATIONS FOR QUALIFIED HISTORICAL BUILDINGS

The *California Historical Building Code* (CHBC) is unique among state regulations. The authoring of the original CHBC required state agencies promulgating regulations for building construction to work in harmony with representatives of other design and construction disciplines. The result was a totally new approach to building codes for historical structures, which maintains currently acceptable life-safety standards.

These regulations are also unique in that they are performance oriented rather than prescriptive. The provisions of the CHBC are to be applied by the enforcing authority of every city, county, city and county, or state agency in permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use or continued use of a qualified historical building.

The authority for use of the CHBC is vested in Sections 18950 through 18961 of the Health and Safety Code. Section 18954 states, "The building department of every city or county shall apply the provisions of alternative building standards and building regulations adopted by the CHBC Board pursuant to Section 18959.5 in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure. A state agency shall apply the alternative building regulations adopted by the CHBC Board pursuant to Section 18959.5 in

permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, moving or continued use of an historical building or structure."

However, be aware that in order to use the CHBC, the structure under consideration must be qualified by being designated as an historical building or structure. Section 18955 states, "For the purposes of this part, a qualified historical building or structure is any structure or collection of structures, and their associated sites deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites, places, historic districts or landmarks."

The regulations of the CHBC have the same authority as state law and are to be considered as such. Liability is the same as for prevailing law.

The intent of the CHBC is to save California's architectural heritage by recognizing the unique construction problems inherent in historical buildings and by providing a code to deal with these problems.

HISTORICAL PREFACE

The background of the *California Historical Building Code* can be traced to December 1973, when the State Department of Parks and Recreation published the California History Plan, Volume I, in which Recommendation No. 11 was proposed by the then California Landmarks Advisory Committee (later to become The State Historical Resources Commission). This proposal expressed a need for a new building code to meet the intent of protecting the public health and safety and also retain “enough flexibility to allow restoration of a Historic feature while still retaining its Historic integrity.” No. 11 of this History Plan supported this need by stating that “. . . restoration . . . is frequently made difficult by unnecessarily rigid interpretation of building . . . codes.”

In March of 1974, the Landmarks Committee by resolution recommended that the Director of the State Department of Parks and Recreation and the State Architect initiate a study to develop this needed code. These two officials accepted this concept and jointly called a statewide meeting in Sacramento on May 14th of that year. Attending were representatives from both the public and private sectors, such as members of the building industry, design professions, local and state building officials, and others interested in this problem.

Out of this open conference, a steering committee was formed to explore in depth the ways and means of implementing the new historical building code concept. This ad hoc committee was chaired by a representative from the California Council, American Institute of Architects and composed of a comprehensive cross section of the professional organizations and government agencies concerned with design and code enforcement.

Meetings began late in 1974 and continued into early 1975. By April of that year, a legislative subcommittee of the ad hoc group drafted a sample bill for the proposed code and requested that it be carried by Senator James R. Mills, President Pro Tem-

pore of the Senate. After further development and refinement, the enacting legislation to create the authority for the code and an advisory board to prepare regulations to implement it (SB 927, Mills) was supported by both the legislature and the public. It was signed by the governor in September 1975, and became effective January 1, 1976.

The members of the advisory board, which were required by law to include local and state building officials, individuals from the building industry and design professions, as well as representatives from city and county governments, were appointed and held their first session in Sacramento, February 24, 1976. This Board’s duties included the preparation of code regulations and the review of specific historic building cases, when officially requested by governing bodies.

Several of the Board’s members were a part of the original ad hoc steering committee and thus provided a continuity and smooth transition from the inception of the code’s philosophy to its pragmatic implementation in these performance-oriented regulations.

The first comprehensive regulations were codified in August and October 1979, after years of careful deliberation. Those regulations allowed all jurisdictions to utilize them at their discretion in replacing or modifying details of prevailing prescriptive codes.

Changes made in law in 1984 and 1991, and to the code, make the application of the *California Historical Building Code* statutes and regulations applicable for all agencies and at the discretion of the owner for local jurisdictions when dealing with qualified historical buildings.

These current performance regulations were adopted by the Board on June 23, 1998, and approved by the California Building Standards Commission on December 12, 2013.

CALIFORNIA CODE OF REGULATIONS, TITLE 24

California Agency Information Contact List

Board of State and Community Corrections

www.csa.ca.gov(916) 445-5073
Local Adult Jail Standards
Local Juvenile Facility Standards

California Building Standards Commission

www.bsc.ca.gov(916) 263-0916

California Energy Commission

www.enregy.ca.gov **Energy Hotline** (800) 772-3300
Building Efficiency Standards
Appliance Efficiency Standards
Compliance Manual/Forms

California State Lands Commission

www.slc.ca.gov(562) 499-6312
Marine Oil Terminals

California State Library

www.library.ca.gov(916) 654-0266

Department of Consumer Affairs:

Acupuncture Board

www.acupuncture.ca.gov(916) 515-5200
Office Standards

Board of Pharmacy

www.pharmacy.ca.gov(916) 574-7900
Pharmacy Standards

Bureau of Barbering and Cosmetology

www.barbercosmo.ca.gov(916) 952-5210
Barber and Beauty Shop,
and College Standards

Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation

www.bearhfti.ca.gov(916) 999-2041
Insulation Testing Standards

Structural Pest Control Board

www.pestboard.ca.gov(800) 737-8188
Structural Standards

Veterinary Medical Board

www.vmb.ca.gov(916) 263-2610
Veterinary Hospital Standards

Department of Food and Agriculture

www.cdffa.ca.gov
Meat & Poultry Packing Plant Standards (916) 654-0509
Dairy Standards (916) 654-0773

Department of Housing and Community Development

www.hcd.ca.gov(916) 445-9471
Residential- Hotels, Motels, Apartments,
Single-Family Dwellings; and
Permanent Structures in Mobilehome &
Special Occupancy Parks
(916) 445-3338
Factory-Built Housing, Manufactured Housing &
Commercial Modular
Mobilehome- Permits & Inspections
Northern Region-(916) 255-2501
Southern Region-(951) 782-4420
(916) 445-9471
Employee Housing Standards

Department of Public Health

www.dph.ca.gov(916) 449-5661
Organized Camps Standards
Public Swimming Pools Standards

Department of Water Resources

www.dwr.ca.gov(916) 651-9676
Gray Water Information

Division of the State Architect

www.dgs.ca.gov/dsa(916) 445-8100

Access Compliance

Structural Safety

Public Schools Standards
Essential Services Building Standards
Community College Standards

State Historical Building Safety Board

Alternative Building Standards

Office of Statewide Health Planning and Development

www.oshpd.ca.gov(916) 654-3139
Hospital Standards
Skilled Nursing Facility Standards &
Clinic Standards

Permits (916) 654-3362

Office of the State Fire Marshal

osfm.fire.ca.gov(916) 445-8200
Code Development and Analysis
Fire Safety Standards
Fireplace Standards
Day Care Centers Standards
Exit Standards

HOW TO DETERMINE WHERE CHANGES HAVE BEEN MADE

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|| This symbol indicates that a change has been made.

> This symbol indicates deletion of language.

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CHAPTER 8-1

ADMINISTRATION

Note: The *California Historical Building Code*, Part 8 of Title 24, governs for all qualified historical buildings or properties in the State of California.

SECTION 8-101 TITLE, PURPOSE AND INTENT

8-101.1 Title. These regulations shall be known as the *California Historical Building Code* and will be referred to herein as “the CHBC.”

8-101.2 Purpose. The purpose of the CHBC is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties (Chapter 8-2). The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular code (as defined in Chapter 8-2) when dealing with qualified historical buildings or properties.

8-101.3 Intent. The intent of the CHBC is to facilitate the preservation and continuing use of qualified historical buildings or properties while providing reasonable safety for the building occupants and access for persons with disabilities.

SECTION 8-102 APPLICATION

8-102.1 Application. The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. The CHBC shall be used by any agency with jurisdiction and whenever compliance with the code is required for qualified historical buildings or properties.

1. The state or local enforcing agency shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property when so elected by the private property owner.
2. **State agencies.** All state agencies shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, safety, relocation, reconstruction or continued use of qualified historical buildings or properties.

8-102.1.1 Additions, alterations and repairs. It is the intent of the CHBC to allow nonhistorical expansion or addition to a qualified historical building or property, pro-

vided nonhistorical additions shall conform to the requirements of the regular code. See Chapter 8-2.

8-102.1.2 Relocation. Relocated qualified historical buildings or properties shall be sited to comply with the regular code or with the solutions listed in the CHBC. Nonhistorical new construction related to relocation shall comply with the regular code. Reconstruction and restoration related to relocation is permitted to comply with the provisions in the CHBC.

8-102.1.3 Change of occupancy. For change of use or occupancy, see Chapter 8-3, Use and Occupancy.

8-102.1.4 Continued use. Qualified historical buildings or properties may have their existing use or occupancy continued if such use or occupancy conformed to the code or to the standards of construction in effect at the time of construction, and such use or occupancy does not constitute a distinct hazard to life safety as defined in the CHBC.

8-102.1.5 Unsafe buildings or properties. When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code.

8-102.1.6 Additional work. Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC.

SECTION 8-103 ORGANIZATION AND ENFORCEMENT

8-103.1 Authority. The state or local enforcing agency, pursuant to authority provided under Section 18954 of the Health and Safety Code, shall administer and enforce the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, reconstruction, rehabilitation, relocation or continued use of a qualified historical building or property.

8-103.2 State enforcement. All state agencies pursuant to authority provided under Section 18954 and Section 18961 of the Health and Safety Code shall administer and enforce the CHBC with respect to qualified historical buildings or properties under their respective jurisdiction.

8-103.3 Liability. Prevailing law regarding immunity of building officials is unaffected by the use and enforcement of the CHBC.

**SECTION 8-104
REVIEW AND APPEALS**

8-104.1 State Historical Building Safety Board (SHBSB). In order to provide for interpretation of the provisions of the CHBC and to hear appeals, the SHBSB shall act as an appeal and review body to state and local agencies or any affected party.

8-104.2 SHBSB review. When a proposed design, material or method of construction is being considered by the enforcing agency, the agency chief, the building official or the local board of appeals may file a written request for opinion to the SHBSB for its consideration, advice or findings. In considering such request, the SHBSB may seek the advice of other appropriate private or public boards, individuals, or state or local agencies. The SHBSB shall, after considering all of the facts presented, including any recommendation of other appropriate boards, agencies or other parties, determine if, for the purpose intended, the proposal is reasonably equivalent to that allowed by these regulations in proposed design, material or method of construction, and it shall transmit such findings and its decision to the enforcing agency for its application. The Board may recover the costs of such reviews and shall report the decision in printed form, copied to the California Building Standards Commission.

8-104.2.1 State agencies. All state agencies with ownership of, or that act on behalf of state agency owners of, qualified historical buildings or properties, shall consult and obtain SHBSB review prior to taking action or making decisions or appeals that affect qualified historical buildings or properties, per Section 18961 of the Health and Safety Code.

8-104.2.2 Imminent threat. Where an emergency is declared and a qualified historical building or property is declared an imminent threat to life and safety, the state agency assessing such a threat shall consult with the SHBSB before any demolition is undertaken, per Section 18961 of the Health and Safety Code.

8-104.3 SHBC appeals. If any local agency administering and enforcing the CHBC or any person adversely affected by any regulation, rule, omission, interpretation, decision or practice of the agency enforcing the CHBC wishes to appeal the issue for resolution to the SHBSB, either of these parties may appeal directly to the Board. The Board may accept the appeal only if it determines that issues involved are of statewide significance. The Board may recover the costs of such reviews and shall make available copies of decisions in printed form at cost, copied to the California Building Standards Commission.

8-104.4 Local agency fees. Local agencies, when actively involved in the appeal, may also charge affected persons reasonable fees not to exceed the cost of obtaining reviews and appeals from the Board.

**SECTION 8-105
CONSTRUCTION METHODS AND MATERIALS**

8-105.1 Repairs. Repairs to any portion of a qualified historical building or property may be made in-kind with historical materials and the use of original or existing historical methods of construction, subject to conditions of the CHBC. (See Chapter 8-8.)

8-105.2 Solutions to the *California Historical Building Code*. Solutions provided in the CHBC, or any other acceptable regulation or methodology of design or construction and used in whole or in part, with the regular code, or with any combination of the regular code and the CHBC, shall be allowed. The CHBC does not preclude the use of any proposed alternative or method of design or construction not specifically prescribed or otherwise allowed by these regulations. Any alternative may be submitted for evaluation to the appropriate enforcing agency for review and acceptance. The enforcing agency may request that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding such solutions. Any alternative offered in lieu of that prescribed or allowed in the CHBC shall be reasonably equivalent in quality, strength, effectiveness, durability and safety to that of the CHBC.

**SECTION 8-106
SHBSB RULINGS**

8-106.1 General. Rulings of the SHBSB (i.e., formal appeals, case decisions, code interpretations and administrative resolutions, etc.) that are issues of statewide application are required to be submitted to the California Building Standards Commission in printed form. These rulings may be used to provide guidance for similar cases or issues.

CHAPTER 8-2

DEFINITIONS

SECTION 8-201 DEFINITIONS

For the purpose of the CHBC, certain terms and phrases, words and their derivatives shall be construed as specified in this chapter. Additional definitions and/or terms may appear in the various other chapters relative to terms or phrases primarily applicable thereto. Any reference to “authority having jurisdiction” does not necessarily preclude the appellate process of Section 8-104.3.

ADDITION. A nonhistorical extension or increase in floor area or height of a building or property.

ALTERATION. A modification to a qualified historical building or property that affects the usability of the building or property, or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historical restoration, changes or rearrangement of the structural parts or elements, and changes or rearrangements in the plan configuration of walls and full-height partitions.

BUILDING STANDARD. Any guideline, regulation or code that may be applied to a qualified historical building or property.

CHARACTER-DEFINING FEATURE. Those visual aspects and physical elements that comprise the appearance of a historical building or property, and that are significant to its historical, architectural and cultural values, including the overall shape of the historical building or property, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.

CULTURAL RESOURCE. Building, site, property, object or district evaluated as having significance in prehistory or history.

DISTINCT HAZARD. Any clear and evident condition that exists as an immediate danger to the safety of the occupants or public right of way. Conditions that do not meet the requirements of current regular codes and ordinances do *not*, of themselves, constitute a distinct hazard. Section 8-104.3, SHBC appeals, remains applicable.

ENFORCING AGENCY, Authority Having Jurisdiction, Local Agency with Jurisdiction. An entity with the responsibility for regulating, enforcing, reviewing or otherwise that exerts control of or administration over the process of gaining permits, approvals, decisions, variances, appeals for qualified historical buildings or properties.

EXIT LADDER DEVICE. An exit ladder device is a permanently installed, fixed, folding, retractable or hinged ladder intended for use as a means of emergency egress from areas of the second or third stories. Unless approved specifically for a longer length, the ladder shall be limited to 25 feet (7620 mm) in length. Exit ladders are permitted where the area served by the ladder has an occupant load less than 10 persons.

FIRE HAZARD. Any condition which increases or may contribute to an increase in the hazard or menace of fire to a greater degree than customarily recognized by the authority having jurisdiction, or any condition or act which could obstruct, delay, hinder or interfere with the operations of firefighting personnel or the egress of occupants in the event of fire. Section 8-104.3, SHBC appeals, remains applicable.

HISTORICAL FABRIC OR MATERIALS. Original and later-added historically significant construction materials, architectural finishes or elements in a particular pattern or configuration which form a qualified historical property, as determined by the authority having jurisdiction.

HISTORICAL SIGNIFICANCE. Importance for which a property has been evaluated and found to be historical, as determined by the authority having jurisdiction.

IMMINENT THREAT. Any condition within or affecting a qualified historical building or property which, in the opinion of the authority having jurisdiction, would qualify a building or property as dangerous to the extent that the life, health, property or safety of the public, its occupants or those performing necessary repair, stabilization or shoring work are in immediate peril due to conditions affecting the building or property. Potential hazards to persons using, or improvements within, the right-of-way may not be construed to be “imminent threats” solely for that reason if the hazard can be mitigated by shoring, stabilization, barricades or temporary fences.

INTEGRITY. Authenticity of a building or property’s historical identity, evidenced by the survival of physical characteristics that existed during the property’s historical or prehistorical period of significance.

LIFE-SAFETY EVALUATION. An evaluation of the life-safety hazards of a qualified historical building or property based on procedures similar to those contained in NFPA 909, *Standard for the Protection of Cultural Resources, Appendix B, Fire Risk Assessment in Heritage Premises*.

