



FACILITY CONDITION ASSESSMENT

East Central Lower Elementary | November 2020





Executive Summary

East Central Lower Elementary, located at 5621 Hwy 614 in Hurley, Mississippi, oldest building is 22 years old (at time of 2020 assessment). It comprises 73,400 gross square feet.

The findings contained within this report are the result of an assessment of building systems performed by building professionals experienced in disciplines including architecture, mechanical, plumbing and electrical. The total current deficiencies for this site, in 2020 construction cost dollars, are estimated at \$1,208,938. A ten-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For East Central Lower Elementary the ten-year need is \$7,786,555.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined to calculate a Facility Condition Index (FCI). A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation. The East Central Lower Elementary facility has a 5-year FCI of 23.46%.

Summary of Findings

The table below summarizes the condition findings at East Central Lower Elementary

Table 1: Facility Condition by Building

Number	Building Name	Current Deficiencies	5-Year Life Cycle Cost	Yrs 6-10 Life Cycle Cost	Total 5 Yr Need (Yr 1-5 + Current Defs)	Total 10 Yr Need (Yr 1-10 + Current Defs)	Replacement Cost	5-Year FCI
Exterior Site								
	Exterior Site	\$78,714	\$0	\$700,164	\$78,714	\$778,878	\$0	
Permanent Building(s)								
01	class, library, café, ofc	\$1,130,224	\$3,510,251	\$2,367,202	\$4,640,475	\$7,007,677	\$20,114,540	23.07%
Sub Total for Permanent Building(s):		\$1,130,224	\$3,510,251	\$2,367,202	\$4,640,475	\$7,007,677	\$20,114,536	
Total for Site:		\$1,208,938	\$3,510,251	\$3,067,366	\$4,719,189	\$7,786,555	\$20,114,536	23.46%



Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates the ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each site to better identify significant deficiencies.

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the site's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 - Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 - Short-Term Conditions: Deficiencies that are necessary to the site's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 - Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 - Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.



The following table summarizes this site's current deficiencies by building system and priority.

Table 2: System by Priority (Site & Permanent Buildings)

System	Priority					Total	% of Total
	1	2	3	4	5		
Site	\$0	\$0	\$63,989	\$15,724	\$4,599	\$84,313	7.01 %
Roofing	\$0	\$0	\$25,501	\$0	\$0	\$25,501	2.12 %
Structural	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Exterior	\$0	\$251,392	\$10,108	\$114,665	\$0	\$376,166	31.28 %
Interior	\$0	\$0	\$1,325	\$210,393	\$0	\$211,718	17.61 %
Mechanical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Electrical	\$0	\$0	\$97,509	\$0	\$0	\$97,509	8.11 %
Plumbing	\$0	\$0	\$0	\$82,081	\$0	\$82,081	6.83 %
Fire and Life Safety	\$305,836	\$0	\$0	\$0	\$0	\$305,836	25.44 %
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Specialties	\$0	\$0	\$288	\$19,007	\$0	\$19,295	1.60 %
Total:	\$305,836	\$251,392	\$198,720	\$441,871	\$4,599	\$1,202,418	

The building systems at the site with the most need include:

Exterior	-	\$376,166
Fire and Life Safety	-	\$305,836
Interior	-	\$211,718



The chart below represents the building systems and associated deficiency costs.

