

Sequoia Elementary School

EXISTING SITE INFORMATION

Items		Description
Project Name		Sequoia Elementary School
Property Type		Academic
Full Address		277 Boyd Road Pleasant Hill, CA 94523
Year Built		1953
Gross Building Area (GSF)		48,400
Current Replacement Value (CRV)		\$36,300,000
CRV/GSF (\$/Sq Ft)		\$750
Number of Classrooms		X
Number of Portables		0
Student population (2018/2019)		X
Site Acreage		6.1
Building Name	Gross Square Footage	Built/Renovated
Building - Office/Classroom 1-3	7,800	1953
Building - Classroom 4-7	6,200	1953
Building - Classroom 8-10	4,100	1953
Building - Classroom 11-14	5,100	1953
Building - Classroom 15-17	4,000	1953
Building - Classroom 18-21	5,700	1954
Building - Classroom 22-24	2,800	2002
Building - Library Room 27	1,600	2002
Building - Computer Lab Room 28	1,100	2002
Building - Classroom 25-26	1,900	2002
Building - Multi Use Building	8,100	1953
Total SF	48,400	

All 48,400 square feet of the property are occupied by Mount Diablo Unified School District. The spaces are mostly a combination of offices, classrooms and multi-use with supporting restrooms and mechanical and other utility spaces.

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OVERVIEW

Site Executive Summary

The building covers approximately a quarter of the entire site. Landscaping consists of trees, shrubs, and lawn areas. Landscaped areas the main office are irrigated by an in-ground sprinkler system near. Fencing is located at the perimeter of the site with lockable gates at several locations. Parking is provided for 44 vehicles in an asphalt paved lot. Service vehicle access is provided at the southwest and southeast corners of the site along with a small alley to adjoining Sequoia Middle School. The parking lots and sidewalks have been periodically repaved and sectionally replaced as needed over the years. The pedestrian pavement throughout the property is constructed of cast-in-place concrete and asphalt. The playgrounds, sport courts, parking lot and walkways are generally in good condition. Building perimeter lighting is provided by wall-mounted sodium vapor HID fixtures and metal halide flood lights. Pedestrian areas and walkways along the buildings are lit by recessed LED bulb fixtures.

Property Executive Summary

Sequoia Elementary School is a fully-occupied academic campus. It is a single-story structure that has multiple classroom wings along with some standalone modular classrooms that were installed in the early 2000s. There were no major issues observed during the on-site visit or noted in conversation with the POC. During the on-site visit, it was noted that the roof on the original building and M-U building was recently replaced. There were multiple areas of construction equipment still on the roof, loose pipes and conduit, loose and unprotected wiring and a pile of sheet metal and fittings that needed to be reinstalled by the roofing contractor. It was also noted that there were also multiple instances of exterior lights that were on during the daytime. The kindergarten spaces have 9"x9" floor tiles that could contain asbestos.

Architectural Structural Executive Summary

The foundation system was not able to be directly observed. However, based on similar structures and drawings of the original school, it consists of concrete piers supporting reinforced concrete slab-on-grade. The newer classrooms are prefabricated and placed on-grade adjacent to the original classrooms. The original building structural systems consist of masonry bearing walls with wood truss roofs. The roof is slightly pitched and was recently replaced with epoxy-coated modified bitumen. The exterior walls are painted concrete masonry. Windows are single-glazed, metal-framed units in punched openings. The building interiors generally include painted concrete with some areas of tack board and acoustical panels over the concrete. The floor finishes consist primarily of vinyl composition tile (VCT) with small areas of carpet. The interior ceilings are finished with acoustic ceiling tile in the original building and painted gypsum board in the newer classrooms.

Mechanical/Electrical/Plumbing Executive Summary

Domestic hot water is provided to the M-U building kitchen and restrooms by a commercial grade natural gas water heater located in the boiler room. Heating and cooling are provided by rooftop package units and fan coil units with remote heat pumps and condensing units. Supplemental cooling is provided to the administration area by ductless split systems. A single boiler provides heating for the M-U Building only. Fire protection systems include a fire alarm system, smoke detectors, alarms with strobes, pull stations, extinguishers and appropriate egress signage. General interior lighting is

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provided by T-8 fluorescent fixtures. Electrical service is provided by a single 1,600-amp panel served from a pad-mounted transformer.