LIFE SAFETY HAZARD. See Distinct Hazard.

PERIOD OF SIGNIFICANCE. The period of time when a qualified historical building or property was associated with important events, activities or persons, or attained the characteristics for its listing or registration.

PRESERVATION. The act or process of applying measures necessary to sustain the existing form, integrity and materials of a qualified historical building or property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-related work to make properties functional is appropriate within a preservation project.

DEFINITIONS

QUALIFIED HISTORICAL BUILDING OR PROPERTY. As defined in Health and Safety Code Section 18955 as “Qualified Historical Building or Property.” Any building, site, object, place, location, district or collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state or federal governmental jurisdiction. This shall include historical buildings or properties on, or determined eligible for, national, state or local historical registers or inventories, such as the National Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and city or county registers, inventories or surveys of historical or architecturally significant sites, places or landmarks.

RECONSTRUCTION. The act or process of depicting, by means of new construction, the form, features and detailing of a nonsurviving site, landscape, building, property or object for the purpose of replicating its appearance at a specific period of time.

REGULAR CODE. The adopted regulations that govern the design and construction or alteration of nonhistorical buildings and properties within the jurisdiction of the enforcing agency.

REHABILITATION. The act or process of making possible a compatible use for qualified historical building or property through repair, alterations and additions while preserving those portions or features which convey its qualified historical, cultural or architectural values.

RELOCATION. The act or process of moving any qualified historical building or property or a portion of a qualified historical building or property to a new site, or a different location on the same site.

REPAIR. Renewal, reconstruction or renovation of any portion of an existing property, site or building for the purpose of its continued use.

RESTORATION. The act or process of accurately depicting the form, features and character of a qualified building or property as it appeared at a particular period of time by the means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

STRUCTURE. That which is built or constructed, an edifice or a building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

TREATMENT. An act of work to carry out preservation, restoration, stabilization, rehabilitation or reconstruction.

CHAPTER 8-3

USE AND OCCUPANCY

SECTION 8-301 PURPOSE AND SCOPE

8-301.1 Purpose. The purpose of the CHBC is to provide regulations for the determination of occupancy classifications and conditions of use for qualified historical buildings or properties.

8-301.2 Scope. Every qualified historical building or property for which a permit or approval has been requested shall be classified prior to permit issuance according to its use or the character of its occupancy in accordance with the regular code and applicable provisions of this chapter.

SECTION 8-302 GENERAL

8-302.1 Existing use. The use or character of occupancy of a qualified historical building or property, or portion thereof, shall be permitted to continue in use regardless of any period of time in which it may have remained unoccupied or in other uses, provided such building or property otherwise conforms to all applicable requirements of the CHBC.

8-302.2 Change in occupancy. The use or character of the occupancy of a qualified historical building or property may be changed from or returned to its historical use or character, provided the qualified historical building or property conforms to the requirements applicable to the new use or character of occupancy as set forth in the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements as set forth in regular code.

8-302.3 Occupancy separations. Required occupancy separations of more than one hour may be reduced to one-hour fire-resistive construction with all openings protected by not less than three-fourths-hour fire-resistive assemblies of the self-closing or automatic-closing type when the building is provided with an automatic sprinkler system throughout the entire building in accordance with Section 8-410.4. Doors equipped with automatic-closing devices shall be of a type which will function upon activation of a device which responds to products of combustion other than heat.

Required occupancy separations of one hour may be omitted when the building is provided with an automatic sprinkler system throughout.

8-302.4 Maximum floor area. Regardless of the use or character of occupancy, the area of a one-story qualified historical building or property may have, but shall not exceed, a floor area of 15,000 square feet (1393.5 m²) unless such an increase is otherwise permitted in regular code. Multistory qualified historical buildings (including basements and cellars) shall be in accordance with regular code requirements.

Exception: Historical buildings may be unlimited in floor area without fire-resistive area separation walls:

1. When provided with an automatic sprinkler, or
2. Residential occupancies of two stories or less when provided with a complete fire alarm and annunciation system and where the exiting system conforms to regular code.

8-302.5 Maximum height. The maximum height and number of stories of a qualified historical building or property shall not be limited because of construction type, provided such height or number of stories does not exceed that of its historical design.

8-302.5.1 High-rise buildings. Occupancies B, F-1, F-2 or S in high-rise buildings with floors located more than 75 feet above the lowest floor level having building access may be permitted with only the stories over 75 feet provided with an automatic fire sprinkler system if:

1. The building construction type and the exits conform to regular code, and
2. A complete building fire alarm and annunciation system is installed, and
3. A fire barrier is provided between the sprinklered and nonsprinklered floors.

8-302.6 Fire-resistive construction. See Chapter 8-4.

8-302.7 Light and ventilation. Existing provisions for light and ventilation which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain. See Section 8-303.6 for residential requirements. See Section 8-503 for Escape or Rescue Windows and Doors.

SECTION 8-303 RESIDENTIAL OCCUPANCIES

8-303.1 Purpose. The purpose of this section is to provide regulations for those buildings designated as qualified historical buildings or properties and classified as occupancies. The CHBC requires enforcing agencies to accept any reasonably equivalent to the regular code when dealing with qualified historical buildings and properties.

8-303.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings and properties while maintaining a reasonable degree of protection of life, health and safety for the occupants.

8-303.3 Application and scope. The provisions of this section shall apply to all qualified historical buildings used for human habitation. Those dwelling units intended only for display, or public use with no residential use involved, need not comply with the requirements of this section.

8-303.4 Fire escapes. See Chapter 8-5.

8-303.5 Room dimensions. Rooms used for sleeping purposes may contain a minimum of 50 square feet (4.6 m²) floor area, provided there is maintained an average ceiling height of 7 feet (2134 mm). Other habitable rooms need only be of adequate size to be functional for the purpose intended.

8-303.6 Light and ventilation. Windows in habitable rooms shall have an area of 6 percent of the floor area, or 6 square feet (0.56 m²), whichever is greater. Windows in sleeping rooms shall be openable (see Section 8-503). Residential occupancies need not be provided with electrical lighting.

8-303.7 Alteration and repair. The alteration and repair of qualified historical buildings or properties may permit the replacement, retention and extension of original materials and the continued use of original methods of construction, provided a life-safety hazard is not created or continued. Alterations and repairs shall be consistent with the CHBC.

The amount of alterations and repairs is not limited, provided there is no nonhistorical increase in floor area, volume or size of the building or property.

8-303.8 Exiting. See Chapter 8-5.

CHAPTER 8-4

FIRE PROTECTION

SECTION 8-401 PURPOSE, INTENT AND SCOPE

8-401.1 Purpose. The purpose of this chapter is to provide for fire protection of qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent to the regular code when dealing with qualified historical buildings or properties.

8-401.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while maintaining a reasonable degree of fire protection based primarily on the life safety of the occupants and firefighting personnel.

8-401.3 Scope. This chapter shall apply when required by the provisions of Section 8-102.

SECTION 8-402 FIRE-RESISTIVE CONSTRUCTION

8-402.1 Exterior wall construction. The fire-resistance requirement for existing exterior walls and existing opening protection may be satisfied when an automatic sprinkler system designed for exposure protection is installed per the CHBC. The automatic sprinklers may be installed on the exterior with at least one sprinkler located over each opening required to be protected. Additional sprinklers shall also be distributed along combustible walls under the roof lines that do not meet the fire-resistive requirement due to relationship to property lines as required by regular code. Such sprinkler systems may be connected to the domestic water supply on the supply-main side of the building shut-off valve. A shut-off valve may be installed for the sprinkler system, provided it is locked in an open position.

8-402.2 One-hour construction. Upgrading an existing qualified historical building or property to one-hour fire-resistive construction and one-hour fire-resistive corridors shall not be required regardless of construction or occupancy when one of the following is provided:

1. An automatic sprinkler system throughout. See Section 8-410.2 for automatic sprinkler systems.
2. An approved life-safety evaluation.
3. Other alternative measures as approved by the enforcing agency.

8-402.3 Openings in fire-rated systems. Historical glazing materials and solid wood unrated doors in interior walls required to have one-hour fire rating may be approved when operable windows and doors are provided with appropriate smoke seals and when the area affected is provided with an automatic sprinkler system. See Section 8-410 for automatic sprinkler systems.

SECTION 8-403 INTERIOR FINISH MATERIALS

New nonhistorical interior wall and ceiling finish shall conform to the provisions of the regular code. Existing nonconforming materials used for wood lath and plaster walls, see Section 8-404.

Exception: When an automatic sprinkler system is provided throughout the building, existing finishes shall be approved.

SECTION 8-404 WOOD LATH AND PLASTER

Wood lath and plaster walls may be considered in accordance with codes, standards and listings published prior to 1943 whereby a wood stud wall assembly with gypsum or lime plaster on hand split or sawn wooden lath obtains a one-half-hour fire-resistive rating. This rating may be increased for interior walls to as much as one hour by filling the wall with mineral fiber or glass fiber.

SECTION 8-405 OCCUPANCY SEPARATION

See Chapter 8-3.

SECTION 8-406 MAXIMUM FLOOR AREA

See Chapter 8-3.

SECTION 8-407 VERTICAL SHAFTS

Vertical shafts need not be enclosed when such shafts are blocked at every floor level by the installation of not less than 2 full inches (51 mm) of solid wood or equivalent construction installed so as to prevent the initial passage of smoke and flame. Automatic sprinkler systems or other solutions may be considered on a case-by-case basis, in lieu of enclosure of vertical shafts and stairwells.

SECTION 8-408 ROOF COVERING

Existing or original roofing materials may be repaired or reconstructed subject to the following requirements:

1. The original or historical roofing system shall be detailed or modified as necessary in order to be capable of providing shelter while preserving the historical materials and appearance of the roof.
2. Wooden roof materials may be utilized where fire resistance is required, provided they are treated with

fire-retardant treatments to achieve a Class “B” roof covering rating. Wood roofing in state designated Urban Wildland and High Fire Zones shall be permitted when installed in class “A” assemblies.

3. Jurisdictions that prohibit wood roofing materials for application as roof coverings and roof assemblies shall submit documentation for the adoption. Express Terms, statement of reasons and minutes of the action by the adopting authority Health and Safety Code, Section 18959(f).

**SECTION 8-409
FIRE ALARM SYSTEMS**

Every qualified historical building or property shall be provided with fire alarm systems as required for the use or occupancy by the regular code or other approved alternative.

**SECTION 8-410
AUTOMATIC SPRINKLER SYSTEMS**

8-410.1 Every qualified historical building or property which cannot be made to conform to the construction requirements specified in the regular code for the occupancy or use, and which constitutes a distinct fire hazard (for definition of “distinct hazard,” see Chapter 8-2), shall be deemed to be in compliance if provided with an automatic sprinkler system or a life-safety system or other technologies as approved by the enforcing agency. (“Automatic” is defined in the regular code. Sprinkler System is defined in this section.)

8-410.2 When required by the CHBC, an automatic sprinkler systems is defined by the following standards (for nonhazardous occupancies).

1. Buildings of four stories or less: NFPA 13R, 2002 edition.
2. For floors above the fourth, NFPA 13, 2002, SFM amended edition.
3. Buildings with floors above 75 feet, NFPA 13, 2002 edition.
4. When the building is free standing or with property line separation, two floors and 1500 sf per floor or less, NFPA 13D, 2002 Edition.
5. For exterior wall and opening protection. As required by this section.

Exception: When the automatic sprinkler systems are used to reach compliance using this code, in three or more occasions, the system shall be NFPA standard 13D shall be increased to NFPA 13R Standard, or NFPA 13R standard shall be increased to a NFPA 13 standard.

8-410.3 Automatic sprinkler systems shall not be used to substitute for or act as an alternate to the required number of exits from any facility. (See Chapter 8-5 for exiting requirements.)

8-410.4 An automatic sprinkler system shall be provided in all detention facilities.

**SECTION 8-411
OTHER TECHNOLOGIES**

Fire alarm systems, smoke and heat detection systems, occupant notification and annunciation systems, smoke control systems and fire modeling, times egress analysis and modeling, as well as other engineering methods and technologies may be accepted by the enforcing agency to address areas of non-conformance.

**SECTION 8-412
HIGH-RISE BUILDINGS**

Qualified historical buildings having floors for human occupancy located more than 75 feet above the lowest floor level having building access shall conform to the provisions of the regular code for existing high-rise buildings as amended by the CHBC.

CHAPTER 8-5

MEANS OF EGRESS

SECTION 8-501 PURPOSE, INTENT AND SCOPE

8-501.1 Purpose. The purpose of this chapter is to establish minimum means of egress regulations for qualified historical buildings or properties. The CHBC requires enforcing agencies to accept reasonably equivalent alternatives to the means of egress requirements in the regular code.

8-501.2 Intent. The intent of these regulations is to provide an adequate means of egress.

8-501.3 Scope. Every qualified historical building or portion thereof shall be provided with exits as required by the CHBC when required by the provisions of Section 8-102.

SECTION 8-502 GENERAL

8-502.1 General. The enforcing agency shall grant reasonable exceptions to the specific provisions of applicable egress regulations where such exceptions will not adversely affect life safety.

8-502.2. Existing door openings and corridor widths of less than dimensions required by regular code shall be permitted where there is sufficient width and height for the occupants to pass through the opening or traverse the exit.

8-502.3 Stairs. Existing stairs having risers and treads or width at variance with the regular code are allowed if determined by the enforcing agency to not constitute a distinct hazard. Handrails with nonconforming grip size or extensions are allowed if determined by the enforcing agency to not constitute a distinct hazard.

8-502.4 Main entry doors. The front or main entry doors need not be rehung to swing in the direction of exit travel, provided other means or conditions of exiting, as necessary to serve the total occupant load, are provided.

8-502.5 Existing fire escapes. Existing previously approved fire escapes and fire escape ladders shall be acceptable as one of the required means of egress, provided they extend to the ground and are easily negotiated, adequately signed and in good working order. Access shall be by an opening having a minimum width of 29 inches (737mm) when open with a sill no more than 30 inches (762mm) above the adjacent floor, landing or approved step.

8-502.6 New fire escapes and fire escape ladders. New fire escapes and fire escape ladders which comply with this section shall be acceptable as one of the required means of egress. New fire escapes and new fire escape ladders shall comply with the following:

1. Access from a corridor shall not be through an intervening room.
2. All openings within 10 feet (3048 mm) shall be protected by three-fourths-hour fire assemblies. When

located within a recess or vestibule, adjacent enclosure walls shall be of not less than one-hour fire-resistive construction.

3. Egress from the building shall be by a clear opening having a minimum dimension of not less than 29 inches (737 mm). Such openings shall be openable from the inside without the use of a key or special knowledge or effort. The sill of an opening giving access shall not be more than 30 inches (737 mm) above the floor, step or landing of the building or balcony.
4. Fire escape stairways and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.79 kN/m²) and shall be provided with a top and intermediate handrail on each side. The pitch of the stairway shall not exceed 72 degrees with a minimum width of 18 inches (457 mm). Treads shall not be less than 4 inches (102 mm) in width, and the rise between treads shall not exceed 10 inches (254 mm). All stair and balcony railings shall support a horizontal force of not less than 50 pounds per lineal foot (729.5 N/m²) of railing.
5. Balconies shall not be less than 44 inches (1118 mm) in width with no floor opening other than the stairway opening greater than $\frac{5}{8}$ inch (15.9 mm) in width. Stairway openings in such balconies shall not be less than 22 inches by 44 inches (559 by 1118 mm). The balustrade of each balcony shall not be less than 36 inches (914 mm) high with not more than 9 inches (287 mm) between balusters.
6. Fire escapes shall extend to the roof or provide an approved gooseneck ladder between the top floor landing and the roof when serving buildings four or more stories in height having roofs with less than 4 units vertical in 12 units horizontal (33.3 percent slope). Fire escape ladders shall be designed and connected to the building to withstand a horizontal force of 100 pounds (445 N) placed anywhere on the rung. All ladders shall be at least 15 inches (381 mm) wide, located within 12 inches (305 mm) of the building. Ladder rungs shall be $\frac{3}{4}$ inch (19.1 mm) in diameter and shall be located 12 inches (305 mm) on center. Openings for roof access ladders through cornices and similar projections shall have minimum dimensions of 30 inches by 33 inches (762 by 838 mm).

The length of fire escapes and exit ladder devices shall be limited to that approved by the building official based on products listed by a recognized testing laboratory.

7. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escapes shall extend to the ground or be provided with counterbalanced stairs reaching to the ground.

MEANS OF EGRESS

8. Fire escapes shall not take the place of stairways required by the codes under which the building was constructed.
9. Fire escapes shall be kept clear and unobstructed at all times and maintained in good working order.

SECTION 8-503

ESCAPE OR RESCUE WINDOWS AND DOORS

Basements in dwelling units and every sleeping room below the fourth floor shall have at least one openable window or door approved for emergency escape which shall open directly into a public street, public way, yard or exit court. Escape or rescue windows or doors shall have a minimum clear area of 3.3 square feet (0.31 m²) and a minimum width or height dimension of 18 inches (457 mm) and be operable from the inside to provide a full, clear opening without the use of special tools.

SECTION 8-504

RAILINGS AND GUARDRAILS

The height of railings and guard railings and the spacing of balusters may continue in their historical height and spacing unless a distinct hazard has been identified or created by a change in use or occupancy.

CHAPTER 8-6

ACCESSIBILITY

SECTION 8-601 PURPOSE, INTENT AND SCOPE

8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties.

8-601.2 Intent. The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by persons with disabilities.

8-601.3 Scope. The CHBC shall apply to every qualified historical building or property that is required to provide access to persons with disabilities.

1. Provisions of this chapter do not apply to new construction or reconstruction/replicas of historical buildings.
2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in *California Building Code (CBC)*, Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration.

8-601.4 General application. The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.

SECTION 8-602 BASIC PROVISIONS

8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol. 1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property.

8-602.2 Alternative provisions. If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met:

1. These provisions shall be applied only on an item-by-item or a case-by-case basis.
2. Documentation is provided, including meeting minutes or letters, stating the reasons for the application of the alternative provisions. Such documentation shall be retained in the permanent file of the enforcing agency.

SECTION 8-603 ALTERNATIVES

8-603.1 Alternative minimum standards. The alternative minimum standards for alterations of qualified historical buildings or facilities are contained in Section 4.1.7(3) of ADA Standards for Accessible Design, as incorporated and set forth in federal regulation 28 C.F.R. Pt. 36.

8-603.2 Entry. These alternatives do not allow exceptions for the requirement of level landings in front of doors, except as provided in Section 8-603.4.

1. Access to any entrance used by the general public and no further than 200 feet (60 960 mm) from the primary entrance.
2. Access at any entrance not used by the general public but open and unlocked with directional signs at the primary entrance and as close as possible to, but no further than 200 feet (60 960 mm) from, the primary entrance.
3. The accessible entrance shall have a notification system. Where security is a problem, remote monitoring may be used.

8-603.3 Doors. Alternatives listed in order of priority are:

1. Single-leaf door which provides a minimum 30 inches (762 mm) of clear opening.
2. Single-leaf door which provides a minimum 29½ inches (749 mm) clear opening
3. Double door, one leaf of which provides a minimum 29½ inches (749 mm) clear opening.
4. Double doors operable with a power-assist device to provide a minimum 29½ inches (749 mm) clear opening when both doors are in the open position.

8-603.4 Power-assisted doors. Power-assisted door or doors may be considered an equivalent alternative to level landings, strikeside clearance and door-opening forces required by the regular code.

8-603.5 Toilet rooms. In lieu of separate-gender toilet facilities as required in the regular code, an accessible unisex toilet facility may be designated.

8-603.6 Exterior and interior ramps and lifts. Alternatives listed in order of priority are:

1. A lift or a ramp of greater than standard slope but no greater than 1:10, for horizontal distances not to exceed 5 feet (1525 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope.
2. Access by ramps of 1:6 slope for horizontal distance not to exceed 13 inches (330 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope.

**SECTION 8-604
EQUIVALENT FACILITATION**

Use of other designs and technologies, or deviation from particular technical and scoping requirements, are permitted if the application of the alternative provisions contained in Section 8-603 would threaten or destroy the historical significance or character-defining features of the historical building or property.

1. Such alternatives shall be applied only on an item-by-item or a case-by-case basis.
2. Access provided by experiences, services, functions, materials and resources through methods including, but not limited to, maps, plans, videos, virtual reality and related equipment, at accessible levels. The alternative design and/or technologies used will provide substantially equivalent or greater accessibility to, and usability of, the facility.
3. The official charged with the enforcement of the standards shall document the reasons for the application of the design and/or technologies and their effect on the historical significance or character-defining features. Such documentation shall be in accordance with Section 8-602.2, Item 2, and shall include the opinion and comments of state or local accessibility officials, and the opinion and comments of representative local groups of people with disabilities. Such documentation shall be retained in the permanent file of the enforcing agency. Copies of the required documentation should be available at the facility upon request.

Note: For commercial facilities and places of public accommodation (Title III entities).

Equivalent facilitation for an element of a building or property when applied as a waiver of an ADA accessibility requirement will not be entitled to the Federal Department of Justice certification of this code as rebuttable evidence of compliance for that element.

CHAPTER 8-7

STRUCTURAL REGULATIONS

SECTION 8-701 PURPOSE, INTENT AND SCOPE

8-701.1 Purpose. The purpose of the CHBC is to provide alternative regulations to the regular code for the structural safety of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-701.2 Intent. The intent of this chapter is to encourage the preservation of qualified historical buildings or structures while providing standards for a minimum level of building performance with the objective of preventing partial or total structural collapse such that the overall risk of life-threatening injury as a result of structural collapse is low.

8-701.3 Application. The alternative structural regulations provided by Section 8-705 are to be applied in conjunction with the regular code whenever a structural upgrade or reconstruction is undertaken for qualified historical buildings or properties.

SECTION 8-702 GENERAL

8-702.1 The CHBC shall not be construed to allow the enforcing agency to approve or permit a lower level of safety of structural design and construction than that which is reasonably equivalent to the regular code provisions in occupancies which are critical to the safety and welfare of the public at large, including, but not limited to, public and private schools, hospitals, municipal police and fire stations and essential services facilities.

8-702.2 Nothing in these regulations shall prevent voluntary and partial seismic upgrades when it is demonstrated that such upgrades will improve life safety and when a full upgrade would not otherwise be required.

SECTION 8-703 STRUCTURAL SURVEY

8-703.1 Scope. When a structure or portion of a structure is to be evaluated for structural capacity under the CHBC, it shall be surveyed for structural conditions by an architect or engineer knowledgeable in historical structures. The survey shall evaluate deterioration or signs of distress. The survey shall determine the details of the structural framing and the system for resistance of gravity and lateral loads. Details, reinforcement and anchorage of structural systems and veneers shall be determined and documented where these members are relied on for seismic lateral resistance.

8-703.2 The results of the survey shall be utilized for evaluating the structural capacity and for designing modifications to the structural system to reach compliance with this code.

8-703.3 Historical records. Past historical records of the structure or similar structures may be used in the evaluation, including the effects of subsequent alterations.

SECTION 8-704 NONHISTORICAL ADDITIONS AND NONHISTORICAL ALTERATIONS

8-704.1 New nonhistorical additions and nonhistorical alterations which are structurally separated from an existing historical building or structure shall comply with regular code requirements.

8-704.2 New nonhistorical additions which impose vertical or lateral loads on an existing structure shall not be permitted unless the affected part of the supporting structure is evaluated and strengthened, if necessary, to meet regular code requirements.

Note: For use of archaic materials, see Chapter 8-8.

SECTION 8-705 STRUCTURAL REGULATIONS

8-705.1 Gravity loads. The capacity of the structure to resist gravity loads shall be evaluated and the structure strengthened as necessary. The evaluation shall include all parts of the load path. Where no distress is evident, and a complete load path is present, the structure may be assumed adequate by having withstood the test of time if anticipated dead and live loads will not exceed those historically present.

8-705.2 Wind and seismic loads. The ability of the structure to resist wind and seismic loads shall be evaluated. Wind loads shall be considered when appropriate, but need not exceed 75% of the wind loads prescribed by the regular code. The evaluation shall be based on the requirements of Section 8-706.

8.705.2.1 Any unsafe conditions in the lateral-load-resisting system shall be corrected, or alternative resistance shall be provided. When strengthening is required, additional resistance shall be provided to meet the minimum requirements of the CHBC. The strengthening measures shall be selected with the intent of meeting the performance objectives set forth in Section 8-701.2. The evaluation of structural members and structural systems for seismic loads shall consider the inelastic performance of structural members and their ability to maintain load-carrying capacity during the seismic loadings prescribed by the regular code.

8.705.2.2 The architect or engineer shall consider additional measures with minimal loss of, and impact to, historical materials which will reduce damage and needed repairs in future earthquakes to better preserve the historical structure in perpetuity. These additional measures shall be presented to the owner for consideration as part of the rehabilitation or restoration.

SECTION 8-706 LATERAL LOAD REGULATIONS

8-706.1 Seismic forces. Strength-level seismic forces used to evaluate the structure for resistance to seismic loads shall be based on the *R*-values tabulated in the regular code for similar lateral-force-resisting systems including consideration of the structural detailing of the members where such *R*-values exist. Where such *R*-values do not exist, an appropriate *R*-value shall be rationally assigned considering the structural detailing of the members.

Exceptions:

1. The forces need not exceed 0.75 times the seismic forces prescribed by the regular code requirements.
2. For Occupancy Category I, II or III structures, near-fault increases in ground motion (maximum considered earthquake ground motion of 0.2 second spectral response greater than 150 percent at 5 percent damping) need not be considered when the fundamental period of the building is 0.5 seconds in the direction under consideration.
3. For Occupancy Category I or II structures, the seismic base shear need not exceed 0.30 W .
4. For Occupancy Category III or IV structures, the seismic base shear need not exceed 0.40 W .

8-706.1.1 When a building is to be strengthened with the addition of a new lateral force resisting system, the *R* value of the new system can be used when the new lateral force resisting system resists at least 75 percent of the building's base shear regardless of its relative rigidity.

8-706.1.2 Unreinforced masonry bearing wall buildings shall comply with the *California Existing Building Code* (CEBC), Appendix Chapter A1, 2010 Edition, and as modified by the CHBC. Alternative standards may be used on a case-by-case basis when approved by the authority having jurisdiction. It shall be permitted to exceed the strength limitation of 100 psi in Section A108.2 of the CEBC when test data and building configuration supports higher values subject to the approval of the authority having jurisdiction.

8-706.1.3 All deviations from the detailing provisions of the lateral-force-resisting systems shall be evaluated for stability and the ability to maintain load-carrying capacity at the expected inelastic deformations.

8-706.2 Existing building performance. The seismic resistance may be based upon the ultimate capacity of the structure to perform, giving due consideration to ductility and reserve strength of the lateral-force-resisting system and materials while maintaining a reasonable factor of safety. Broad judgment may be exercised regarding the strength and performance of materials not recognized by regular code requirements. (See Chapter 8-8, Archaic Materials and Methods of Construction.)

8-706.2.1 All structural materials or members that do not comply with detailing and proportioning requirements of the regular code shall be evaluated for potential seismic performance and the consequence of non-compliance. All members that would be reasonably expected to fail and lead to collapse or life threatening injury when subjected to seismic demands shall be judged unacceptable, and appropriate structural strengthening shall be developed.

8-706.3 Load path. A complete and continuous load path, including connections, from every part or portion of the structure to the ground shall be provided for the required forces. It shall be verified that the structure is adequately tied together to perform as a unit when subjected to earthquake forces.

8-706.4 Parapets. Parapets and exterior decoration shall be investigated for conformance with regular code requirements for anchorage and ability to resist prescribed seismic forces.

An exception to regular code requirements shall be permitted for those parapets and decorations which are judged not to be a hazard to life safety.

8-706.5 Nonstructural features. Nonstructural features of historical structure, such as exterior veneer, cornices and decorations, which might fall and create a life-safety hazard in an earthquake, shall be evaluated. Their ability to resist seismic forces shall be verified, or the feature shall be strengthened with improved anchorage when appropriate.

8-706.5.1 Partitions and ceilings of corridors and stairways serving an occupant load of 30 or more shall be investigated to determine their ability to remain in place when the building is subjected to earthquake forces.

CHAPTER 8-8

ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION

SECTION 8-801 PURPOSE, INTENT AND SCOPE

8-801.1 Purpose. The purpose of the CHBC is to provide regulations for the use of historical methods and materials of construction that are at variance with regular code requirements or are not otherwise codified, in buildings or structures designated as qualified historical buildings or properties. The CHBC require enforcing agencies to accept any reasonably equivalent alternatives to the regular code when dealing with qualified historical buildings or properties.

8-801.2 Intent. It is the intent of the CHBC to provide for the use of historical methods and materials of construction that are at variance with specific code requirements or are not otherwise codified.

8-801.3 Scope. Any construction type or material that is, or was, part of the historical fabric of a structure is covered by this chapter. Archaic materials and methods of construction present in a historical structure may remain or be reinstalled or be installed with new materials of the same class to match existing conditions.

SECTION 8-802 GENERAL ENGINEERING APPROACHES

Strength values for archaic materials shall be assigned based upon similar conventional codified materials, or on tests as hereinafter indicated. The archaic materials and methods of construction shall be thoroughly investigated for their details of construction in accordance with Section 8-703. Testing shall be performed when applicable to evaluate existing conditions. The architect or structural engineer in responsible charge of the project shall assign allowable stresses or strength levels to archaic materials. Such assigned strength values shall not be greater than those provided for in the following sections without adequate testing, and shall be subject to the concurrence of the enforcing agency.

SECTION 8-803 NONSTRUCTURAL ARCHAIC MATERIALS

Where nonstructural historical materials exist in uses which do not meet the requirements of the regular code, their continued use is allowed by this code, provided that any public health and life-safety hazards are mitigated subject to the concurrence of the enforcing agency.

SECTION 8-804 ALLOWABLE CONDITIONS FOR SPECIFIC MATERIALS

Archaic materials which exist and are to remain in qualified historical buildings or structures shall be evaluated for their condition and for loads required by this code. The structural

survey required in Section 8-703 of the CHBC shall document existing conditions, reinforcement, anchorage, deterioration and other factors pertinent to establishing allowable stresses, strength levels and adequacy of the archaic materials. The remaining portion of this chapter provides additional specific requirements for commonly encountered archaic materials.

SECTION 8-805 MASONRY

For adobe, see Section 8-806.

8-805.1 Existing solid masonry. Existing solid masonry walls of any type, except adobe, may be allowed, without testing, a maximum ultimate strength of nine pounds per square inch (62.1 kPa) in shear where there is a qualifying statement by the architect or engineer that an inspection has been made, that mortar joints are filled and that both brick and mortar are reasonably good. The shear stress above applies to unreinforced masonry, except adobe, where the maximum ratio of unsupported height or length to thickness does not exceed 13, and where minimum quality mortar is used or exists. Wall height or length is measured to supporting or resisting elements that are at least twice as stiff as the tributary wall. Stiffness is based on the gross section. Shear stress may be increased by the addition of 10 percent of the axial direct stress due to the weight of the wall directly above. Higher-quality mortar may provide a greater shear value and shall be tested in accordance with Appendix A, Chapter A1 of the *California Existing Building Code* (CEBC) 2010 edition, and as modified by the CHBC.

8-805.2 Stone masonry.

8-805.2.1 Solid-backed stone masonry. Stone masonry solidly backed with brick masonry shall be treated as solid brick masonry as described in Section 8-805.1 and in the 2009 IEBC, provided representative testing and inspection verifies solid collar joints between stone and brick and that a reasonable number of stones lap with the brick wythes as headers or that steel anchors are present. Solid stone masonry where the wythes of stone effectively overlap to provide the equivalent header courses may also be treated as solid brick masonry.

8-805.2.2 Independent wythe stone masonry. Stone masonry with independent face wythes may be treated as solid brick masonry as described in Section 8-805.1 and the CEBC, provided representative testing and inspection verify that the core is essentially solid in the masonry wall and that steel ties are epoxied in drilled holes between outer stone wythes at floors, roof and not to exceed 4 feet (1219 mm) on center in each direction, between floors and roof. A reinforcing element shall exist or be provided at or near the top of all stone masonry walls.

8-805.2.3 Testing of stone masonry. Testing of stone masonry shall be similar to the 2010 CEBC requirements

for brick masonry, except that representative stones which are not interlocked shall be pulled outward from the wall and shear area appropriately calculated after the test.

8-805.3 Reconstructed walls. Totally reconstructed walls utilizing original brick or masonry, constructed similar to original, shall be constructed in accordance with the regular code. Repairs or infills may be constructed in a similar manner to the original walls without conforming to the regular code.

