

Strandwood Elementary School

Items	Description	
Project Name	Strandwood Elementary School	
Property Type	Academic	
Full Address	416 Gladys Drive Pleasant Hill, CA 94523	
Year Built	1955	
Gross Building Area (GSF)	40,100	
Current Replacement Value (CRV)	\$30,075,000	
CRV/GSF (\$/Sq Ft)	\$750	
Number of Classrooms	X	
Number of Portables	0	
Student population (2018/2019)	620	
Site Acreage	10.0	
Building Name	Gross Square Footage	Built/Renovated
Building 1 - A Wing	8,400	1955
Building 2 - B Wing	9,100	1955
Building 3 - C Wing	8,700	1955
Building 4 - D Wing	3,500	1955
Building 5 - E Wing	1,800	2004
Building 6 - P Wing	3,500	2014
Building 7 - M-U Building	4,400	1955
Building 8 - Shed 1	600	~2015
Building 9 - Shed 2	100	~2015

All 40,100 square feet of the property are occupied by Mount Diablo Unified School District. The spaces are mostly a combination of offices, classrooms and multi-purpose room with supporting restrooms, mechanical and other utility spaces.

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OVERVIEW

Property Executive Summary

Strandwood Elementary School is a fully-occupied academic campus built in 1955. It is a single-story structure that has multiple classroom wings and classroom buildings built in 2004 and 2014. There were several instances of warped wooden lap siding on all original buildings. Some hardware has pulled out of the siding and some areas are not currently protected with paint. The roof on the A Wing was replaced in 2015 with EPDM. This roof is in excellent condition. The remaining original buildings—B, C, and D Wings—have flat roofs finished with modified bitumen. Remaining classroom additions have metal roofs. There are some isolated areas of peeling paint on the metal fascia of the M-U Building.

Site Executive Summary

The building and adjacent finished surfaces cover approximately half of the site. Landscaping consists of trees, shrubs, a student garden, and lawn areas. Some landscaped areas are irrigated by an in-ground sprinkler system near the main office. Fencing is located at the perimeter of the site and around the buildings with lockable gates at multiple locations around the classroom buildings. Parking is provided in for 57 vehicles in two asphalt paved lots. There are three total ADA accessible parking spaces with two of these spaces designated as van accessible. Service vehicle access is provided at the north side of the property through a vehicle gate next to the M-U Building. The pedestrian pavement throughout the property is constructed of cast-in-place concrete, asphalt, and a small area of paver bricks. 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 and CFL fixtures.

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 classroom additions are slab-on-grade. The structural systems consist of wood framing with wood truss roofs. The M-U Building has a steel frame superstructure. The roofs of the original buildings are slightly pitched and finished with modified bitumen, except the A Wing, which is finished with EPDM. The additions have gabled roofs finished with metal. The exterior walls are painted stucco and painted wooden lap board. Windows are single-glazed, metal-framed units in punched openings. The original buildings have steel-framed windows, and the newer additions have aluminum-framed windows. The building interiors generally include tack board with areas of painted wood. In the additions, areas not finished with tack board are finished with painted gypsum board. The floor finishes consist primarily of vinyl composition tile (VCT) and carpet. There are several spaces throughout the original buildings that have 9"x9" floor tile, which may contain asbestos. The interior ceilings are finished primarily with adhered acoustic ceiling tiles with small areas of finished gypsum board or plaster. There are many stained, missing, and water damaged adhered tiles

Mechanical/Electrical/Plumbing Executive Summary

Domestic hot water is provided to the M-U Building kitchen and restrooms by a commercial-grade, gas-fired water heater located in a small mechanical room. The A-Wing mechanical room has a second gas-fired water heater. Heating and cooling is provided by fan coil units with remote heat pumps. The additions use gas-fired furnaces with remote condensing units. Heating and cooling is provided to the office building by a multi-zone ductless heat pump system. Supplemental cooling for the IT room is provided by ductless split systems. A natural gas-fired boiler in the A-Wing mechanical room provides heating to cabinet unit heaters in 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.

