



# FACILITY CONDITION ASSESSMENT

Allison ES | February 2022



## Executive Summary

Allison ES is located at 515 Vargas Rd in Austin, Texas. The oldest building is 65 years old (at time of 2020 assessment). It comprises 61,426 gross square feet.

The findings contained within this report are the result of an assessment of building systems and the conditions found on the site at the time of the visit. The assessment was 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 \$2,934,429. 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 Allison ES the ten-year need is \$10,682,291.

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 Assessment (FCA) score. A 5-year FCA was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCA calculation. The Allison ES facility has a 5-year FCA score of 49.69%.

## Summary of Findings

The table below summarizes the condition findings at Allison ES

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 FCA
<b>Exterior Site</b>								
	Exterior Site	\$1,130,343	\$202,302	\$0	\$1,332,645	\$1,332,645	\$0	
<b>Permanent Building(s)</b>								
101A	Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.	\$1,804,086	\$7,011,442	\$534,118	\$8,815,528	\$9,349,646	\$20,171,690	56.30%
<b>Sub Total for Permanent Building(s):</b>		<b>\$1,804,086</b>	<b>\$7,011,442</b>	<b>\$534,118</b>	<b>\$8,815,528</b>	<b>\$9,349,646</b>	<b>\$20,171,686</b>	
<b>Total for Site:</b>		<b>\$2,934,429</b>	<b>\$7,213,744</b>	<b>\$534,118</b>	<b>\$10,148,173</b>	<b>\$10,682,291</b>	<b>\$20,171,686</b>	<b>49.69%</b>

## 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	\$0	\$0	\$1,130,343	\$1,130,343	38.62 %
Roofing	\$1,307,797	\$0	\$0	\$0	\$0	\$1,307,797	44.68 %
Structural	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Exterior	\$0	\$284,913	\$0	\$0	\$59,026	\$343,939	11.75 %
Interior	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Mechanical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Electrical	\$0	\$43,099	\$43,482	\$0	\$0	\$86,581	2.96 %
Plumbing	\$0	\$0	\$5,417	\$46,177	\$0	\$51,594	1.76 %
Fire and Life Safety	\$6,868	\$0	\$0	\$0	\$0	\$6,868	0.23 %
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Specialties	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
<b>Total:</b>	\$1,314,665	\$328,012	\$48,899	\$46,177	\$1,189,369	\$2,927,122	

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

Roofing	-	\$1,307,797
Site	-	\$1,130,343
Exterior	-	\$343,939

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

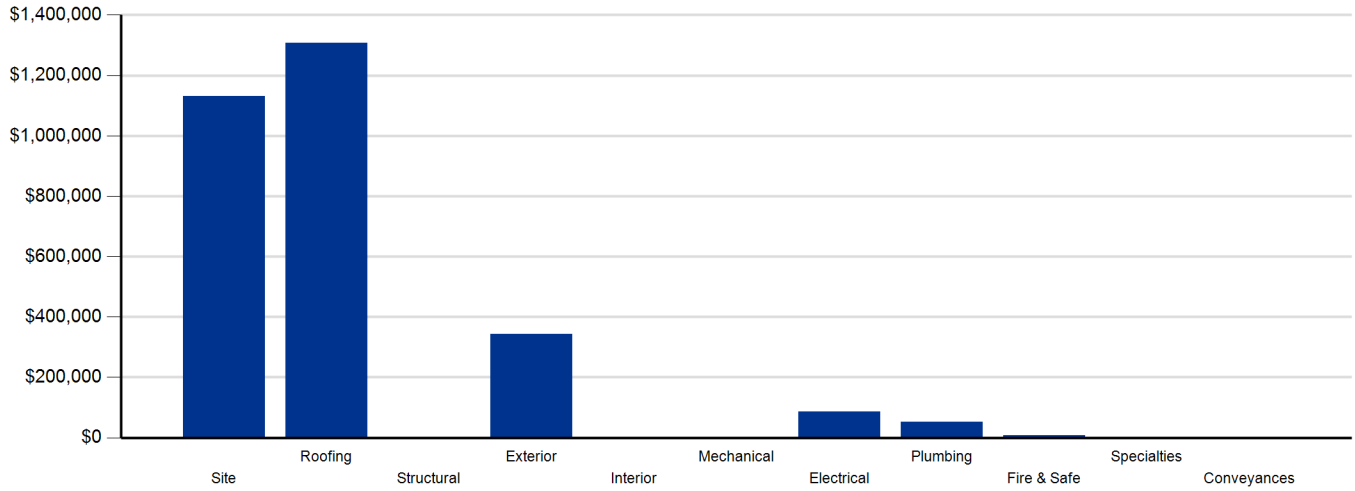


Figure 1: System Deficiencies

## 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 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	
Site	\$0	\$0	\$0	\$106,549	\$95,753	\$202,302
Roofing	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$1,180,886	\$1,180,886
Interior	\$0	\$0	\$7,597	\$224,183	\$734,339	\$966,119
Mechanical	\$0	\$1,827,929	\$0	\$47,930	\$581,663	\$2,457,522
Electrical	\$0	\$0	\$0	\$72,955	\$1,172,612	\$1,245,567
Plumbing	\$0	\$0	\$0	\$269,016	\$391,525	\$660,541
Fire and Life Safety	\$0	\$0	\$97,533	\$141,385	\$0	\$238,918
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$0	\$0	\$0	\$308,066	\$308,066
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$1,827,929</b>	<b>\$105,130</b>	<b>\$862,018</b>	<b>\$4,464,844</b>	<b>\$7,259,921</b>