SECTION 8-806 ADOBE

8-806.1 General. Unburned clay masonry may be constructed, reconstructed, stabilized or rehabilitated subject to this chapter. Alternative approaches which provide an equivalent or greater level of safety may be used, subject to the concurrence of the enforcing agency.

8-806.2 Moisture protection. Provisions shall be in-place to protect adobe structures from deterioration due to moisture penetration. Adobe shall be maintained in reasonably good condition. Particular attention shall be given to moisture content of adobe walls. Unmaintained walls or ruins shall be evaluated for safety based on their condition and stability. Additional protection measures may be appropriate subject to the concurrence of the enforcing agency.

8-806.3 Height to thickness ratio. Unreinforced new or existing adobe walls shall meet these criteria need not be evaluated for out of plane failure. Where existing dimensions do not meet these conditions, additional strengthening measures, such as a bond beam, may be appropriate. Existing sod or rammed earth walls shall be considered similar to the extent these provisions apply.

1. One-story adobe load-bearing walls shall not exceed a height-to-thickness ratio of 6.
2. Two-story adobe buildings or structures' height-to-thickness wall ratio shall not exceed 6 at the ground floor and 5 at the second floor, and shall be measured at floor-to-floor height when the second floor and attic ceiling/roof are connected to the wall as described below.

8-806.4 Nonload-bearing adobe. Nonload-bearing adobe partitions and gable end walls shall be evaluated for stability and anchored against out-of-plane failure if necessary.

8-806.5 Bond beam. Where provided, a bond beam or equivalent structural element shall be located at the top of all adobe walls, and at the second floor for two-story buildings or structures. The size and configuration of the structural element shall be sufficient to provide an effective brace for the wall, to tie the building together and to connect the wall to the floor or roof.

8-806.6 Repair or reconstruction. Repair or reconstruction of wall area may utilize unstabilized brick or adobe masonry designed to be compatible with the constituents of the existing adobe materials.

8-806.7 Shear values. Existing adobe may be allowed a maximum strength level of twelve pounds per square inch (82.7 kPa) for shear.

8-806.8 Mortar. Mortar may be of the same soil composition as that used in the existing wall, or in new walls as necessary to be compatible with the adobe brick.

SECTION 8-807 WOOD

8-807.1 Existing wood diaphragms or walls. Existing wood diaphragms or walls of straight or diagonal sheathing shall be assigned shear resistance values appropriate with the fasteners and materials functioning in conjunction with the sheathing. The structural survey shall determine fastener details and spacings and verify a load path through floor construction. Shear values of Tables 8-8-A and 8-8-B.

8-807.2 Wood lath and plaster. Wood lath and plaster walls and ceilings may be utilized using the shear values referenced in Section 8-807.1.

8-807.3 Existing wood framing. Existing wood framing members may be assigned allowable stresses consistent with codes in effect at the time of construction. Existing or new replacement wood framing may be of archaic types originally used if properly researched, such as balloon and single wall. Wood joints such as dovetail and mortise and tenon types may be used structurally, provided they are well made. Lumber selected for use and type need not bear grade marks, and greater or lesser species such as low-level pine and fir, boxwood and indigenous hardwoods and other variations may be used for specific conditions where they were or would have been used.

Wood fasteners such as square or cut nails may be used with a maximum increase of 50 percent over wire nails for shear.

SECTION 8-808 CONCRETE

8-808.1 Materials. Natural cement concrete, unreinforced rubble concrete and similar materials may be utilized wherever that material is used historically. Concrete of low strength and with less reinforcement than required by the regular code may remain in place. The architect or engineer shall assign appropriate values of strength based on testing of samples of the materials. Bond and development lengths shall be determined based on historical information or tests.

8-808.2 Detailing. The architect or engineer shall carefully evaluate all detailing provisions of the regular code which are not met and shall consider the implications of these variations on the ultimate performance of the structure, giving due consideration to ductility and reserve strength.

SECTION 8-809 STEEL AND IRON

The hand-built, untested use of wrought or black iron, the use of cast iron or grey iron, and the myriad of joining methods that are not specifically allowed by code may be used wherever applicable and wherever they have proven their worth under the considerable span of years involved with most qualified historical buildings or structures. Uplift capacity should be evaluated

and strengthened where necessary. Fixed conditions or midheight lateral loads on cast iron columns that could cause failure should be taken into account. Existing structural wrought, forged steel or grey iron may be assigned the maximum working stress prevalent at the time of original construction.

**SECTION 8-810
HOLLOW CLAY TILE**

The historical performance of hollow clay tile in past earthquakes shall be carefully considered in evaluating walls of hollow clay tile construction. Hollow clay tile bearing walls shall be evaluated and strengthened as appropriate for lateral loads and their ability to maintain support of gravity loads. Suitable protective measures shall be provided to prevent blockage of exit stairways, stairway enclosures, exit ways and public ways as a result of an earthquake.

**SECTION 8-811
VENEERS**

8-811.1 Terra cotta and stone. Terra cotta, cast stone and natural stone veneers shall be investigated for the presence of suit-

able anchorage. Steel anchors shall be investigated for deterioration or corrosion. New or supplemental anchorage shall be provided as appropriate.

8-811.2 Anchorage. Brick veneer with mechanical anchorage at spacings greater than required by the regular code may remain, provided the anchorages have not corroded. Nail strength in withdrawal in wood sheathing may be utilized to its capacity in accordance with code values.

**SECTION 8-812
GLASS AND GLAZING**

8-812.1 Glazing subject to human impact. Historical glazing material located in areas subject to human impact may be approved subject to the concurrence of the enforcing agency when alternative protective measures are provided. These measures may include, but not be limited to, additional glazing panels, protective film, protective guards or systems, and devices or signs which would provide adequate public safety.

8-812.2 Glazing in fire-rated systems. See Section 8-402.3.

**TABLE 8-8A
STRENGTH VALUES FOR EXISTING MATERIALS**

EXISTING MATERIALS OR CONFIGURATIONS OF MATERIALS ¹	STRENGTH LEVEL CAPACITY x14.594 for N/m
1. Horizontal diaphragms ² 1.1 Roofs with straight sheathing and roofing applied directly to the sheathing 1.2 Roofs with diagonal sheathing and roofing applied directly to the sheathing 1.3 Floors with straight tongue-and-groove sheathing 1.4 Floors with straight sheathing and finished wood flooring with board edges offset or perpendicular 1.5 Floors with diagonal sheathing and finished	300 lbs per foot for seismic shear 750 lbs per foot for seismic shear 300 lbs per foot for seismic shear 1,500 lbs per foot for seismic shear 1,800 lbs per foot for seismic shear
2. Crosswalls ^{2,3} 2.1 Plaster on wood or metal lath 2.2 Plaster on gypsum lath 2.3 Gypsum wallboard, unblocked edges 2.4 Gypsum wallboard, blocked edges	Per side: 600 lbs per foot for seismic shear 550 lbs per foot for seismic shear 200 lbs per foot for seismic shear 400 lbs per foot for seismic shear
3. Existing footings, wood framing, structural steel and reinforcing steel 3.1 Plain concrete footings 3.2 Douglas fir wood 3.3 Reinforcing steel 3.4 Structural steel	$f'_c = 1,500$ psi (10.34 MPa) unless otherwise shown by tests ³ Allowable stress same as D.F. No. 1 ³ $f_t = 40,000$ lbs per square inch (124.1 N/mm ²) maximum $f_t = 33,000$ lbs per square inch (137.9 N/mm ²) maximum

¹Material must be sound and in good condition.

²Shear values of these materials may be combined, except the total combined value shall not exceed 900 pounds per foot (13,140 N/m).

³Stresses given may be increased for combinations of loads as specified in the regular code.

**TABLE 8-8B
STRENGTH VALUES OF NEW MATERIALS USED IN CONNECTION WITH EXISTING CONSTRUCTION**

NEW MATERIALS OR CONFIGURATIONS OF MATERIALS	STRENGTH LEVEL CAPACITY ¹
<p>1. Horizontal diaphragms²</p> <p>1.1 ¹⁵/₃₂ inch minimum plywood sheathing fastened directly over existing straight sheathing with edges of plywood located on center of individual sheathing boards and fastened with minimum #8x 1¹/₄ inch wood screws or nails with helical threads 0.13 inch min. diameter and 1¹/₄ inch min. length at 4 inch centers all panel edges and 12 inch centers each way in field.</p> <p>1.2 Same plywood and attachments as 1.1 fastened directly over existing diagonal sheathing.</p> <p>1.3 ³/₈ inch plywood sheathing fastened directly over existing straight or diagonal sheathing with ends and edges on centers of individual sheathing boards and fastened with #6 wood screws or nails with helical threads 0.13 inch minimum diameter and 1¹/₄ inch min. length at 6 inch centers tall panel edges and 12 inch centers each way in field.</p>	<p>1,500 lbs per foot</p> <p>1,800 lbs per foot</p> <p>900 lbs per foot</p>
<p>2. Shear walls: Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing</p>	<p>100 percent of the value specified in the regular code for shear walls</p>
<p>3. Crosswalls: (special procedure only)</p> <p>3.1 Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing</p> <p>3.2 Drywall or plaster applied directly over wood studs</p> <p>3.3 Drywall or plaster applied to sheathing over existing wood studs</p>	<p>133 percent of the value specified in the regular code for shear walls</p> <p>100 percent of the values in the regular code</p> <p>50 percent of the values specified in the regular code</p>
<p>4. Tension bolts</p> <p>a. Bolts extending entirely through unreinforced masonry walls secured with bearing plates on far side of a three-wythe-minimum wall with at least 30 square inches (19 350 mm²) of area^{4,5}</p> <p>b. All thread rod extending to the exterior face of the wall installed in adhesive⁹</p>	<p>5,400 lbs (24,010 N) per bolt⁶ 2,700 lbs (12,009 N) per bolt for two-wythe walls⁶</p> <p>3,600 lbs (16,014 N) per bolt</p>
<p>5. Shear bolts Bolts embedded a minimum of 8 inches (203 mm) into unreinforced masonry walls and centered in a 2¹/₂-inch-diameter (63.5 mm) hole filled with dry-pack or nonshrink grout. Through bolts with first 8 inches (203 mm) as noted above and embedded all thread rod as noted in Item 4.b^{5,7,9}</p>	<p>¹/₂ inch (12.7 mm) diameter = 1050 lbs (4671 N)⁶ ⁵/₈ inch (15.9 mm) diameter = 1500 lbs (6672 N)⁶ ³/₄ inch (19 mm) diameter = 2250 lbs (10,008 N)⁶</p>
<p>6. Infilled walls Reinforced masonry infilled openings in existing unreinforced masonry walls. Provide keys or dowels to match reinforcing.</p>	<p>Same as values specified for unreinforced masonry walls</p>
<p>7. Reinforced masonry Masonry piers and walls reinforced per the regular code</p>	<p>Same as values specified in the regular code⁸</p>
<p>8. Reinforced concrete Concrete footings, walls and piers reinforced as specified in the regular code and designed for tributary loads</p>	<p>Same values as specified in the regular code⁸</p>

¹Values are for strength level loads as defined in regular code standards.

²Values may be adjusted for other fasteners when approved by the enforcing authority.

³In addition to existing sheathing value.

⁴Bolts to be ¹/₂-inch (12.7 mm) minimum diameter.

⁵Other bolt sizes, values and installation methods may be used provided a testing program is conducted in accordance with regular code standards. Bolt spacing shall not exceed 6 feet. (1830 mm) on center and shall not be less than 12 inches (305 mm) on center

⁶Other masonry based on tests or other substantiated data.

⁷Embedded bolts to be tested as specified in regular code standards.

⁸Stresses given may be increased for combinations of loads as specified in the regular code.

⁹Adhesives shall be approved by the enforcing agency and installed in accordance with the manufacturer's recommendations. All drilling dust shall be removed from drilled holes prior to installation.

CHAPTER 8-9

MECHANICAL, PLUMBING AND ELECTRICAL REQUIREMENTS

SECTION 8-901 PURPOSE, INTENT AND SCOPE

8-901.1 Purpose. The purpose of the CHBC is to provide regulations for the mechanical, plumbing and electrical systems of buildings designated as qualified historical buildings or properties. The CHBC requires enforcing agencies to accept any reasonable equivalent solutions to the regular code when dealing with qualified historical buildings or properties.

8-901.2 Intent. The intent of the CHBC is to preserve the integrity of qualified historical buildings or properties while providing a reasonable level of protection from fire, health and life-safety hazards (hereinafter referred to as safety hazards) for the building occupants.

8-901.3 Scope. The CHBC shall be applied in conjunction with the regular code whenever compliance with the regular code is required for qualified historical buildings or properties.

8-901.4 Safety hazard. No person shall permit any safety hazard to exist on premises under their control, or fail to take immediate action to abate such hazard. Existing systems which constitute a safety hazard when operational may remain in place, provided they are completely and permanently rendered inoperative. Safety hazards created by inoperative systems shall not be permitted to exist. Requirements of the regular code concerning general regulations shall be complied with, except that the enforcing agency shall accept solutions which do not cause a safety hazard.

8-901.5 Energy conservation. Qualified historical buildings or properties covered by this part are exempted from compliance with energy conservation standards. When new nonhistorical lighting and space conditioning system components, devices, appliances and equipment are installed, they shall comply with the requirements of Title 24, Part 6, *The California Energy Code*, except where the historical significance or character-defining features are threatened.

SECTION 8-902 MECHANICAL

8-902.1 General. Mechanical systems shall comply with the regular code unless otherwise modified by this chapter.

8-902.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any heating, ventilating, air conditioning, domestic incinerators, kilns or miscellaneous heat-producing appliances or equipment within or attached to a historical building.

8-902.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-902.1.3 The enforcing agency may approve any alternative to the CHBC which would achieve equivalent life safety.

8-902.2 Heating facilities. All dwelling-type occupancies covered under this chapter shall be provided with heating facilities. Wood-burning or pellet stoves or fireplaces may be acceptable as heating facilities.

8-902.3 Fuel oil piping and tanks. Fuel oil piping and tanks shall comply with regular code requirements except that the enforcing agency may waive such requirements where the lack of compliance does not create a safety or environmental hazard.

8-902.4 Heat-producing and cooling equipment. Heat-producing and cooling equipment shall comply with the regular code requirements governing equipment safety, except that the enforcing agency may accept alternatives which do not create a safety hazard.

8-902.5 Combustion air.

8-902.5.1 All fuel-burning appliances and equipment shall be provided a sufficient supply of air for proper fuel combustion, ventilation and draft hood dilution.

8-902.5.2 The enforcing agency may require operational tests for combustion air systems which do not comply with applicable requirements of the regular code.

8-902.6 Venting of appliances.

8-902.6.1 Every appliance required to be vented shall be connected to an approved venting system. Venting systems shall develop a positive flow adequate to convey all combustion products to the outside atmosphere.

8-902.6.2 Masonry chimneys in structurally sound condition may remain in use for all fuel-burning appliances, provided the flue is evaluated and documentation provided that the masonry and grout are in good condition. Terra cotta chimneys and Type C metallic vents installed in concealed spaces shall not remain in use unless otherwise mitigated and approved on a case-by-case basis.

8-902.6.3 The enforcing agency may require operational tests for venting systems which do not comply with applicable requirements of the regular code.

8-902.7 Ducts.

8-902.7.1 New ducts shall be constructed and installed in accordance with applicable requirements of the regular code.

8-902.7.2 Existing duct systems which do not comply with applicable requirements of the regular code and do not, in the opinion of the enforcing agency, constitute a safety or health hazard may remain in use.

8-902.8 Ventilating systems.

8-902.8.1 Ventilating systems shall be installed so that no safety hazard is created.

8-902.8.2 Grease hoods and grease hood exhaust systems shall be furnished and installed in accordance with applicable requirements of the regular code. Existing systems which are altered shall comply with the regular code.

8-902.9 Miscellaneous equipment requirements.

8-902.9.1 The following appliances and equipment shall be installed so that no safety hazard is created: warm air furnaces, space heating equipment, vented decorative appliances, floor furnaces, vented wall furnaces, unit heaters, room heaters, absorption units, refrigeration equipment, duct furnaces, infrared radiant heaters, domestic incinerators, miscellaneous heat-producing appliances and water heaters.

8-902.9.2 Storage-type water heaters shall be equipped with a temperature- and pressure-relief valve in accordance with applicable requirements of the regular code.