SCHOOL SITE ENGAGEMENT

Principal Priorities:

1. Improved wireless access - it drops constantly
2. Improved fields and playground visibility
3. Rethinking classroom space and furniture

ASSESSMENT OF SITE

Historical Summary

The majority of Sequoia Elementary School was built in 1953 with a classroom addition in 1954. The office building also shares three classroom spaces. The remaining rows of buildings built to the north of the office are all classroom wings built in similar style. The Multi-Use (M-U) Building lies to the east of the classroom buildings and includes the cafeteria, kitchen, and stage. The M-U Building is shared with the adjacent Sequoia Middle School. During the 2000s, stand-alone prefabricated buildings were moved onto the site to accommodate growing enrollments. One of these stand-alone buildings is used as a computer lab and another is the library.

Site

The site parking lot is in fair condition with some evidence of past cutting and patching. There are no deficiencies to report, and parking spaces are well marked. Sidewalk concrete and asphalt along with playground asphalt are in fair condition with no major deficiencies. There are a couple cases of asphalt being installed too closely to trees, creating tripping hazards and crumbling asphalt. Remaining trees, shrubs and grass are all well maintained with no deficiencies. Site lighting is limited to the building exteriors with no dedicated yard or other pole-mounted lighting. All pedestrian paths are well lit.

Architectural

All of the roofs on the original office, classrooms, and M-U Building recently replaced. It should be noted that a significant amount of materials were left on all roofs including construction materials, equipment, miscellaneous sheet metal, broken conduits, detached pipes and conduits, an unlevel rooftop air conditioning unit, and unprotected electrical wiring. This same project has also created some interior ceiling damage in the administration office and break room areas. A couple of loose window screens are in danger of falling off inside the kitchen area above the sink. According to on-site staff, all exterior walls were painted in 2017. The floors in the original buildings have been upgraded to vinyl tile over time and have been well maintained. The exception to this is the flooring in the kindergarten wing. This 9"x9" tile is believed to be original and could contain asbestos. Interior finishes include painted concrete that has been updated periodically over the years. Other wall finishes include acoustic tiles or tack board in some spaces as well as painted gypsum board in the newer prefabricated buildings. Interior finishes have been

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repainted periodically as-needed over the years. Lifecycle interior finish, exterior finish, and roof membrane replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing & Fire (MEPF)

In the classroom buildings, the boiler has been replaced with packaged rooftop units, forced air units in classroom spaces in conjunction with outdoor heat pumps and some split systems for complimentary cooling. According to district staff, the major mechanical upgrade to the classroom buildings was completed in 2012. The exceptions to this would be the M-U Building boiler (1996) and some small packaged units above the M-U Building kitchen which are dated 2002. The packaged rooftop units above the M-U Building were not accessible but are believed to be around the same age as the equipment mentioned above. The MEPF infrastructure itself is generally in good working condition with no major expenditures anticipated in the short term.

Recommended Additional Studies

Additional investigation is currently taking place to address specific AB-300 requirements and potential independent structural system review.

Facility Condition Index

In this report we have calculated the Facility Condition Index (FCI) which is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCI is the ratio of accumulated Total Cost (TC) (Deferred Maintenance, Capital Renewal and Plant Adaptation) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing the TC by the CRV. The range is from zero for a newly constructed asset, to one for a constructed asset with a TC value equal to its CRV. Acceptable ranges vary by "Asset Type", but as a general guideline the FCI scoring system is as follows:

Condition	Definition	Percentage Value
GOOD	In a new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
FAIR	Subject to wear and soiling but is still in a serviceable and functioning condition.	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary.	Greater than 60%