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The school does not have fire sprinklers. The kitchen hood in the M-U Building kitchen does not have a fire suppression system. General interior lighting is provided by T-8 fluorescent fixtures. Electrical service is provided by a single 1,600-amp panel served from a pad-mounted transformer. The school incorporates net electric metering as a component of the solar carports in the parking lots.

SCHOOL SITE ENGAGEMENT

Principal Priorities:

1. Another set of staff bathrooms
2. Patch our track
3. School-wide paint job

ASSESSMENT OF SITE

Historical Summary

Strandwood Elementary School was built in 1955. The Multi-Use (M-U) Building lies to the east of the classroom buildings. The M-U Building includes the cafeteria, kitchen, and stage. In 2004 and 2014, additional classroom buildings were built on-site to accommodate growing enrollments. These units were added to the east and north side.

Site

The parking lot is in good condition with minimal deficiencies. Parking spaces are well marked. Sidewalk concrete and asphalt are in fair condition with no major deficiencies. Trees, shrubs and grass are all well maintained. Site lighting is mostly limited to the building exteriors. All pedestrian paths are lit by wall-mounted lighting fixtures. *Originally constructed in 1955, Maintenance indicates deteriorating site utility infrastructure in need of replacement.*

Architectural

The A-Wing had an EPDM roof installed in 2015. Roofs on the remainder of the original buildings consist of modified bitumen. E and P Wings have standing seam metal roofs. Some floors in the original buildings have been upgraded to vinyl tile over time and have been well maintained. There is some 9"x9" tile in classroom and kitchen spaces. This type of tile may contain asbestos. The newer classrooms have a combination of vinyl tile and carpet, both of which are in fair condition. Interior wall finishes include painted wood, tack board, and plaster that has been repainted periodically over the years. Other wall finishes include painted gypsum board. Interior finishes have been repainted periodically as-needed over the years. The original ceiling tile in A, B, C and D-Wings is in poor condition with many areas of previous water damage and missing tiles. Skylights in classroom spaces have been roofed over.

Mechanical, Electrical, Plumbing & Fire (MEPF)

A major mechanical upgrade to the original classroom buildings was completed around 2015. The original classroom buildings are heated and cooled by split heat pumps. The additions use gas-fired furnaces and remote condensing units. The M-U Building has a natural gas-fired boiler that supplies hot water to four cabinet unit heaters. The boiler is over 30 years old. The MEPF infrastructure 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 for the MU Building and Wing A.

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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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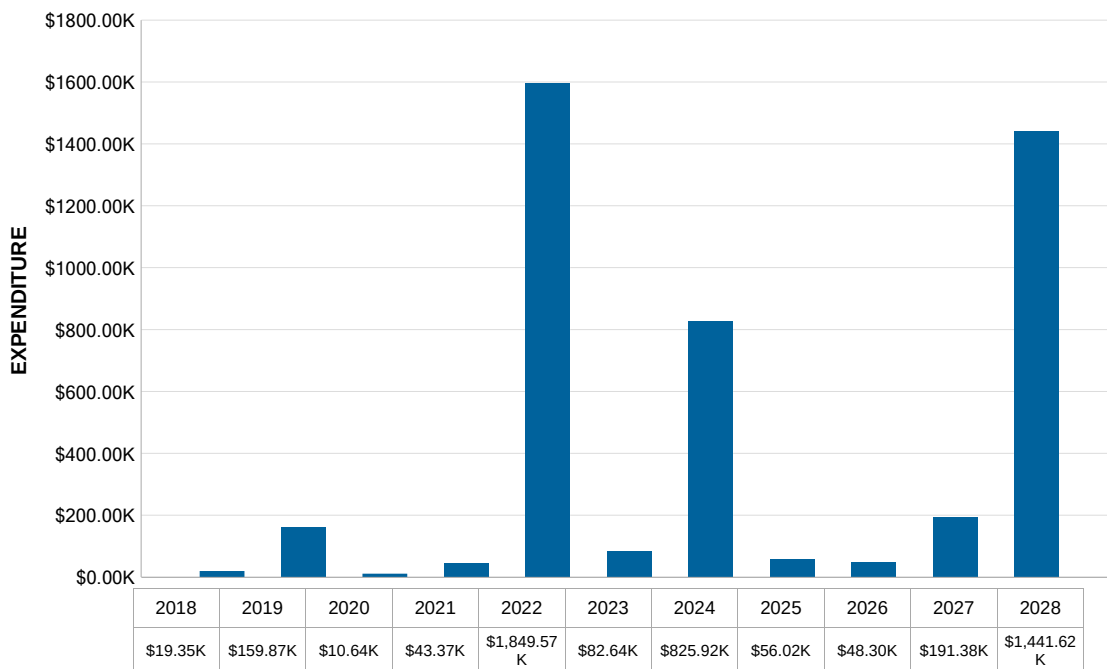
Summary of Findings