**SECTION 8-903
PLUMBING**

8-903.1 General. Plumbing systems shall comply with the regular code unless otherwise noted.

8-903.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any plumbing system or equipment within or attached to a historical building.

8-903.1.2 Existing systems which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-903.1.3 The enforcing agency may approve any alternative to these regulations which achieves reasonably equivalent life safety.

8-903.2 Residential occupancies.

8-903.2.1 Where toilet facilities are provided, alternative sewage disposal methods may be acceptable if approved by the local health department. In hotels, where private facilities are not provided, water closets at the ratio of one for each 15 rooms may be acceptable.

8-903.2.2 Toilet facilities are not required to be on the same floor or in the same building as sleeping rooms. Water-flush toilets may be located in a building immediately adjacent to the sleeping rooms. When alternative sewage disposal methods are utilized, they shall be located a minimum distance from the sleeping rooms or other locations as approved by the local health department.

8-903.2.3 Kitchen sinks shall be provided in all kitchens. The sink and countertop may be of any smooth nonabsorbent finish which can be maintained in a sanitary condition.

8-903.2.4 Hand washing facilities shall be provided for each dwelling unit and each hotel guest room. A basin and pitcher may be acceptable as adequate hand washing facilities.

8-903.2.5 Hot or cold running water is not required for each plumbing fixture, provided a sufficient amount of water is supplied to permit the fixture's normal operation.

8-903.2.6 Bathtubs and lavatories with filler spouts less than 1 inch (25.4 mm) above the fixture rim may remain in use, provided there is an acceptable overflow below the rim.

8-903.2.7 Original or salvage water closets, urinals and flushometer valves shall be permitted in qualified historical buildings or properties. Historically accurate reproduction, nonlow-consumption water closets, urinals and flushometer valves shall be permitted except where historically accurate fixtures that comply with the regular code are available.

8-903.3 Materials. New nonhistorical materials shall comply with the regular code requirements. The enforcing agency shall accept alternative materials which do not create a safety hazard where their use is necessary to maintain the historical integrity of the building.

8-903.4 Drainage and vent systems. Plumbing fixtures shall be connected to an adequate drainage and vent system. The enforcing agency may require operational tests for drainage and vent systems which do not comply with applicable requirements of the regular code. Vent terminations may be installed in any location which, in the opinion of the enforcing agency, does not create a safety hazard.

8-903.5 Indirect and special wastes. Indirect and special waste systems shall be installed so that no safety hazard is created. Chemical or industrial liquid wastes which may detrimentally affect the sanitary sewer system shall be pretreated to render them safe prior to discharge.

8-903.6 Traps and interceptors. Traps and interceptors shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard. Properly maintained "S" and drum traps may remain in use.

8-903.7 Joints and connections.

8-903.7.1 Joints and connections in new plumbing systems shall comply with applicable requirements of the regular code.

8-903.7.2 Joints and connections in existing or restored systems may be of any type that does not create a safety hazard.

8-903.8 Water distribution. Plumbing fixtures shall be connected to an adequate water distribution system. The enforcing agency may require operational tests for water distribution systems which do not comply with applicable requirements of regular code. Prohibited (unlawful) connections and cross connections shall not be permitted.

8-903.9 Building sewers and private sewage disposal systems. New building sewers and new private sewage disposal systems shall comply with applicable requirements of the regular code.

8-903.10 Fuel-gas piping. Fuel-gas piping shall comply with the regular code requirements except that the enforcing agency shall accept solutions which do not increase the safety hazard.

SECTION 8-904 ELECTRICAL

8-904.1 General. Electrical systems shall comply with the regular code unless otherwise permitted by this code, or approved by the authority having jurisdiction.

8-904.1.1 The provisions of the CHBC shall apply to the acceptance, location, installation, alteration, repair, relocation, replacement or addition of any electrical system or portion thereof, the premise wiring, or equipment fixed in place as related to restoration within or attached to a qualified historical building or property.

8-904.1.2 Existing systems, wiring methods and electrical equipment which do not, in the opinion of the enforcing agency, constitute a safety hazard may remain in use.

8-904.1.3 The enforcing agency may approve any alternative to the CHBC which achieves equivalent safety.

8-904.1.4 Archaic methods that do not appear in present codes may remain and may be extended if, in the opinion of the enforcing agency, they constitute a safe installation.

8-904.2 Wiring methods.

8-904.2.1 Where existing branch circuits do not include an equipment grounding conductor and, in the opinion of the enforcing agency, it is impracticable to connect an equipment grounding conductor to the grounding electrode system, receptacle convenience outlets may remain the nongrounding type.

8-904.2.2 Ground fault circuit interrupter (GFCI) protected receptacles shall be installed where replacements are made at receptacle outlets that are required to be so protected by the regular code in effect at the time of replacement. Metallic face plates shall either be grounded to the grounded metal outlet box or be grounded to the grounding-type device when used with devices supplied by branch circuits without equipment grounding conductors.

8-904.2.3 Grounding-type receptacles shall not be used without a grounding means in an existing receptacle outlet unless GFCI protected. Existing nongrounding receptacles shall be permitted to be replaced with nongrounding or grounding-type receptacles where supplied through a ground fault circuit interrupter.

8-904.2.4 Extensions of existing branch circuits without equipment-grounding conductors shall be permitted to supply grounding-type devices only when the equipment grounding conductor of the new extension is grounded to any accessible point on the grounding electrode system.

8-904.2.5 Receptacle outlet spacing and other related distance requirements shall be waived or modified if determined to be impracticable by the enforcing agency.

8-904.2.6 For the replacement of lighting fixtures on an existing nongrounded lighting outlet, or when extending an existing nongrounding lighting outlet, the following shall apply:

1. The exposed conductive parts of lighting fixtures shall be connected to any acceptable point on the grounding electrode system, or

2. The lighting fixtures shall be made of insulating material and shall have no exposed conductive parts.

Exception: Lighting fixtures mounted on electrically nonconductive ceilings or walls where located not less than either 8 feet (2438 mm) vertically or 5 feet (1524 mm) horizontally from grounded surfaces.

8-904.2.7 Lighting load calculations for services and feeders may be based on actual loads as installed in lieu of the "watts per square foot" method.

8-904.2.8 Determination of existing loads may be based on maximum demand recordings in lieu of calculations, provided all of the following are met:

1. Recordings are provided by the serving agency.
2. The maximum demand data is available for a one-year period.

Exception: If maximum demand data for a one-year period is not available, the maximum demand data shall be permitted to be based on the actual amperes continuously recorded over a minimum 30-day period by a recording ammeter connected to the highest loaded phase of the feeder or service. The recording should reflect the maximum demand when the building or space is occupied and include the measured or calculated load at the peak time of the year, including the larger of the heating or cooling equipment load.

3. There has been no change in occupancy or character of load during the previous 12 months.
4. The anticipated load will not change, or the existing demand load at 125 percent plus the new load does not exceed the ampacity of the feeder or rating of the service.

CHAPTER 8-10

QUALIFIED HISTORICAL DISTRICTS, SITES AND OPEN SPACES

SECTION 8-1001 PURPOSE AND SCOPE

8-1001.1 Purpose. The purpose of this chapter is to provide regulations for the preservation, rehabilitation, restoration and reconstruction of associated historical features of qualified historical buildings, properties or districts (as defined in Chapter 8-2), and for which Chapters 8-3 through 8-9 of the CHBC may not apply.

8-1001.2 Scope. This chapter applies to the associated historical features of qualified historical buildings or properties such as historical districts that are beyond the buildings themselves which include, but are not limited to, natural features and designed site and landscape plans with natural and man-made landscape elements that support their function and aesthetics. This may include, but will not be limited to:

1. Site plan layout configurations and relationships (pedestrian, equestrian and vehicular site circulation, topographical grades and drainage, and use areas).
2. Landscape elements (plant materials, site structures other than the qualified historical building, bridges and their associated structures, lighting, water features, art ornamentation, and pedestrian, equestrian and vehicular surfaces).
3. Functional elements (utility placement, erosion control and environmental mitigation measures).

SECTION 8-1002 APPLICATION

8-1002.1 The CHBC shall apply to all sites and districts and their features associated with qualified historical buildings or qualified historical districts as outlined in 8-1001.2 Scope.

8-1002.2 Where the application of regular code may impact the associated features of qualified historical properties beyond their footprints, by work performed secondarily, those impacts shall also be covered by the CHBC.

8-1002.3 This chapter shall be applied for all issues regarding code compliance or other standard or regulation as they affect the purpose of this chapter.

8-1002.4 The application of any code or building standard shall not unduly restrict the use of a qualified historical building or property that is otherwise permitted pursuant to Chapter 8-3 and the intent of the *State Historical Building Code*, Section 18956.

SECTION 8-1003 SITE RELATIONS

The relationship between a building or property and its site, or the associated features of a district (including qualified historical landscape), site, objects and their features are critical components that may be one of the criteria for these buildings and properties to be qualified under the CHBC. The CHBC recognizes the importance of these relationships. This chapter shall be used to provide context sensitive solutions for treatment of qualified historical buildings, properties, district or their associated historical features, or when work to be performed secondarily impacts the associated historical features of a qualified historical building or property.

APPENDIX A

CHAPTER 8-1

When modification must be made to qualified historical buildings and properties, the CHBC is intended to work in conjunction with the United States Secretary of Interior Standards for the Treatment of Historic Properties with Guidelines for Pre-

servicing, Rehabilitating, Restoring and Reconstructing Historic Buildings and the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.

CHAPTER 8-6

TABLE 1—PROVISION APPLICABILITY

	Title II Public Entities	Title III Private Entities	Title III Barrier Removal
<p>SECTION 8-601 PURPOSE, INTENT, SCOPE</p> <p>8-601.1 Purpose. The purpose of the CHBC is to provide alternative regulations to facilitate access and use by persons with disabilities to and throughout facilities designated as qualified historical buildings or properties. These regulations require enforcing agencies to accept alternatives to regular code when dealing with qualified historical buildings or properties.</p> <p>8-601.2 Intent. The intent of this chapter is to preserve the integrity of qualified historical buildings and properties while providing access to and use by people with disabilities.</p> <p>8-601.3 Scope. The CHBC shall apply to every qualified historical building or property that is required to provide access to people with disabilities.</p> <ol style="list-style-type: none"> 1. Provisions of this chapter do not apply to new construction or reconstruction/replicas of historical buildings. 2. Where provisions of this chapter apply to alteration of qualified historical buildings or properties, alteration is defined in <i>California Building Code (CBC)</i>, Chapter 2, Definitions and Abbreviations. 202 – A. Alter or Alteration. <p>8-601.4 General application. The provisions in the CHBC apply to local, state and federal governments (Title II entities); alteration of commercial facilities and places of public accommodation (Title III entities); and barrier removal in commercial facilities and places of public accommodation (Title III entities). Except as noted in this chapter.</p>	Applies	Applies	Applies
<p>SECTION 8-602 — BASIC PROVISIONS</p> <p>8-602.1 Regular code. The regular code for access for people with disabilities (Title 24, Part 2, Vol. 1, Chapter 11B) shall be applied to qualified historical buildings or properties unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property.</p> <p>8-602.2 Alternative provisions. If the historical significance or character-defining features are threatened, alternative provisions for access may be applied pursuant to this chapter, provided the following conditions are met:</p> <ol style="list-style-type: none"> 1. These provisions shall be applied only on an item-by-item or case-by-case basis. 2. Documentation is provided, including meeting minutes or letters, stating the reasons for the application of the alternative provisions. Such documentation shall be retained in the permanent file of the enforcing agency. 	Applies	Applies	Applies

(continued)

TABLE 1—PROVISION APPLICABILITY—continued

	Title II Public Entities	Title III Private Entities	Title III Barrier Removal
SECTION 8-603 — ALTERNATIVES			
8-603.1 Alternative minimum standards. The alternative minimum standards for alterations of qualified historical buildings or facilities are contained in Section 4.1.7(3) of ADA Standards for Accessible Design, as incorporated and set forth in federal regulation 28 C.F.R. Pt. 36.	Applies	Applies	Applies
8-603.2 Entry. These alternatives do not allow exceptions for the requirement of level landings in front of doors, except as provided in Section 8-603.4.	Applies	Applies	Applies
<ol style="list-style-type: none"> 1. Access to any entrance used by the general public and no further than 200 feet (60 960 mm) from the primary entrance. 2. Access at any entrance not used by general public but open and unlocked with directional signs at the primary entrance and as close as possible to, but no further than 200 feet (60 960 mm) from, the primary entrance. 3. The accessible entrance shall have a notification system. Where security is a problem, remote monitoring may be used. 			
8-603.3 Doors. Alternatives listed in order of priority are:	Does not apply	Does not apply	Applies
<ol style="list-style-type: none"> 1. Single-leaf door which provides a minimum 30 inches (762 mm) of clear opening. 2. Single-leaf door which provides a minimum 29½ inches (749 mm) clear opening. 3. Double door, one leaf of which provides a minimum 29½ inches (749 mm) clear opening. 4. Double doors operable with a power-assist device to provide a minimum 29½ inches (749 mm) clear opening when both doors are in the open position. <p>Exception: Alternatives in this section do not apply to alteration of commercial facilities and places of public accommodation (Title III entities).</p>			
8-603.4 Power-assisted doors. Power-assisted door or doors may be considered an equivalent alternative to level landings, strikeside clearance and door-opening forces required by regular code.	Applies	Applies	Applies
8-603.5 Toilet rooms. In lieu of separate-gender toilet facilities as required in the regular code, an accessible unisex toilet may be designated.	Applies	Applies	Applies
8-603.6 Exterior and interior ramps and lifts. Alternatives listed in order of priority are:	Applies	Applies	Applies
<ol style="list-style-type: none"> 1. A lift or a ramp of greater than standard slope but no greater than 1:10, for horizontal distances not to exceed 5 feet (1525 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope. 2. Access by ramps of 1:6 slope for horizontal distance not to exceed 13 inches (330 mm). Signs shall be posted at upper and lower levels to indicate steepness of the slope. 			

(continued)

TABLE 1—PROVISION APPLICABILITY—continued

	Title II Public Entities	Title III Private Entities	Title III Barrier Removal
<p>SECTION 8-604 — EQUIVALENT FACILITATION</p> <p>Use of other designs and technologies, or deviation from particular technical and scoping requirements, are permitted if the application of the alternative provisions contained in Section 8-603 would threaten or destroy the historical significance or character-defining features of the qualified historical building or property.</p> <ol style="list-style-type: none"> Such alternatives shall be applied only on an item-by-item or case-by-case basis. Access provided by experiences, services, functions, materials and resources through methods including, but not limited to, maps, plans, videos, virtual reality and related equipment, at accessible levels. The alternative design and/or technologies used will provide substantially equivalent or greater accessibility to, and usability of, the facility. The official charged with the enforcement of the standards shall document the reasons for the application of the design and/or technologies and their effect on the historical significance or character-defining features. Such documentation shall be in accordance with Section 8-602.2, Item 2, and shall include the opinion and comments of state or local accessibility officials, and the opinion and comments of representative local groups of people with disabilities. Such documentation shall be retained in the permanent file of the enforcing agency. Copies of the required documentation should be available at the facility upon request. <p>Note: For commercial facilities and places of public accommodation (Title III entities).</p> <p>Equivalent facilitation for an element of a building or property when applied as a waiver of an ADA accessibility requirement will not be entitled to the Federal Department of Justice certification of this code as rebuttable evidence of compliance for that element.</p>	Applies	<p>Waivers</p> <p>If a builder applies for a waiver of an ADA accessibility requirement for an element of a building, he or she will not be entitled to certification's rebuttable evidence of compliance for that element. This limitation on the certification determination should be noted in any publication of Chapter 8-6 if certification is granted.</p>	Applies

Notes: The regular code for Chapter 8-6 is contained in Title 24, Part 2, Vol.1, Chapter 11, which contain standards for new construction. Provisions of this chapter may be used in conjunction with all other provisions of the regular code and ADA regulations.

HISTORY NOTE APPENDIX
CALIFORNIA HISTORICAL BUILDING CODE
(Title 24, Part 8, California Code of Regulations)

For prior history, see History Note Appendix to the *California Historical Building Code*, 2010 Triennial Edition, effective January 1, 2011.

1. Editorial correction to Chapter 8-8, Section 8-812, Tables 8-8A and 8-8B. Include missing tables in 2007 annual code adoption supplement.

2. SHBSB 01/10 – Repeal and amend Chapters 8-7 and 8-8 of the 2010 *California Historical Building Code*, CCR, Title 24, Part 8 regulated by the State Historical Building Safety Board, effective on July 1, 2012.