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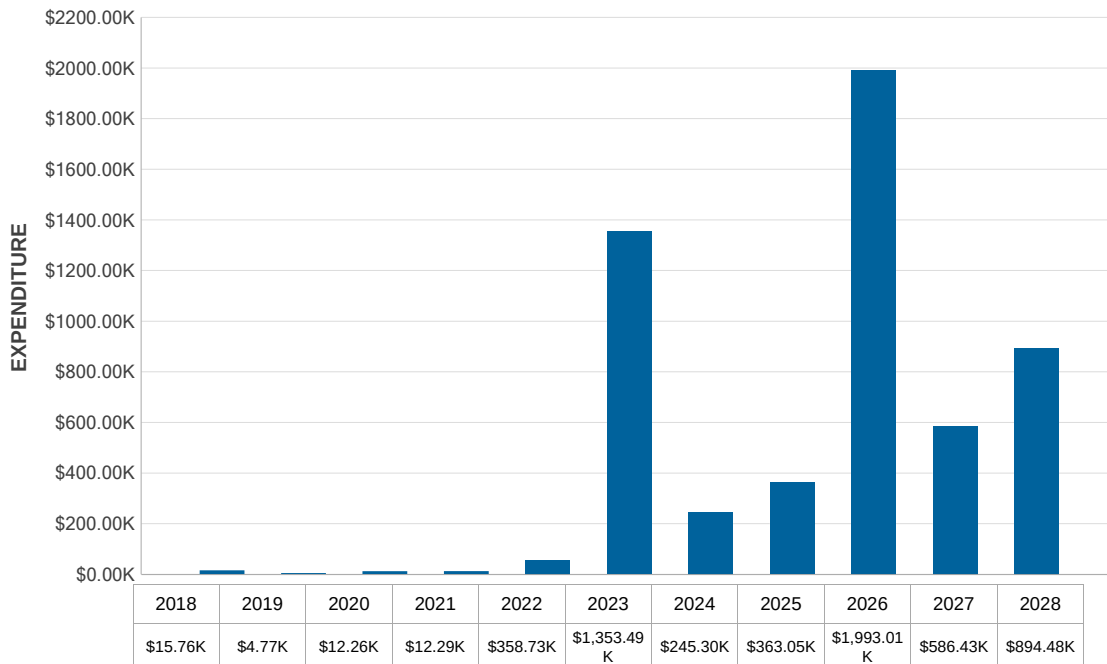
Property Condition

This report represents summary-level findings for the Property Condition Assessment. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall Long Term Capital Needs Plan that can be the basis for a facility wide capital improvement funding strategy. Key findings from the Assessment include:

Key Findings	Metric
Facility Condition Index (FCI)	0.04 %
Current Replacement Value (CRV)	\$36,300,000
Immediate Capital Needs (Current Year or Year 0)	\$15,756
Short Term Capital Needs (Year 1 to 5)	\$1,741,531
Long Term Capital Needs (Year 6 to 10)	\$4,082,273
TOTAL Capital Needs (Year 0 to Year 10)	\$5,839,560
Average Capital Needs Per Year	\$583,956

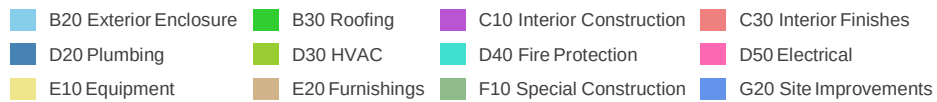
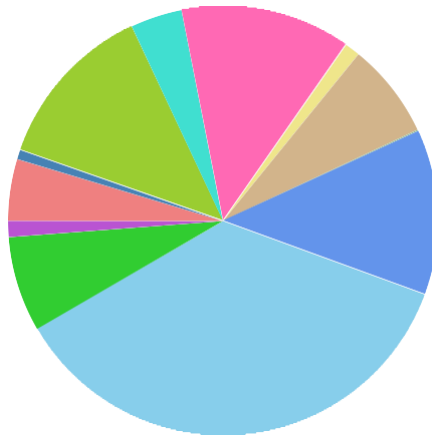
The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of yearly anticipated expenditures over the study period for the Sequoia Elementary School building. In addition, we have scheduled key findings highlighting key items of greater than \$5,000 and their anticipated failure year. Further details of these expenditures are included within each respective report section and within the expenditure forecast, in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of approximately \$5,839,560.