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)	0.06 %
Current Replacement Value (CRV)	\$30,075,000
Immediate Capital Needs (Current Year or Year 0)	\$19,345
Short Term Capital Needs (Year 1 to 5)	\$2,146,095
Long Term Capital Needs (Year 6 to 10)	\$2,563,241
TOTAL Capital Needs (Year 0 to Year 10)	\$4,728,681
Average Capital Needs Per Year	\$472,868

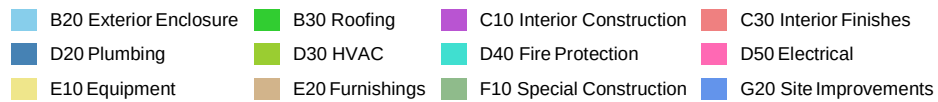
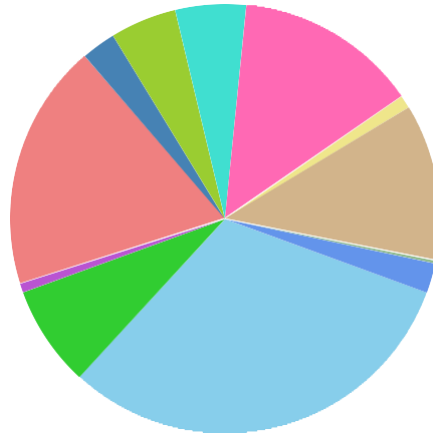
The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of yearly anticipated expenditures over the study period for the Strandwood Elementary School building. In addition, we have scheduled key findings highlighting 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 \$4,728,681.

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	\$1,473,606	31.29 %
B30 Roofing	\$358,558	7.61 %
C10 Interior Construction	\$32,250	0.68 %
C30 Interior Finishes	\$873,337	18.54 %
D20 Plumbing	\$121,630	2.58 %
D30 HVAC	\$235,211	4.99 %
D40 Fire Protection	\$250,625	5.32 %
D50 Electrical	\$647,339	13.75 %
E10 Equipment	\$45,532	0.97 %
E20 Furnishings	\$555,800	11.80 %
F10 Special Construction	\$10,000	0.21 %
G20 Site Improvements	\$105,448	2.24 %
Total	\$4,709,336	100 %

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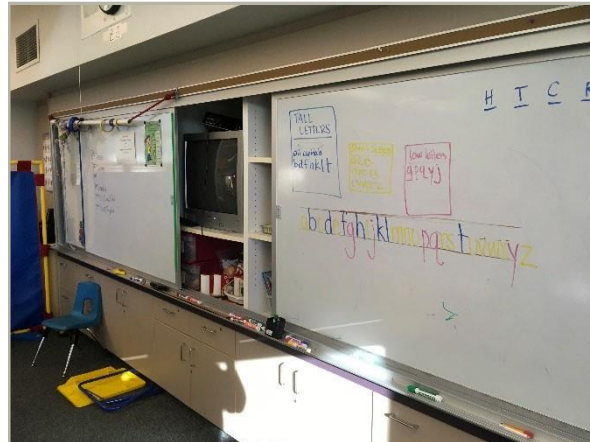
Building Type 1 Information