3. Repeal the 2010 *California Historical Building Code*, CCR, Title 24, Part 8 and adopt the 2013 *California Historical Building Code*, CCR, Title 24, Part 8 approved by the Building Standards Commission on December 12, 2012. Published on July 1, 2013 and effective on January 1, 2014.

**LOS ANGELES UNIFIED SCHOOL DISTRICT
NEW SCHOOL CONSTRUCTION PROGRAM**

**PROGRAM ENVIRONMENTAL IMPACT REPORT
EXEMPTIONS**

CHATTEL ARCHITECTURE, PLANNING & PRESERVATION, INC.

SEPTEMBER 2005

**LOS ANGELES UNIFIED SCHOOL DISTRICT NEW SCHOOL CONSTRUCTION PROGRAM
PROGRAM ENVIRONMENTAL IMPACT REPORT EXEMPTIONS**

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INTRODUCTION

Starting in 1994, scores of Los Angeles Unified School District- (LAUSD-) owned properties have been evaluated for historic significance and as a result, a number have been found to be, or to contain, historical resources. As a result, of the more than 700 school campuses and buildings in the LAUSD system, 410 such properties have been evaluated for historic significance.¹ The 410 surveyed properties were at least 45 years of age at the time of the evaluation (built before 1955). An additional list of 22 post World War II–era campuses was most recently recommended for future re-evaluation but such an evaluation has not been undertaken to date. Of the 400+ evaluated pre-1955 properties, 123 were found to appear eligible for listing in the California Register of Historical Resources (California Register), that is, they qualify as “historical resources” as defined in the California Environmental Quality Act (CEQA). The two resulting lists of resources and additional list of post World War II properties are contained at the end of this document.

This document was prepared to provide LAUSD with a guide to tasks for alteration of historical resources that would be generally exempt from CEQA review. It is intended to create

an exemption for projects involving the maintenance, rehabilitation, restoration, [or] preservation... of historical resources, provided that the activity meets published federal standards for the treatment of historic properties. These federal standards describe means of preserving, rehabilitating, restoring, and reconstructing historic buildings without adversely affecting their historic significance. Use of this exemption, like all categorical exemptions, is limited by the factors described in CEQA Guidelines §15300.2 and is not to be used where the activity would cause a substantial adverse change in the significance of a historical resource.²

To ensure that proposed work does not cause substantial adverse change in the significance of a historical resource, nearly all alterations, modifications, additions or repairs to LAUSD-owned properties that are considered historical resources under CEQA should be evaluated for conformance with *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (Secretary’s Standards)*³ by a consultant who meets the Secretary of the Interior’s Professional Qualifications Standards in 36 CFR Part 61, in either architectural history or historic architecture (hereinafter “qualified architectural historian”).⁴ However, given the number of historical resources owned by LAUSD and the constant cycle of maintenance and repair that must be accomplished, it has been determined that there are a range of tasks that may be undertaken on historical resources without review by a qualified architectural historian.

¹ Three surveys to evaluate the historic significance of these properties have been conducted. The surveys are: Federal Emergency Management Agency (FEMA, 1994) and “Phase I” (Phase 1 Getty, 2001-2002), both under a Planning Grant from Preserve LA Initiative, through J. Paul Getty Trust, and “Phase 2 Final Database” by Leslie Heumann and Associates, Aspen Environmental Group (Phase 2 Getty, 2004).

² CEQA Title 14. *California Code of Regulations*, Chapter 3. Guidelines for Implementation of the California Environmental Quality Act, Article 19. Categorical Exemptions <http://ceres.ca.gov/topic/env_law/ceqa/guidelines/art19.html>

³ Kay D. Weeks and Anne E. Grimmer *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (Washington, D.C.: National Park Service, 1995) <<http://www.cr.nps.gov/hps/tps/secstan1.htm>.

Hereinafter *Secretary’s Standards*.

⁴ As described in *LAUSD New School Construction Program EIR*, Appendix E.2 LAUSD Cultural Assessment Procedures (March 2004).

DEFINITIONS

Key terms used and programs referenced in this document are defined below.

California Register of Historical Resources

The *California Register of Historical Resources* (California Register) was established to serve as an authoritative guide to the state's significant historical and archaeological resources (*California Public Resources Code, PRC §5024.1*). State law provides that in order for a property to be considered eligible for listing in the California Register, it must be found by the State Historical Resources Commission to be significant under any of the following four criteria; if the resource:

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

In addition to meeting one of the four above criteria, properties eligible for the California Register must also retain sufficient integrity to convey their historic significance. California Register regulations contained in Title 14, Division 3, Chapter 11.5, §4852 (c), provide, "It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register." The California Office of Historic Preservation (OHP) has consistently interpreted this to mean that a property eligible for listing in the California Register must retain "substantial" integrity.

The California Register also includes properties which: have been formally *determined eligible for listing in*, or are *listed in* the National Register of Historic Places (National Register); are registered State Historical Landmark Number 770, and all consecutively numbered landmarks after Number 770; points of historical interest, which have been reviewed and recommended to the State Historical Resources Commission for listing; and city and county-designated landmarks or districts (if criteria for designation are determined by OHP to be consistent with California Register criteria (*PRC §5024.1(d)*). *PRC §5024.1* states:

- (g) A resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria:
 - (1) The survey has been or will be included in the State Historical Resources Inventory.
 - (2) The survey and the survey documentation were prepared in accordance with [OHP]... procedures and requirements.
 - (3) The resource is evaluated and determined by the office to have a significance rating of category 1 to 5 on DPR [California Department of Parks and Recreation] form 523.
 - (4) If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further

documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

CEQA Categorical Exemption

The *CEQA Categorical Exemption* is described in the CEQA Guidelines §15331 as:

projects limited to maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of historical resources in a manner consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (Secretary's Standards)*.

Character-Defining Features

Character-defining features are defined by the National Park Service as “all those visual aspects and physical features that comprise the appearance of ...historic building(s).” “Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.”⁵ It is necessary to define these materials, features and spaces that collectively make a property significant before planning or initiating alterations.

Historical Resources

A *historical resource* is defined in CEQA as

a resource listed in, or determined eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources..., or deemed significant pursuant to criteria set forth in subdivision (g) of §5024.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant (*PRC* §21084.1).

In Kind

Replacement of a feature *in kind* means to substitute it with a new feature that matches the existing exactly in material, finish, appearance, profile, thickness, dimensions, shape and form. Replacement is not appropriate unless the feature is deteriorated beyond repair (e.g. more than 50 percent unusable). Unless the feature to be replaced is utilitarian (such as standard hardware, like brass screws) or not visible (as in hidden inside a wall), dated photographs of the feature to be replaced must be taken before replacement has been undertaken to document its condition; and after the work has been completed, to document that the new feature is an appropriate replacement. These dated photographs must be maintained in the property's permanent administrative or facilities records for review. Refer to definition for *replacement*.

⁵ National Park Service (Lee H. Nelson, FAIA) Preservation Brief 17 “Architectural Character Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character” (Washington, DC: National Park Service, Technical Preservation Series) np <<http://www.cr.nps.gov/hps/tps/briefs/brief17.htm>>

Preservation

Preservation is one of the four treatment approaches to making appropriate alterations to historic properties. The others are *rehabilitation*, *restoration*, and *reconstruction* (described below). *Preservation* “places a high premium on the retention of all historic fabric through conservation, maintenance and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made.”⁶ “Both *preservation* and *rehabilitation* standards focus attention on “preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.” While *preservation* as a treatment can accommodate “limited and sensitive” code-required changes, its philosophy does not extend to include alterations as are often necessary to accommodate the changing needs of LAUSD. For this reason, *preservation* will not normally be the appropriate treatment for LAUSD-owned historical resources.

Qualified Architectural Historian

A *qualified architectural historian* investigates and evaluates architectural resources in connection with proposed school alteration (including modifications, additions and repair) projects and new school construction. A *qualified architectural historian* must meet the minimum requirements of the Secretary of the Interior’s Professional Qualifications Standards (36 *Code of Federal Regulations (CFR)* Part 61, Appendix A), in architectural history or historic architecture.

Reconstruction

One of the four basic approaches to historic preservation, *reconstruction* is used

When a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction. Prior to undertaking work, a documentation plan for Reconstruction should be developed.⁷

The *Secretary of the Interior’s Standards for Reconstruction and Guidelines for Reconstructing Historic Buildings* are used to guide work when it is appropriate to recreate a no longer extant building or important feature (such as a fountain) of a property using entirely new material. Reconstruction is generally only used when the building or feature no longer exists. The objective for *reconstruction* is to have the building or feature appear “as it did at a particular--and most significant--time in its history,” much like restoration. It includes strict requirements for documentation both before and after such work is undertaken. This treatment is rarely appropriate and for LAUSD can only be undertaken using and following the recommendations of a consulting qualified architectural historian. After a reconstruction project of this type is completed, it is imperative that it be identified as a new example of a non-surviving building or feature.

Rehabilitation

Rehabilitation is the treatment among the four historic preservation approaches that will generally be the most appropriate for LAUSD projects related to historic properties. It is used “when repair and replacement of deteriorated features are necessary; when alterations or additions to the property are

⁶ *Secretary’s Standards* np.

⁷ *Secretary’s Standards* 169.

planned for a new or continued use; and when its depiction at a particular period of time is not appropriate...”⁸ Basic components of *rehabilitation* include identification, retention and preservation of historic materials and features, while protecting, maintaining and repairing those materials and features. *Rehabilitation* can allow replacement of materials and features when repair cannot be achieved and also accommodates replacement of missing historic features, based either on prior evidence or with contemporary, compatible, differentiated new features. It can allow new additions on non-character defining elevations and the most latitude for modifications based on energy efficiency, accessibility considerations, and fire and life safety codes.

Of all the treatments, *rehabilitation* allows the most change in the historical resource, while protecting and maintaining building materials and character-defining features. More leniency is allowed to replace “deteriorated, damaged, or missing features using either traditional or substitute materials.” It is the only approach that grants the possibility to continue a property’s functional use by allowing thoughtful additions and alterations.

The standards for rehabilitation are as follows:

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

⁸ Secretary’s Standards 61.

Repair

According to the *Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings*, *repair* is recommended when the “physical condition of character-defining materials and features warrants additional work.” The guidance for *repair* is as follows:

Rehabilitation guidance for the repair of historic materials such as masonry, wood, and architectural metals... begins with the *least degree of intervention* possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading... according to recognized preservation methods. Repairing also includes the *limited replacement in kind*--or with compatible substitute material-- of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, *substitute material... [can be] acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish* [emphasis added].⁹

Thus repair of a surviving feature is always more appropriate than its replacement, which must be justified.

Restoration

Restoration as an approach is “the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.” *Restoration* is appropriate

When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, restoration may be considered as a treatment. Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for Restoration developed [emphasis added].¹⁰

Part of the goal of restoration is to make a building appear as it did at a specific point in time. Although it can allow for limited and sensitive changes to mechanical, electrical and plumbing systems for code compliance, restoration will not generally be the appropriate treatment for LAUSD-owned properties.

Replacement

In some cases, features or materials will be deteriorated beyond a point where repair would be possible. In general, at least 50 percent of the feature or material must be so deteriorated that it is beyond repair, in order to justify its *replacement*. Refer to definition for *in kind*. In cases where *replacement* is necessary, specific guidance provided in the *Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings* is as follows:

If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation, then its replacement is appropriate.

⁹ *Secretary's Standards* 63, 64.

¹⁰ *Secretary's Standards* 121.

Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the...guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, they never recommend removal and replacement with new material of a feature that--although damaged or deteriorated--could reasonably be repaired and thus preserved.¹¹

Replacement is only warranted where the feature cannot be repaired, not if repair is difficult or time-consuming. Every effort at repair should be exhausted before the decision is made to replace a feature. As described in Activities Exempt for Review, replacements without review and approval of a qualified architectural historian will only be acceptable when the feature can be replaced as original. If the original material is archaic and cannot be obtained, a qualified architectural historian must be consulted. When replacement is undertaken, the new feature must match the existing one in every way possible - it is almost never acceptable to use the closest stock or off-the-shelf item. Unless the feature to be replaced is utilitarian (such as standard hardware, like brass screws) or not visible (as in hidden inside a wall), dated photographs of the feature to be replaced must be taken before replacement to document its condition, and after work is completed to document that the new feature is an appropriate replacement. These dated photographs must be maintained in the property's permanent, on-site administrative or facilities records for review. Refer to definition for *in kind*.

Substantial Adverse Change

"*Substantial adverse change* in the significance of an historical resource means the 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" (PRC §15064.5 (b)(1)). Substantial adverse change is the test for impacts to historical resources under CEQA. PRC §15064.5 (b)(2) describes *material impairment* taking place when a project:

- (a) 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
- (b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register... or its identification in an historical resources survey... 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) Demolishes or materially alters 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... as determined by a lead agency for the purposes of CEQA.

If a proposed alteration, modification, addition or repair to a property that meets the definition of an historical resource were expected to cause *substantial adverse change* in the historical resource, environmental clearance for the project would require mitigation measures to reduce impacts. No such alterations should be undertaken without consulting and following the recommendations of a qualified architectural historian and completing environmental clearance prior to undertaking the project.

¹¹ Secretary's Standards 64.

The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (Secretary’s Standards)

The *Secretary’s Standards* were developed to guide work undertaken on historic buildings with the intention of assisting the long-term preservation of a property’s significance through the preservation of historic materials and features. The *Secretary’s Standards* contain guidelines for the four different treatment approaches: *preservation, rehabilitation, restoration* and *reconstruction*. These guidelines are widely used by federal, state, and local government officials to review projects proposed for historic properties.

CEQA provides that the effects of projects found to be “consistent with” the *Secretary’s Standards* “shall generally be considered mitigated below a level of significance and thus *not significant*” under *PRC* §15126.4(b)(1) (emphasis added). Further, CEQA provides an exemption for projects “limited to... rehabilitation... in a manner consistent with” the *Secretary’s Standards* under regulations in *PRC* §15331.

The following pages contain an overall listing of alteration activities for historical resources that can be accomplished without review by a qualified architectural historian (unless noted). While this list is intended to be as complete as possible, it may not cover all potential issues related to alteration, including maintenance, rehabilitation, restoration, or preservation of historical resources and may be updated as necessary.

Unless there is a question or some level of uncertainty whether or not a task should be done or how it can be properly accomplished without causing harm, this provides guidance on basic alterations, including maintenance, rehabilitation, restoration, or preservation of historical resources that can be undertaken without oversight of a qualified architectural historian.

ACTIVITIES EXEMPT FROM REVIEW

For identified historical resources, the following list describes limited tasks that are generally exempt from review by a qualified architectural historian. If there is any question whether the task is appropriate for the historical resource, a qualified architectural historian should be consulted, their recommendations followed, and a record retained in the facility's permanent files. Likewise, if the correct course of action cannot be readily identified, a qualified architectural historian must be consulted before commencing any such work. Care must be taken to ensure that tasks are undertaken in precisely the manner described below. Clear, dated documentation photographs must be taken of repaired, replaced or altered areas or features, both before and after the task has been executed, and these photographs must be retained in permanent on-site facilities or administration records. Exceptions to these exempted activities are also noted.

Copies of this complete guidance shall be distributed to and retained by all Facilities, Construction and related staff as well as administration and maintenance at each LAUSD-owned identified historical resource properties (and all subsequently identified historical resources), on a continual basis. A more detailed plan for distribution of this document may be set forth in the future as an amendment, if necessary. Additional guidance on nearly every task described below is described in the section immediately following, Preservation Briefs, and in the guidance contained in those briefs.

The list and description of exempt activities is as follows:

Interior

1. Repair of floors, when work is accomplished in kind, to precisely match existing materials and form. Any sources of damage, such as moisture or damage from another object, must be identified and remedied prior to undertaking repairs, to ensure against future harm.

Refer to Preservation Briefs 6 "Dangers of Abrasive Cleaning to Historic Buildings," 17 "Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character," 18 "Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements," 35 "Understanding Old Buildings: The Process of Architectural Investigation," 39 "Holding the Line: Controlling Unwanted Moisture in Historic Buildings" and 40 "Preserving Historic Ceramic Tile Floors."

2. Floor refinishing shall be accomplished to exactly match existing finish, so long as the refinishing product is water-based and is removable using gentlest means possible. Stone, brick and tile floors shall NOT be sealed or stained.