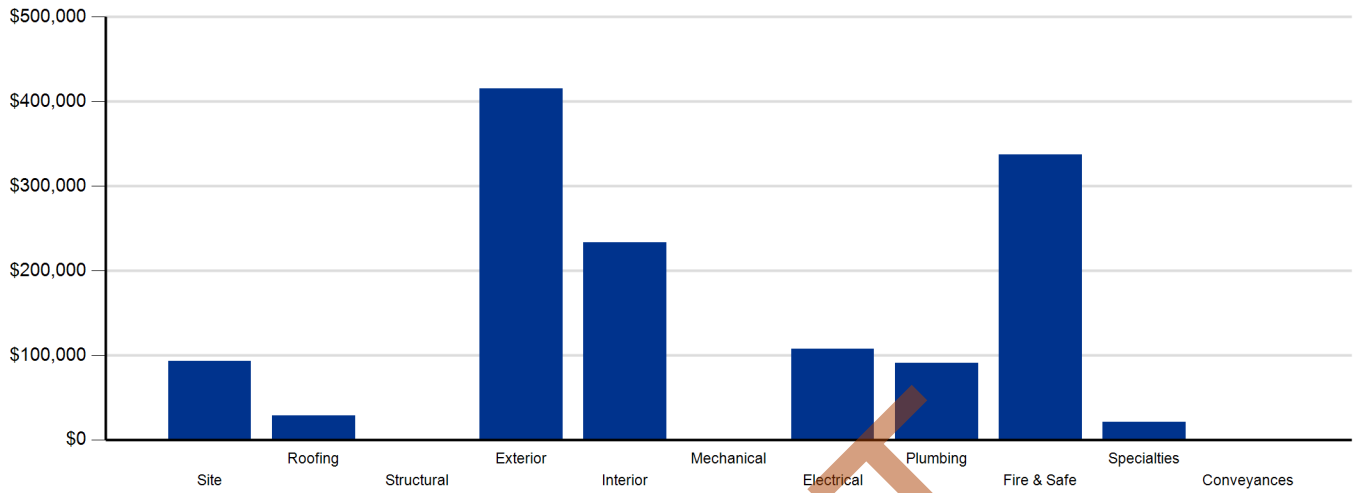


Figure 1: System Deficiencies

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Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If an assessor identified a need for immediate replacement, a deficiency was created with the item's repair costs. The identified deficiency contributes to the facility's total current repair costs.

However, capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a ten-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following tables show current deficiencies and the subsequent ten-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3a: Capital Renewal Forecast (Yrs 1-5)

System	Life Cycle Capital Renewal Projections					Total 1-5
	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	
Site	\$0	\$0	\$0	\$0	\$0	\$0
Roofing	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$0	\$0
Interior	\$0	\$0	\$551,852	\$206,658	\$35,218	\$793,728
Mechanical	\$0	\$0	\$101,344	\$545,777	\$4,222	\$651,343
Electrical	\$0	\$0	\$0	\$26,553	\$1,230,830	\$1,257,383
Plumbing	\$0	\$0	\$17,839	\$313,947	\$130,435	\$462,221
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$345,576	\$0	\$0	\$0	\$345,576
Total	\$0	\$345,576	\$671,035	\$1,092,935	\$1,400,705	\$3,510,251



Table 3b: Capital Renewal Forecast (Yrs 6-10)

System	Life Cycle Capital Renewal Projections						Total 6-10	Total 1-10
	Total 1-5	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030		
Site	\$0	\$200,658	\$132,278	\$0	\$367,228	\$0	\$700,164	\$700,164
Roofing	\$0	\$0	\$0	\$0	\$0	\$148,301	\$148,301	\$148,301
Exterior	\$0	\$0	\$114,665	\$0	\$0	\$72,080	\$186,745	\$186,745
Interior	\$793,728	\$92,570	\$0	\$208,374	\$0	\$286,017	\$586,961	\$1,380,689
Mechanical	\$651,343	\$518,230	\$0	\$45,905	\$0	\$17,371	\$581,506	\$1,232,849
Electrical	\$1,257,383	\$0	\$0	\$271,781	\$0	\$0	\$271,781	\$1,529,164
Plumbing	\$462,221	\$0	\$0	\$0	\$0	\$544,784	\$544,784	\$1,007,005
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$345,576	\$0	\$0	\$47,124	\$0	\$0	\$47,124	\$392,700
Total	\$3,510,251	\$811,458	\$246,943	\$573,184	\$367,228	\$1,068,553	\$3,067,366	\$6,577,617

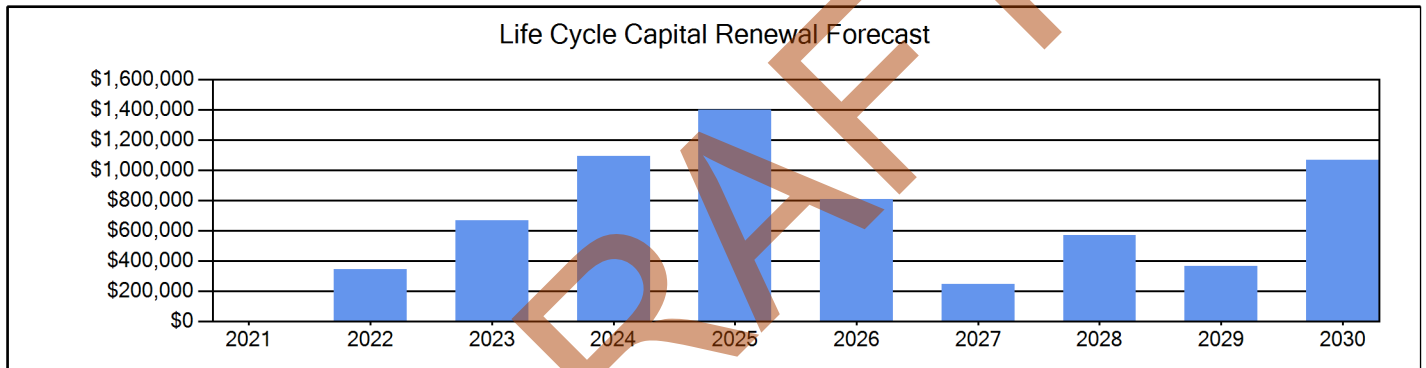
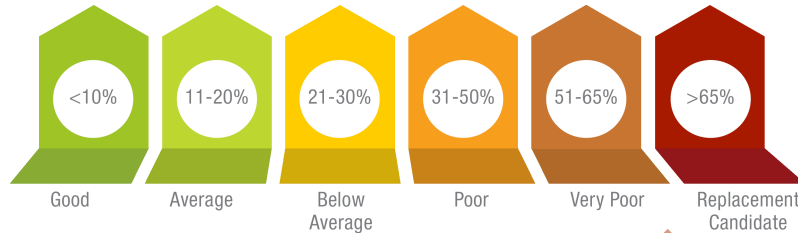