Expenditure Forecast Over Study Period



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Distribution of Future (Year 1-Year 10) Needs by Building System



Building System	Estimated Cost	Percentage of Total Cost
B20 Exterior Enclosure	\$1,981,620	34.03 %
B30 Roofing	\$29,733	0.51 %
C10 Interior Construction	\$107,790	1.85 %
C30 Interior Finishes	\$322,656	5.54 %
D20 Plumbing	\$43,433	0.75 %
D30 HVAC	\$1,015,788	17.44 %
D40 Fire Protection	\$302,500	5.19 %
D50 Electrical	\$817,740	14.04 %
E10 Equipment	\$83,026	1.43 %
E20 Furnishings	\$597,125	10.25 %
F10 Special Construction	\$5,000	0.09 %
G20 Site Improvements	\$517,393	8.88 %
Total	\$5,823,804	100 %

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Building Type 1 Information



Building Type 1 Information		
Building Locations	Office, Classrooms	
Constructed/ Renovated	1953/2012 mechanical	
Building Size	32,900 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Concrete masonry unit structure on concrete slab Masonry bearing walls and wood-framed roofs	Good
Façade	Painted CMU with operable steel-framed windows	Fair
Roof	Primary: Flat construction with epoxy over modified bituminous finish	Excellent
Interiors	Walls: Painted CMU Floors: VCT, carpet and vinyl Ceilings: ACT or painted plaster	Fair
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent No hot water	Fair
HVAC	Individual packaged rooftop units, furnaces with remote heat pumps Supplemental components: ductless split-systems	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Main switchboard panel with copper wiring fed from exterior cabinet with copper wiring Interior Lighting: T-8 Emergency: none	Good

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Building Type 1 Information		
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	Fair
Key Issues & Findings	Building lacks fire suppression, worn or missing door sweeps/weather-stripping	

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Building Type 2 Information



Building Type 2 Information		
Building Locations	Library, Computer Lab, Classroom Buildings 22-26	
Constructed/ Renovated	2002	
Total Area	7,400 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Prefabricated wood frame structure on concrete slab, moved to site	Good
Façade	Stucco with operable aluminum-framed windows	Fair
Roof	Primary: Gable construction with metal finish Secondary: Flat construction with modified bituminous finish	Fair
Interiors	Walls: Painted gypsum board Floors: Carpet, VCT Ceilings: Painted gypsum board	Fair
Elevators	None	--
Plumbing	Copper supply, PVC waste and vent No hot water	Good
HVAC	Heat pump	Good
Fire Suppression	Fire extinguisher	Good
Electrical	Source & Distribution: Sub panel with copper wiring fed from classroom building electrical room with copper wiring Interior Lighting: T-8 Emergency: none	Good
Fire Alarm	Smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Good
Equipment/Special	None	--
Key Issues & Findings	Building lacks fire suppression	

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Building Type 3 Information



Building Type 3 Information		
Building Locations	Multi-Use Building, Kitchen, Cafeteria	
Constructed/ Renovated	1953/2012 Mechanical	
Total Area	8,100 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Masonry bearing walls and wood-framed roofs	Good
Façade	Painted CMU with operable steel windows	Fair
Roof	Flat construction with epoxy coated modified bituminous finish	Excellent
Interiors	Walls: Painted CMU, ACT, ceramic tile Floors: VCT, ceramic tile, maple floor Ceilings: Painted plaster, ACT	Fair
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent Gas domestic water heater	Fair
HVAC	Individual packaged rooftop units Hot water boiler Supplemental components: Small supplemental rooftop units for kitchen	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Main switchboard panel with copper wiring fed from exterior electrical cabinet with copper wiring Interior Lighting: T-8, CFL Emergency: none	Fair

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Building Type 3 Information		
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Good
Equipment/Special	Commercial kitchen equipment	Fair
Key Issues & Findings	Loose window screens in kitchen, materials and equipment left on roof from roofing contractor, broken conduits and fittings on roof from roofing project, unlevel rooftop unit above kitchen, building lacks fire suppression including kitchen hood	

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Site Summary Information



Site Information		
Lot Size	6.1 acres (estimated)	
Parking Spaces	44 total spaces all in open lots 2 accessible (included in total above), 1 van-accessible	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Pavement/Flatwork	Asphalt lots with areas of concrete and concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Property entrance signage, chain link fencing, chain link gates, steel gates Playgrounds and sports courts, rubber playsurface Park benches, picnic tables, trash receptacles	Fair
Landscaping & Topography	Moderate landscaping features Irrigation present Low to moderate site slopes throughout	Good
Draining Systems and Erosion Control	Surface flow, pits	Good
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Building-mounted: HPS, metal halide Pedestrian walkways under overhangs lit with recessed LED bulbs	Fair
Ancillary Structures	Steel-framed PV array	Good
Key Issues & Findings	Trip hazards near some trees that have grown near asphalt, small area of missing landscaping brick near main entrance	