Refer to Preservation Briefs 15 "Preservation of Historic Concrete: Problems and General Approaches," 18 "Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements," 28 "Painting Historic Interiors," 35 "Understanding Old Buildings: The Process of Architectural Investigation," 40 "Preserving Historic Ceramic Tile Floors" and 42 "The Maintenance, Repair and Replacement of Historic Cast Stone."

3. Repair of interior walls, including plaster and drywall, to exactly match existing; this can include repair of interior cracks up to one-inch wide. Any material used to repair such cracks shall match the color and finish of the existing materials. The repairs must be restricted to the damaged area and care must be taken to avoid damage to adjacent materials. This exemption does NOT apply to walls that have decorative plaster trim or other finishes that contribute to the architectural significance of the property.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 21 “Repairing Historic Flat Plaster - Walls and Ceilings,” 22 “The Preservation and Repair of Historic Stucco,” 23 “Preserving Historic Ornamental Plaster,” 28 “Painting Historic Interiors” and 34 “Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament.”

4. Removal of loose and flaking paint, only if it can be accomplished using the least invasive techniques possible: those are limited to light sanding, preferably by hand (light sanding does NOT allow overall exposure of bare wood or other materials) and hand scraping. Paint removal or destructive surface preparation treatments including low-, medium- and high-pressure water blasting, sandblasting or chemical cleaning shall NOT be used. Painted surfaces shall be repainted to match the pre-existing finish, while any interior or exterior surfaces that do not show evidence of previous paint application shall remain unpainted. Decorative paint and plaster treatments, including murals, shall NOT be retouched, overpainted, plastered, drywalled, or paneled over.

Refer to Preservation Briefs 6 “Dangers of Abrasive Cleaning to Historic Buildings,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 23 “Preserving Historic Ornamental Plaster,” 28 “Painting Historic Interiors,” 34 “Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament,” 35 “Understanding Old Buildings: The Process of Architectural Investigation” and 37 “Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing.”

5. Repair of interior stairs when work is accomplished in kind to exactly match existing materials, in profile, thickness, dimensions, shape, form and finishes.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 28 “Painting Historic Interiors” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

6. Repair or replacement of suspended ceiling tiles when work is done in kind to exactly match existing in profile, thickness, dimensions, shape, form and finishes.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

7. Installation of grab bars and minor interior modifications for ADA accessibility. Such installations shall NOT use fasteners drilled into any part of tile, stone, brick or other masonry; such penetrations are only allowable in grout or mortar. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout or mortar.

Portland cement shall NOT be used for such patching or repairs under any circumstances. Any grout or mortar repair material must be the same strength or weaker than the original material and must match the original in appearance, color, texture (sanded versus non-sanded) and tooling or striking method.

Refer to Preservation Briefs 7 “The Preservation of Historic Glazed Architectural Terra-Cotta” and 32 “Making Historic Properties Accessible.”

8. Repair or replacement of free-standing furniture and equipment. Alteration of built-in cabinetry, furniture, or bookshelves (casework) shall NOT be included in this exemption unless it is limited to in kind repair. Such work shall be undertaken in the sequence identified in the *Secretary's Standards*: patching, piecing-in, splicing, consolidating, or otherwise reinforcing . The least invasive approach shall be used. Any of these approaches must match existing material as closely as possible (in profile, thickness, dimensions, shape and form) and painted or refinished to match existing. Previously unpainted casework shall not be painted and painted casework shall not be stripped of paint without consultation and approval by a qualified architectural historian.

Refer to Preservation Briefs 17 "Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character," 18 "Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements," 28 "Painting Historic Interiors" and 35 "Understanding Old Buildings: The Process of Architectural Investigation."

Mechanical, Electrical and Plumbing

9. No window- or wall-mounted air conditioners, heating or air filtration devices shall be installed.

Refer to Preservation Brief 24 "Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches."

10. Replacement or installation of insulation, provided that decorative interior plaster, woodwork or exterior siding is not altered by this work item. Use of urea formaldehyde foam insulation or any other thermal insulation that contains water in its chemical composition and is installed within wall cavities shall NOT be included in this exemption.

Refer to Preservation Brief 3 "Conserving Energy in Historic Buildings."

11. Installation of mechanical equipment within exterior perimeter walls and beneath the roof of a building such that it does not affect the exterior appearance of the building or require installation of new duct work in the interior. Such installations shall NOT use fasteners drilled into any part of tile, stone, brick or other masonry; such penetrations are only allowable in grout or mortar. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout or mortar.

Refer to Preservation Briefs 3 "Conserving Energy in Historic Buildings" and 24 "Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches."

12. Repair or replacement of minor electrical work within building, limited to upgrading or replacement of wiring and utilitarian components (e.g. junction boxes, conduit, panels, sub panels, utilitarian sockets), with the exception of fixtures and decorative or archaic switches that shall be repaired wherever possible. If such repair or replacement necessitates opening walls, the walls shall be closed, repaired, and re-painted in kind to match existing finishes. Boxes shall be flush mounted (inset) in walls and recessed with appropriate front plate. Surface-mounted conduit will be acceptable in applications of less than 20 lineal feet per run, and only when affixed to easily repairable surfaces (e.g. plaster, grout, non-decorative painting, simple woodwork or paneling) and painted to match existing wall finish. Such installations shall NOT use fasteners drilled into any part of tile, stone, brick or other masonry; such penetrations are only allowable in grout or mortar. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout or mortar.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 21 “Repairing Historic Flat Plaster - Walls and Ceilings,” 22 “The Preservation and Repair of Historic Stucco,” 23 “Preserving Historic Ornamental Plaster” and 28 “Painting Historic Interiors.”

13. Replacement or installation of fire or smoke detectors. Care should be taken to avoid damage or alteration of surrounding finishes or materials when installing these features. This exemption does NOT apply where installation of these items would result in damage to surrounding finishes or features. Such installations shall NOT use fasteners drilled into any part of tile, stone, brick or other masonry; such penetrations are only allowable in grout or mortar. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout or mortar.

Refer to Preservation Brief 24 “Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches.”

14. Minor plumbing work within buildings, limited to upgrading or in kind replacement of pipes and other utilitarian components, with the exception of historic or archaic fixtures that shall be repaired when possible. Plumbing fixtures such as sinks and toilets shall NOT be replaced unless the fixture cannot be repaired (more than 50 percent unusable, refer to definition of *replacement*), and then shall be replaced in kind.

Refer to Preservation Briefs 7 “The Preservation of Historic Glazed Architectural Terra-Cotta,” 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

Exterior

15. Repair, or partial replacement of existing porch components, including cornices, exterior siding, doors, balustrades, stairs, or other trim, only if the existing feature cannot be repaired. The repair or replacement must be accomplished in kind to exactly match existing material (in profile, dimensions, shape, thickness and form) and painted, where applicable, to match existing finish. Such work must be undertaken in the sequence identified in the *Secretary’s Standards*: patching, piecing-in, splicing, consolidating, otherwise reinforcing or upgrading. The least invasive approach shall be used.

Refer to Preservation Briefs 1 “Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings,” 6 “Dangers of Abrasive Cleaning to Historic Buildings,” 7 “The Preservation of Historic Glazed Architectural Terra-Cotta,” 10 “Exterior Paint Problems on Historic Woodwork,” 16 “The Use of Substitute Materials on Historic Building Exteriors,” 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 35 “Understanding Old Buildings: The Process of Architectural Investigation” and 38 “Removing Graffiti from Historic Masonry.”

Doors and Windows

16. Repair of interior or exterior doors, frames and thresholds when such work is undertaken in the sequence identified in the *Secretary’s Standards*: patching, piecing-in, splicing, consolidating, or otherwise reinforcing . The least invasive approach shall be used. Any of these approaches shall

match existing material as closely as possible (in profile, thickness, dimensions, shape and form) and painted or refinished, consistent with pre-existing finishes.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 28 “Painting Historic Interiors” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

17. Replacement of damaged security devices or installation of new security devices consistent with original or pre-existing finishes including cameras, dead bolts, door locks, window latches, door peepholes or intrusion detection devices. Such installations shall NOT use fasteners drilled into any part of tile, stone, brick or other masonry; such penetrations are only allowable in grout or mortar. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout or mortar.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 28 “Painting Historic Interiors” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

18. Caulking and weather-stripping shall be accomplished with compatibly colored materials.

Refer to Preservation Brief 3 “Conserving Energy in Historic Buildings.”

19. Replacement of clear window panes in kind, so long as the broken glass and replacement glass are clear and un-tinted; and replacement glass does not alter the existing window material, form or appearance. The glass shall be glazed in a manner appropriate for the window (e.g. finished using properly smoothed glaziers’ putty, painted wood stops, etc.), and to match glazing methods in other panes of glass in same window. Replacement of existing archaic, textured, decorative, or tinted glass is NOT included in this exemption.

Refer to Preservation Briefs 9 “The Repair of Historic Wooden Windows,” 11 “Rehabilitating Historic Storefronts,” 12 “The Preservation of Historic Pigmented Structural Glass (Vitrolite and Carrara Glass),” 13 “The Repair and Thermal Upgrading of Historic Steel Windows,” 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements,” 28 “Painting Historic Interiors” and 35 “Understanding Old Buildings: The Process of Architectural Investigation.”

20. Repair of window sash, frames and sills when such work is undertaken in the sequence identified in the *Secretary’s Standards*; patching, piecing-in, splicing, consolidating, or otherwise reinforcing. The least invasive approach shall be used. Any of these approaches must match existing material as closely as possible (in profile, thickness, dimensions, shape and form) and be painted or finished to match existing finish. Replacement of any of these features shall NOT be exempted.

Refer to Preservation Briefs 9 “The Repair of Historic Wooden Windows,” 10 “Exterior Paint Problems on Historic Woodwork,” 12 “The Preservation of Historic Pigmented Structural Glass (Vitrolite and Carrara Glass),” 13 “The Repair and Thermal Upgrading of Historic Steel Windows” and 33 “The Preservation and Repair of Historic Stained and Leaded Glass.”

Roofs and Related Features

21. Repair of roofing, gutters and downspouts shall be accomplished in kind to exactly match existing materials (in profile, dimensions, including thickness, shape and form) and painted or refinished to match existing finish. Cement asbestos shingles may be replaced with asphalt-based shingles and untreated wood shingles may be replaced with fire-resistant wood shingles. Replacement of broken, individual terra cotta tiles must match existing as closely as possible in color, finish, type, shape, thickness and form, dimensions, pattern and attachment method. New roof finish material shall not be applied over existing roof material (e.g. shingles, tiles). Replacement of roofing materials in large part (more than 25 percent) or in total is NOT included in this exemption.

Refer to Preservation Briefs 4 “Roofing for Historic Buildings,” 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 19 “The Repair and Replacement of Historic Wooden Shingle Roofs,” 29 “The Repair, Replacement, and Maintenance of Historic Slate Roofs,” 30 “The Preservation and Repair of Historic Clay Tile Roofs” and 39 “Holding the Line: Controlling Unwanted Moisture in Historic Buildings.”

Seismic Repair and Upgrade

22. Anchoring of masonry walls to floor and roof systems, so long as anchors are embedded and concealed from exterior view, such as Hilti-type (or equal) systems.

Refer to Preservation Briefs 5 “The Preservation of Historic Adobe Buildings” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

23. Grout injection of unreinforced masonry (URM) walls is limited to application of City of Los Angeles document #P/BC 2002-056 (formerly RGA #1-91), “Crack Repair of Unreinforced Masonry Walls with Grout Injection.”¹² Mortar shall be removed as necessary for repairs using hand tools only. No epoxy shall be used in URM applications.

Refer to Preservation Briefs 2 “Repointing Mortar Joints in Historic Masonry Buildings” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

24. Repair of parapets, chimneys and cornices shall be accomplished to exactly match existing features in all material and visual aspects. Portland cement shall NOT be used for such patching or repairs under any circumstances. Bracing and reinforcing of chimneys and fireplaces is exempted, if bracing and reinforcing are either concealed from exterior view or removable in the future.

Refer to Preservation Briefs 2 “Repointing Mortar Joints in Historic Masonry Buildings,” 4 “Roofing for Historic Buildings” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

25. Brick or masonry repointing shall include removal of deteriorated mortar using only hand tools, and new mortar shall match existing in color, texture and style of finish (striking). New mortar shall not be stronger than original and Portland cement shall NOT be used for such patching or repairs under any circumstances.

¹² City of Los Angeles Department of Building & Safety, “Crack Repair of Unreinforced Masonry Walls with Grout Injection.” document #P/BC 2002-056, formerly RGA #1-91, effective 2/11/91, revised 3/10/00
<<http://www.ladbs.org/faq/info%20bulletins/building%20code/IB-P-BC%202002-056%20Crack%20Repair%20of%20URM.pdf>>

Refer to Preservation Briefs 1 “Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings,” 2 “Repointing Mortar Joints in Historic Masonry Buildings,” 3 “Conserving Energy in Historic Buildings,” 6 “Dangers of Abrasive Cleaning to Historic Buildings” and 38 “Removing Graffiti from Historic Masonry.”

26. Stabilization of structural foundations and addition of foundation bolts, so long as work is not visible from interior finished rooms or any part of building exterior.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 35 “Understanding Old Buildings: The Process of Architectural Investigation” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

27. Temporary bracing or shoring, as part of emergency stabilization. Any such bracing or shoring shall not use fasteners or other penetrations drilled into any part of stone, brick, tile or other masonry; such penetrations are only allowable in mortar or wood. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout, mortar or wood. Portland cement shall NOT be used for such patching or repairs under any circumstances.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 35 “Understanding Old Buildings: The Process of Architectural Investigation” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

28. Installation of seismic upgrades, provided such upgrades are not visible on the exterior or on interior in publicly accessible spaces, including offices. These seismic upgrades shall be limited to: cross bracing on pier and post foundations, metal fasteners, collar ties, gussets, tie downs, strapping and anchoring of mechanical, electrical or plumbing equipment, installation of plywood diaphragms beneath first floor joists, above top floor ceiling rafters and on roofs, and addition of seismic automatic gas shut-off valves. Any such bracing or shoring shall not use fasteners or other penetrations drilled into any part of stone, brick, tile or other masonry; such penetrations are only allowable in mortar or wood. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout, mortar or wood.

Refer to Preservation Briefs 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 35 “Understanding Old Buildings: The Process of Architectural Investigation” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

Other Exterior Work

29. Repair or replacement of signs or awnings (including frame or armature) when work is done in kind to exactly match existing materials, form, method and location of attachment. Any such attachments shall not use fasteners or other penetrations drilled into any part of stone, brick, tile or other masonry; such penetrations are only allowable in mortar or wood. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout, mortar or wood.

Refer to Preservation Briefs 25 “The Preservation of Historic Signs” and 44 “The Use of Awnings on Historic Buildings: Repair, Replacement and New Design.”

Landscaping

30. Replacement in kind of landscaping plant material, retaining existing grade level.

Refer to Preservation Brief 36 “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.”

31. Repair or replacement of utilitarian landscape components, such as sprinkler piping. This does not include archaic, decorative or other potential character-defining features, such as fountains or paved walkways.

Refer to Preservation Brief 36 “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.”

32. Repair of fencing and freestanding exterior walls when work is accomplished in kind to exactly match existing materials and form.

Refer to Preservation Brief 36 “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.”

33. Installation of temporary (no more than 365 days in duration), reversible barriers such as chain link fences and polyethylene sheeting or tarps. Attachments for these barriers shall not use fasteners or other penetrations drilled into any part of stone, brick, tile or other masonry; such penetrations are only allowable in mortar or wood. Any such penetrations shall be carefully repaired immediately after modification is removed, using same strength, color, and finish of grout, mortar or wood.

Refer to Preservation Briefs 31 “Mothballing Historic Buildings” and 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.”

34. Repair of roadways, driveways and walkways when such work is accomplished in kind to exactly match existing material, finish and form.

Refer to Preservation Briefs 1 “Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings,” 2 “Repointing Mortar Joints in Historic Masonry Buildings,” 6 “Dangers of Abrasive Cleaning to Historic Buildings,” 7 “The Preservation of Historic Glazed Architectural Terra-Cotta,” 15 “Preservation of Historic Concrete: Problems and General Approaches,” 16 “The Use of Substitute Materials on Historic Building Exteriors,” 17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character,” 32 “Making Historic Properties Accessible,” 36 “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes,” 38 “Removing Graffiti from Historic Masonry” and 42 “The Maintenance, Repair and Replacement of Historic Cast Stone.”