Figure 2: Ten Year Capital Renewal Forecast



Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building’s health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of sites. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair sites with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making campus facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today’s estimated cost of construction in the Jackson, MS area. The estimated replacement cost for this facility is \$20,114,536. For planning purposes, the total 5-year need at the East Central Lower Elementary is \$4,719,189 (Life Cycle Years 1-5 plus the FCI deficiency cost). The East Central Lower Elementary facility has a 5-year FCI of 23.46%.

5-Year Need vs. Replacement

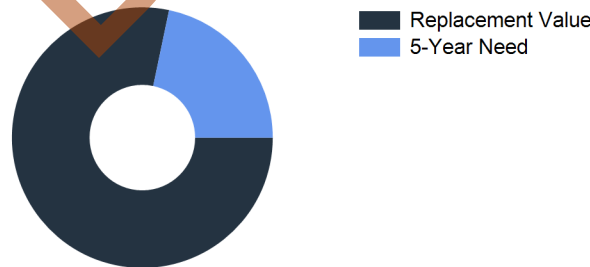


Figure 3: 5-Year FCI



East Central Lower Elementary - Deficiency Summary

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Driveway Replacement Note: Asphalt to be replaced to the North of cafeteria and in Southeast corner of the main parking lot	Capital Renewal	10,000	SF	3	\$57,379	437
Concrete Walks Replacement Location: Sidewalk to the East of main entry in the middle of ADA ramp to be replaced	Capital Renewal	100	SF	3	\$1,011	440
Fencing Replacement (8' - 10' high Chain Link Fence) Note: Top rail rusted throughout site and there are a few areas with damaged sections to be replaced.	Capital Renewal	200	LF	4	\$13,982	407
Gate Replacement Location: 4 Ft walk gate to be replaced located in the Southwest corner of the playground area around HVAC equipment	Deferred Maintenance	2	Ea.	4	\$1,101	408
Site Drainage Regrading Location: Area to the West of the cafeteria wing to be regraded	Deferred Maintenance	500	SF	4	\$642	439
Paving Restriping Note: Faded throughout site	Deferred Maintenance	155	CAR	5	\$4,599	438
Sub Total for System		6	items		\$78,714	
Sub Total for School and Site Level		6	items		\$78,714	

Building: 01 - class, library,café,ofc

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Access Is Not ADA Compliant - ADA Compliant Ramp Installation Note: Ramp at stage does not exist.	ADA Compliance	1	Ea.	3	\$5,599	810
Sub Total for System		1	items		\$5,599	

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Gutter Replacement Location: Entire perimeter of building and south canopy gutters	Deferred Maintenance	1,300	LF	3	\$23,601	77
Metal Downspout Installation Note: At south drop off canopy there are dents in four downspouts. One downspout on the west side of the building is missing and one on the south side of the building in the "U" shaped courtyard has fallen off.	Deferred Maintenance	90	LF	3	\$1,900	78
Sub Total for System		2	items		\$25,501	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Metal Exterior Door Replacement Note: Exterior doors are old, frames are worn, and hardware is constantly requiring repair and replacement.	Capital Renewal	76	Door	2	\$251,392	187
Caulking Replacement Note: Every reveal/joint needs to be recaulked and repainted in the concrete panel exterior wall.	Deferred Maintenance	1,500	LF	3	\$10,108	80
Exterior Painting (Bldg SF)	Capital Renewal	73,400	SF	4	\$114,665	79
Sub Total for System		3	items		\$376,166	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Door Hardware Replacement Note: Storage room door does not stay latched.	Capital Renewal	1	Door	3	\$1,325	86
Acoustical Ceiling Tile Replacement Location: Cafeteria	Capital Renewal	1,000	SF	4	\$3,013	82
Carpet Flooring Replacement Note: Carpet is water damaged and worn throughout.	Capital Renewal	14,680	SF	4	\$165,837	84