Building Type 1 Information		
Building Locations	A-D Wings - Office, Library, Original Classrooms, Restrooms	
Constructed/ Renovated	1955	
Total Area	29,700 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slabs Wood framed walls and roofs	Good
Façade	Painted wood with steel-framed operable and fixed windows	Fair
Roof	Primary: Flat construction with modified bituminous finish	Fair
Interiors	Walls: Painted wood Floors: Carpet, VCT Ceilings: ACT	Fair
Elevators	None	--
Plumbing	Copper and cast iron supply, cast iron waste and vent Natural gas domestic hot water in A-Wing	Fair
HVAC	Fan coil units with outdoor heat pumps, VRF heat pumps Supplemental components: ductless mini split-systems	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Good
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Key Issues & Findings	Buildings lack fire suppression, sink drains in restrooms are not wrapped per ADA, some floor tile is 9"x9" which may contain asbestos, gutters have seam leaks, ceiling tile is in poor condition, wooden lap board siding has several areas of warping and unprotected material	

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Building Type 2 Information



Building Type 2 Information		
Building Locations	E-Wing and P-Wing Classrooms	
Constructed/ Renovated	2004, 2014	
Total Area	5,300 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slabs Wood-frame bearing walls and wood-framed roofs	Good
Façade	Stucco with aluminum-framed operable windows	Good
Roof	Primary: Gable construction with metal finish	Fair
Interiors	Walls: Painted gypsum board & tack board Floors: Carpet, VCT Ceilings: ACT, drywall	Fair
Elevators	None	--
Plumbing	Copper supply, PVC waste and vent No hot water	Fair
HVAC	Gas furnaces with remote condensing units	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Key Issues & Findings	Buildings lack fire suppression	

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M-U Building Information



M-U Building Information		
Building Locations	M-U Building	
Constructed/ Renovated	1955	
Building Size	4,400 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Steel-framed structure on concrete slabs Wood and steel bearing walls and wood-framed roof	Good
Façade	Painted wood with steel-framed fixed windows	Fair
Roof	Primary: Flat construction with modified bituminous finish, Kalwall skylight	Fair
Interiors	Walls: ACT, painted wood Floors: VCT, rubber floor in kitchen, wooden stage floor Ceilings: ACT, Painted plaster	Fair
Elevators	Wheelchair lift	Fair
Plumbing	Cast iron and copper supply, cast iron waste and vent Gas domestic hot water heater	Fair
HVAC	Natural gas boiler serving four cabinet unit heaters	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8, stage lighting system	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment, sound system	Fair
Key Issues & Findings	Building lacks fire suppression, kitchen hood lacks fire suppression, boiler has exceeded its EUL	

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Site Summary Information



Site Information		
Lot Size	11.5 acres (estimated)	
Parking Spaces	57 total spaces all in open lots 3 accessible (included in total above), 2 van-accessible	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Pavement/Flatwork	Asphalt lots with areas of asphalt and concrete sidewalks and curbs	Fair
Site Development	Ground-mounted and building-mounted signage, chain-link fencing Playgrounds and sports courts Moderately furnished park benches, picnic tables, trash receptacles	Fair
Landscaping & Topography	Moderate landscaping features Irrigation present Relatively flat grade throughout site	Fair
Draining Systems and Erosion Control	Surface flow, pits	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Building-mounted: HPS, metal halide Recessed: LED and CFL fixtures	Fair
Ancillary Structures	Two steel-framed PV arraystructures/carports	Good
Key Issues & Findings	Plant growth into south side chain link fencing	