35. Repair or replacement of running track surfaces, within existing curbs. This exception does NOT include alterations to existing curb, steps or any features or surfaces other than that of the track. New track surfaces shall be installed at the same grade in all portions of the track as existing and match in finish and form.

Refer to Preservation Briefs 15 “Preservation of Historic Concrete: Problems and General Approaches” and 16 “The Use of Substitute Materials on Historic Building Exteriors.”

HISTORICAL RESOURCES OWNED BY LAUSD

The three described surveys of properties owned by LAUSD (constructed before 1955), identified the following 123 schools as historical resources (having one or more buildings that meet the criteria for listing in the California Register):

School Name	Date(s)	Survey
2 nd Street Elementary School	1922-1978	FEMA
10 th Street Elementary School	1922-1983	Phase 1/Getty
17 th Street Elementary School ¹³	1926	FEMA
24 th Street Elementary School	1926-1971	other
49 th Street Elementary School	1923-1968	Phase 1/Getty
52 nd Street Elementary School	1922-1969	Phase 1/Getty
66 th Street Elementary School	1927-1965	Phase 1/Getty
109 th Street Elementary School	1940	other
Adams Middle School	1927-1964	Phase 1/Getty
Aldama Elementary School	1923-1927	Phase 1/Getty
Alta Loma Elementary School	1935-1972	Phase 1/Getty
Angeles Mesa Elementary School	1917-1968	other
Apperson Street Elementary School	1949-1957	Phase 2
Arlington Heights Elementary School	1937-1968	FEMA
Baldwin Hills Elementary School	1949-1973	Phase 1/Getty
Bandini Branch Adult Education Center	unknown	FEMA
Bandini Street Elementary School	1923-1977	FEMA
Barton Hill Elementary School	1923-1965	Phase 1/Getty
Bell High School	1925-1989	Phase 1/Getty
Belvedere Elementary School	1922-1962	FEMA
Berendo Middle School	1937-1992	Phase 1/Getty
Broadway Elementary School	1936-1963	Phase 1/Getty
Bryson Avenue Elementary School	1925-1977	Phase 1/Getty
Buchanan Street Elementary School	1937-1996	FEMA
Burroughs Middle School	1923-1978	Phase 1/Getty
Canoga Park Elementary School	1935-1969	FEMA
Canoga Park High School	1930-1977	Phase 1/Getty
Carpenter Avenue School	1938-1968	FEMA
Carson Street School	1927-1966	Phase 1/Getty
Cienega Elementary School	1924-1969	other
Corona Avenue Elementary School	1935-1968	Phase 1/Getty
Dorris Place Elementary School	1928-1970	Phase 1/Getty
Dorsey High School	1937-1961	Phase 1/Getty
Eagle Rock Elementary School	1917-1919	Phase 1/Getty
El Sereno Middle School	1937-1968	Phase 1/Getty

¹³ Now used as Senior High School Division Office.

School Name	Date(s)	Survey
Emerson Middle School	1937-1957	Phase 2
Eshelman Avenue Elementary School	1925-1969	FEMA
Euclid Avenue Elementary School	1923-1970	Phase 1/Getty
Fairfax High School	1942-1968	Phase 1/Getty
Fremont High School	1924-1976	Phase 1/Getty
Fries Avenue Elementary School	1924-1977	Phase 1/Getty
Garvanza Elementary School	1922-1966	FEMA
Glassell Park Elementary School	1924-1952	Phase 1/Getty
Gompers Middle School	1937-1962	FEMA
Graham Elementary School	1925-1975	Phase 1/Getty
Grant Elementary School	1922-1990	FEMA
Gulf Avenue Elementary School	1926-1969	FEMA
Hamasaki Middle School	1927-1962	Phase 1/Getty
Hamilton High School	1931-1949	FEMA
Hancock Park Elementary School	1937-1958	FEMA
Hobart Boulevard Elementary School	1937-1968	Phase 1/Getty
Hollenbeck Middle School	1923-1976	FEMA
Hollywood High School	1910-1977	other; Phase 1/Getty
Humphreys Avenue Elementary School	1923-1969	Phase 1/Getty
Huntington Park High School	1923-1991	Phase 1/Getty
Irving Middle School	1937-1990	Phase 1/Getty
Jefferson High School	1936-1970	other; Phase 1/Getty
Jordan High School	1927-1970	Phase 1/Getty
Kester Avenue Elementary School	1951-1957	Phase 1/Getty
King Elementary School	1936-1972	Phase 2
Los Angeles Center for Enriched Studies	1937-1961	FEMA
Lankershim Elementary School	1912-1982	Phase 1/Getty
Le Conte Middle School	1922-1977	FEMA
Leland Street Elementary School	1924-1977	Phase 1/Getty
Lincoln High School	1937-1980	FEMA
Lokrantz Special Education Center	1960-1975	Phase 1/Getty
Lomita Fundamental Magnet	1937-1968	Phase 1/Getty
Los Feliz Elementary School	1937	FEMA
Mann Middle School	1926-1977	Phase 1/Getty
Manual Arts High School	1935-1989	other; Phase 1/Getty
Mar Vista Elementary School	1949-1957	Phase 2
Marshall High School	1931-1992	FEMA
Miramonte Elementary School	1936-1969	FEMA
Morningside Elementary School	1915-1995	FEMA
Muir Middle School	1922-1971	other
Nightingale Middle School	1937-1969	Phase 1/Getty
North Hollywood High School	1927	FEMA
Norwood Street Elementary School	1939-1969	Phase 2
Old Canyon School	1894	Phase 1/Getty
Old Farmdale School	1894	Phase 1/Getty
Old Vernon School (Heritage School)	1876	Phase 1/Getty

School Name	Date(s)	Survey
Pacific Palisades Elementary School	1931-1960	other; Phase 1/Getty
Pacoima Elementary School	1916-1969	Phase 1/Getty
Palms Middle School	1949-1960	Phase 2
Perez Special Education Center	1926-1981	Phase 1/Getty
Point Fermin Elementary School	1921-1925	Phase 1/Getty
Reed Middle School	1939-1958	Phase 1/Getty
Reseda Elementary School	1936-1955	FEMA
Ritter Elementary School	1932-1968	FEMA
Rowan Avenue Elementary School	1916-1963	Phase 1/Getty
Salvin Special Education	1937-1974	Phase 2
San Fernando Middle School	1916-1975	FEMA
San Gabriel Avenue Elementary School	1924-1937	Phase 1/Getty
San Pedro Adult School	1926	FEMA
San Pedro High School	1936-1971	FEMA
San Pedro Street School	1927-1991	Phase 1/Getty
Santa Monica Elementary School	1937-1993	FEMA
Solano Avenue Elementary School	1924	Phase 1/Getty
Soto Street Elementary School	1937	FEMA
South Gate High School	1930-1988	Phase 1/Getty
South Gate Middle School	1941-1966	FEMA
South Park Elementary School	1936-1966	Phase 1/Getty
State Street Children's Center	1931	Phase 1/Getty
State Street Elementary School	1924-1937	Phase 1/Getty
Sterry Children's Center	1914	Phase 1/Getty
Sun Valley Middle School	1944-1954	Phase 2
University High School	1924-1978	FEMA
Utah Street School	1937-1970	Phase 1/Getty
Van Ness Elementary School	1923	FEMA
Van Nuys High School	1933-1976	Phase 1/Getty
Van Nuys Middle School	1948-1958	Phase 2
Venice High School	1935-1969	Phase 1/Getty
Verdugo Hills High School	1937-1970	Phase 1/Getty
Vernon City Elementary School	1929-1942	Phase 1/Getty
Victoria Avenue Elementary School	1929-1976	Phase 2
Vine Street Elementary School	1922-1995	FEMA
Virgil Middle School	1924-1978	Phase 1/Getty
Virginia Road Elementary School	1924-1977	Phase 1/Getty
Warner Avenue Elementary School	1949-1977	Phase 2
West Vernon Avenue Elementary School	1937-1976	Phase 1/Getty
Wilton Place Elementary School	1922-1996	FEMA
Wright Middle School	1948-1951	Phase 1/Getty
Yorkdale Elementary School	1923-1966	Phase 1/Getty

POST-WORLD WAR II ERA PROPERTIES RECOMMENDED FOR RE-EVALUATION

As part of the Phase 2 evaluation, the following properties were recommended for future re-evaluation for historic significance:

School Name	Date(s)
153 rd Street Elementary School	1957-1958
156 th Street Elementary School	1953
186 th Street Elementary School	1955-1962
Amestoy Elementary School	1949-1957
Avalon Gardens Elementary School	1952
Castle Heights Elementary School	1951-1961
Century Park Elementary School	1948-1959
Chandler Elementary School	1949-1956
Colfax Avenue Elementary School	1950-1956
Cowan Avenue Elementary School	1953-1958
Dixie Canyon Avenue Elementary School	1949-1961
Encino Elementary School	1947-1961
Fernangeles Elementary School	1948-1954
Fullbright Avenue Elementary School	1954
Haskell Elementary School	1953-1965
Hawaiian Avenue Elementary School	1948-1966
Pacoima Middle School	1955
Sherman Oaks Center for Enriched Studies	1950-1956
Stagg Street Elementary School	1954-1958
Vintage Street Fundamental Magnet School	1953
Webster Middle School	1954-1958
Wilmington Middle School	1951-1962

PRESERVATION BRIEFS

Preservation Briefs listed below in numerical order provide additional, detailed information that can be used as a guide for preserving, rehabilitating and restoring specific features, such as windows, masonry walls and roofs of historic buildings. Prepared pursuant to the National Historic Preservation Act of 1966, as amended, the Secretary of the Interior developed and made available "information concerning historic properties. Technical Preservation Services, Heritage Preservation Services Division, National Park Service prepare[d] standards, guidelines, and other educational materials on responsible historic preservation treatments to a broad public."¹⁴ Since 1975, these have been prepared by National Park Service staff as part of Technical Preservation Services, and are updated and amended as necessary. Written and illustrated guidance is provided in each brief on how to deal with these features in conformance with the Secretary's Standards. Rather than to exclude certain briefs that may not apply to LAUSD-owned properties, all are cited regardless of the applicability of focus.

Individual Preservation Briefs are available for a small fee from the US Government Printing Office (GPO, telephone number 866-512-1800) using the stock number from the GPO Online Bookstore (<http://bookstore.gpo.gov>). A complete set of single-sided, faxable prints out of each Preservation Brief shall be maintained at LAUSD Facilities department for dissemination and use by personnel without web access. Each Preservation Brief is listed below (by number), followed by the appropriate web link.

At the main Preservation Brief website (<http://www.cr.nps.gov/hps/tps/briefs/presbhom.htm>), the content of these briefs can be searched by item (e.g. windows - historic wooden and - historic steel).

Preservation Briefs

- 1 "Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings"
<http://www.cr.nps.gov/hps/tps/briefs/brief01.htm>
- 2 "Repointing Mortar Joints in Historic Masonry Buildings"
<http://www.cr.nps.gov/hps/tps/briefs/brief02.htm>
- 3 "Conserving Energy in Historic Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief03.htm>
- 4 "Roofing for Historic Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief04.htm>
- 5 "The Preservation of Historic Adobe Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief05.htm>
- 6 "Dangers of Abrasive Cleaning to Historic Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief06.htm>
- 7 "The Preservation of Historic Glazed Architectural Terra-Cotta"
<http://www.cr.nps.gov/hps/tps/briefs/brief07.htm>
- 8 "Aluminum and Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief08.htm>
- 9 "The Repair of Historic Wooden Windows" <http://www.cr.nps.gov/hps/tps/briefs/brief09.htm>
- 10 "Exterior Paint Problems on Historic Woodwork" <http://www.cr.nps.gov/hps/tps/briefs/brief10.htm>
- 11 "Rehabilitating Historic Storefronts" <http://www.cr.nps.gov/hps/tps/briefs/brief11.htm>
- 12 "The Preservation of Historic Pigmented Structural Glass (Vitrolite and Carrara Glass)"
<http://www.cr.nps.gov/hps/tps/briefs/brief12.htm>

¹⁴ National Park Service "Technical Preservation Services for Historic Buildings"
<<http://www.cr.nps.gov/hps/tps/briefs/credits.htm>>

- 13 "The Repair and Thermal Upgrading of Historic Steel Windows"
<http://www.cr.nps.gov/hps/tps/briefs/brief13.htm>
- 14 "New Exterior Additions to Historic Buildings: Preservation Concerns"
<http://www.cr.nps.gov/hps/tps/briefs/brief14.htm>
- 15 "Preservation of Historic Concrete: Problems and General Approaches"
<http://www.cr.nps.gov/hps/tps/briefs/brief15.htm>
- 16 "The Use of Substitute Materials on Historic Building Exteriors"
<http://www.cr.nps.gov/hps/tps/briefs/brief16.htm>
- 17 "Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character" <http://www.cr.nps.gov/hps/tps/briefs/brief17.htm>
- 18 "Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements"
<http://www.cr.nps.gov/hps/tps/briefs/brief18.htm>
- 19 "The Repair and Replacement of Historic Wooden Shingle Roofs"
<http://www.cr.nps.gov/hps/tps/briefs/brief19.htm>
- 20 "The Preservation of Historic Barns" <http://www.cr.nps.gov/hps/tps/briefs/brief20.htm>
- 21 "Repairing Historic Flat Plaster - Walls and Ceilings" <http://www.cr.nps.gov/hps/tps/briefs/brief21.htm>
- 22 "The Preservation and Repair of Historic Stucco" <http://www.cr.nps.gov/hps/tps/briefs/brief22.htm>
- 23 "Preserving Historic Ornamental Plaster" <http://www.cr.nps.gov/hps/tps/briefs/brief23.htm>
- 24 "Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches"
<http://www.cr.nps.gov/hps/tps/briefs/brief24.htm>
- 25 "The Preservation of Historic Signs" <http://www.cr.nps.gov/hps/tps/briefs/brief25.htm>
- 26 "The Preservation and Repair of Historic Log Buildings"
<http://www.cr.nps.gov/hps/tps/briefs/brief26.htm>
- 27 "The Maintenance and Repair of Architectural Cast Iron"
<http://www.cr.nps.gov/hps/tps/briefs/brief27.htm>
- 28 "Painting Historic Interiors" <http://www.cr.nps.gov/hps/tps/briefs/brief28.htm>
- 29 "The Repair, Replacement, and Maintenance of Historic Slate Roofs"
<http://www.cr.nps.gov/hps/tps/briefs/brief29.htm>
- 30 "The Preservation and Repair of Historic Clay Tile Roofs"
<http://www.cr.nps.gov/hps/tps/briefs/brief30.htm>
- 31 "Mothballing Historic Buildings" <http://www.cr.nps.gov/hps/tps/briefs/brief31.htm>
- 32 "Making Historic Properties Accessible" <http://www.cr.nps.gov/hps/tps/briefs/brief32.htm>
- 33 "The Preservation and Repair of Historic Stained and Leaded Glass"
<http://www.cr.nps.gov/hps/tps/briefs/brief33.htm>
- 34 "Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament"
<http://www.cr.nps.gov/hps/tps/briefs/brief34.htm>
- 35 "Understanding Old Buildings: The Process of Architectural Investigation"
<http://www.cr.nps.gov/hps/tps/briefs/brief35.htm>

- 36 “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes”
<http://www.cr.nps.gov/hps/tps/briefs/brief36.htm>
- 37 “Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing”
<http://www.cr.nps.gov/hps/tps/briefs/brief37.htm>
- 38 “Removing Graffiti from Historic Masonry” <http://www.cr.nps.gov/hps/tps/briefs/brief38.htm>
- 39 “Holding the Line: Controlling Unwanted Moisture in Historic Buildings”
<http://www.cr.nps.gov/hps/tps/briefs/brief39.htm>
- 40 “Preserving Historic Ceramic Tile Floors” <http://www.cr.nps.gov/hps/tps/briefs/brief40.htm>
- 41 “The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront”
<http://www.cr.nps.gov/hps/tps/briefs/brief41.htm>
- 42 “The Maintenance, Repair and Replacement of Historic Cast Stone”
<http://www.cr.nps.gov/hps/tps/briefs/brief42.htm>
- 43 “The Preparation and Use of Historic Structure Reports”
<http://www.cr.nps.gov/hps/tps/briefs/brief43.htm>
- 44 “The Use of Awnings on Historic Buildings: Repair, Replacement and New Design”
<http://www.cr.nps.gov/hps/tps/briefs/brief44.htm>

CEQA Flowchart for Historical Resources

Los Angeles Unified School District