Facility Condition Assessment

Jackson CS - East Central Lower Elementary

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Toilet Partition Repair	Deferred Maintenance	2	Ea.	4	\$3,599	83
Note: Veneer is chipped						
Vinyl Composition Tile Replacement	Capital Renewal	5,200	SF	4	\$37,945	186
Note: VCT is separating at seams and has large gaps of separation. VCT is cracking in cafeteria, kitchen and one classroom.						
Sub Total for System		5	items		\$211,718	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Lightning Protection System Installation	Functional Deficiency	73,400	SF	3	\$51,146	76
Public Address System Replacement, Non-main Building	Deferred Maintenance	73,400	SF	3	\$46,363	88
Sub Total for System		2	items		\$97,509	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Refrigerated Water Cooler Replacement	Capital Renewal	6	Ea.	4	\$11,791	90
Note: Update 6 water fountains - 3 on first hall and 3 on second hall						
Restroom Lavatories Plumbing Fixtures Replacement	Capital Renewal	29	Ea.	4	\$70,289	72
Note: The porcelain coating on the lavatories is peeling, causing the drain area to rust.						
Sub Total for System		2	items		\$82,081	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Emergency Lighting Installation	Functional Deficiency	73,400	SF	1	\$51,084	75
Fire Alarm Replacement	Capital Renewal	73,400	SF	1	\$103,995	74
Security Alarm Is Missing	Functional Deficiency	73,400	SF	1	\$150,757	73
Sub Total for System		3	items		\$305,836	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Public Address System Head-End Requires Replacement	Functional Deficiency	1	Ea.	3	\$6,520	89
Sub Total for System		1	items		\$6,520	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Counter Heights Exceed Maximum ADA Height Requirements (Modify Full)	ADA Compliance	5	LF	3	\$288	809
Note: No ADA height counter present.						
Repair Cabinetry In Classes/Labs	Deferred Maintenance	22	Room	4	\$19,007	87
Note: Half of classrooms have chipped and peeling veneer.						
Sub Total for System		2	items		\$19,295	
Sub Total for Building 01 - class, library, café, ofc		21	items		\$1,130,224	
Total for Campus		27	items		\$1,208,938	



East Central Lower Elementary - Life Cycle Summary Yrs 1-10

Site Level Life Cycle Items

Site	Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
	Parking Lot Pavement	Asphalt	155	CAR	\$200,658	6
	Fences and Gates	Fencing - Chain Link (4 Ft)	70	LF	\$2,948	7
	Fences and Gates	Fencing - Chain Link (8-10 Ft)	1,850	LF	\$129,330	7
	Roadway Pavement	Asphalt Driveways	64,000	SF	\$367,228	9
		Sub Total for System	4	items	\$700,163	
		Sub Total for Building -	4	items	\$700,163	

Building: 01 - class, library,café,ofc

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Canopy Roofing	Metal Awning	4,100	SF	\$148,301	10
	Sub Total for System	1	items	\$148,301	

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Exterior Painting - Bldg SF basis	73,400	SF	\$114,665	7
Exterior Operating Windows	Aluminum - Windows per SF	810	SF	\$72,080	10
	Sub Total for System	2	items	\$186,745	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	58,720	SF	\$176,930	3
Resilient Flooring	Vinyl Composition Tile Flooring	51,380	SF	\$374,922	3
Interior Door Supplementary Components	Door Hardware	156	Door	\$206,658	4
Wall Painting and Coating	Painting/Staining (Bldg SF)	8,808	SF	\$35,218	5
Tile Flooring	Ceramic Tile	5,872	SF	\$92,570	6
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	13,212	SF	\$39,809	8
Suspended Plaster and	Painted ceilings	1,468	SF	\$2,728	8
Carpeting	Carpet	14,680	SF	\$165,837	8
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System	58,720	SF	\$218,191	10
Interior Swinging Doors	Metal Door (Steel)	6	Door	\$15,493	10
Interior Swinging Doors	Wooden Door	150	Door	\$52,333	10
	Sub Total for System	11	items	\$1,380,689	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heating System Supplementary Components	Controls - Electronic (Bldg.SF)	73,400	SF	\$101,344	3
Decentralized Cooling	Condenser - Outside Air Cooled (8 Tons)	2	Ea.	\$20,677	4
Decentralized Cooling	Fan Coil - DX Cool w/Electric Heat (3 Ton)	40	Ea.	\$70,314	4
Decentralized Cooling	Heat Pump (5 Ton)	30	Ea.	\$324,847	4
Decentralized Cooling	Heat Pump (5 Ton)	12	Ea.	\$129,939	4
Exhaust Air	Wall Exhaust Fan	1	Ea.	\$4,222	5
HVAC Air Distribution	Ductwork (Bldg.SF)	73,400	SF	\$518,230	6
Decentralized Cooling	Heat Pump (12 Ton)	2	Ea.	\$45,905	8
Exhaust Air	Interior Ceiling Exhaust Fan	40	Ea.	\$17,371	10
	Sub Total for System	9	items	\$1,232,849	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	33	Ea.	\$26,553	4
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	16	Ea.	\$29,738	5
Lighting Fixtures	Light Fixtures (Bldg SF)	73,400	SF	\$1,201,092	5
Electrical Service	Switchgear - Main Dist Panel (2000 Amps)	1	Ea.	\$58,426	8
Electrical Service	Transformer (112.5 KVA)	1	Ea.	\$8,841	8
Electrical Service	Transformer (30 KVA)	1	Ea.	\$4,925	8
Electrical Service	Transformer (75 KVA)	1	Ea.	\$6,503	8
Power Distribution	Distribution Panels (400 Amps)	2	Ea.	\$30,169	8



Facility Condition Assessment

Jackson CS - East Central Lower Elementary

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Power Distribution	Panelboard - 120/208 400A	2	Ea.	\$22,025	8
Power Distribution	Panelboard - 120/208 100A	1	Ea.	\$2,482	8
Power Distribution	Panelboard - 120/208 225A	6	Ea.	\$29,444	8
Power Distribution	Panelboard - 277/480 600A	2	Ea.	\$32,519	8
Power Distribution	Panelboard - 277/480 100A	3	Ea.	\$17,905	8
Power Distribution	Panelboard - 277/480 225A	7	Ea.	\$58,542	8
Sub Total for System		14	items	\$1,529,164	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 20 gallon	1	Ea.	\$1,416	3
Domestic Water Equipment	Water Heater - Gas - 300 Gallon	1	Ea.	\$16,423	3
Plumbing Fixtures	Refrigerated Drinking Fountain	3	Ea.	\$5,896	4
Plumbing Fixtures	Sink - Service / Mop Sink	4	Ea.	\$2,841	4
Plumbing Fixtures	Toilets	66	Ea.	\$297,960	4
Plumbing Fixtures	Urinals	6	Ea.	\$7,250	4
Plumbing Fixtures	Classroom Lavatory	57	Ea.	\$130,435	5
Domestic Water Equipment	Gas Piping System (BldgSF)	10,000	SF	\$309,411	10
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)	73,400	SF	\$235,373	10
Sub Total for System		9	items	\$1,007,004	

Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	44	Room	\$345,576	2
Casework	Fixed Cabinetry	6	Room	\$47,124	8
Sub Total for System		2	items	\$392,700	
Sub Total for Building 01 - class, library,café,ofc		48	items	\$5,877,451	
Total for: East Central Lower Elementary		52	items	\$6,577,614	

DRAFT



Supporting Photos



Cracked sidewalk east of main entry



Worn asphalt parking area



Faded striping, typical throughout parking lot



Elevation



Gutter rusted with holes



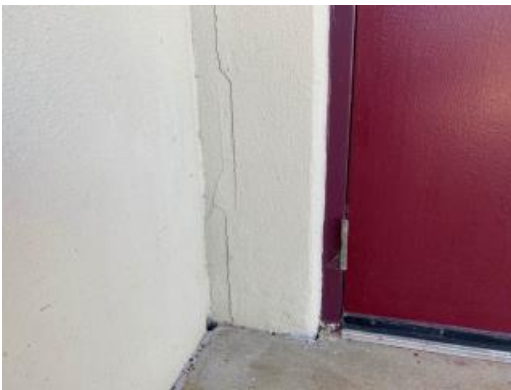
Missing downspout



Concrete panel joint needs recaulking



Worn exterior doors



North side of building crack in wall at door



Water damaged carpet



VCT separating at seams



Peeling veneer in computer lab