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 2028	Year 7 2029	Year 8 2030	Year 9 2031	Year 10 2032		
Site	\$202,302	\$0	\$0	\$0	\$0	\$0	\$0	\$202,302
Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$1,180,886	\$0	\$0	\$28,472	\$0	\$0	\$28,472	\$1,209,358
Interior	\$966,119	\$0	\$0	\$0	\$413,876	\$47,113	\$460,989	\$1,427,108
Mechanical	\$2,457,522	\$0	\$0	\$0	\$0	\$0	\$0	\$2,457,522
Electrical	\$1,245,567	\$0	\$0	\$0	\$0	\$0	\$0	\$1,245,567
Plumbing	\$660,541	\$0	\$0	\$0	\$73,129	\$0	\$73,129	\$733,670
Fire and Life Safety	\$238,918	\$0	\$0	\$0	\$0	\$0	\$0	\$238,918
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$308,066	\$0	\$0	\$0	\$0	\$0	\$0	\$308,066
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$7,259,921</b>	<b>\$0</b>	<b>\$0</b>	<b>\$28,472</b>	<b>\$487,005</b>	<b>\$47,113</b>	<b>\$562,590</b>	<b>\$7,822,511</b>

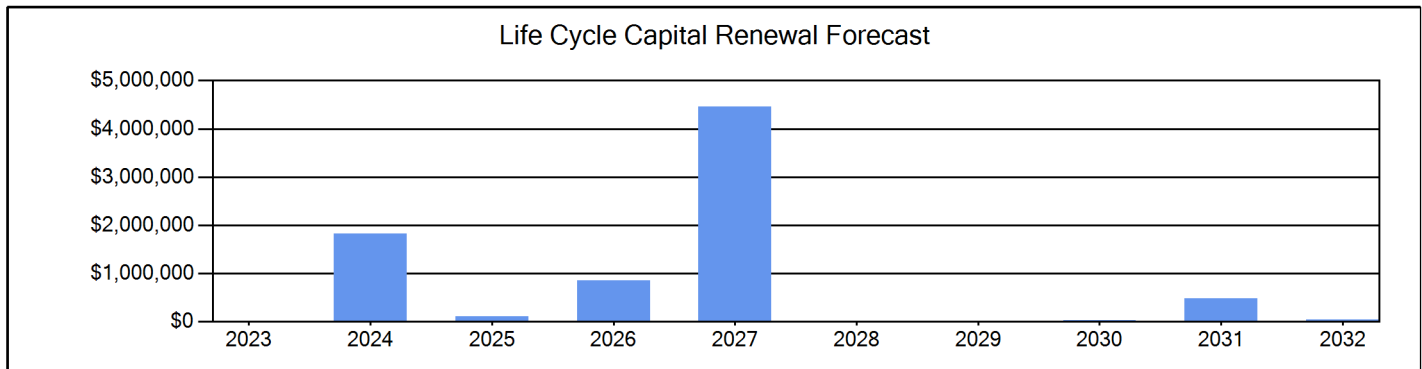


Figure 2: Ten Year Capital Renewal Forecast

## Facility Condition Assessment Score

The Facility Condition Assessment Score (FCAS) is used throughout the facility condition assessment industry as a general indicator of a building’s health. The FCAS is used to benchmark the relative condition of a group of sites. The FCAS is derived by dividing the total repair cost, site-related repairs, by the total replacement cost and subtracting it from 100. A facility with a lower FCAS percentage has more need, or higher priority, than a facility with a lower FCAS. It should be noted that costs in the New Construction category are not included in the FCAS calculation.

$$FCAS = 100 - (\text{Total Repair Cost} / \text{Replacement Cost})$$

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 FCAS was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCAS calculation.

- Very Unsatisfactory (0-35)
- Unsatisfactory (36-50)
- Average (51-65)
- Satisfactory (66-80)
- Very Satisfactory (81-100)

Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair sites with a FCAS of 35 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 FCAS 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, FCAS 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.

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 Austin area. The estimated replacement cost for this facility is \$20,171,686. For planning purposes, the total 5-year need at the Allison ES is \$10,148,173 (Life Cycle Years 1-5 plus the FCA deficiency cost). The Allison ES facility has a 5-year FCA of 49.69%.

5-Year Need vs. Replacement

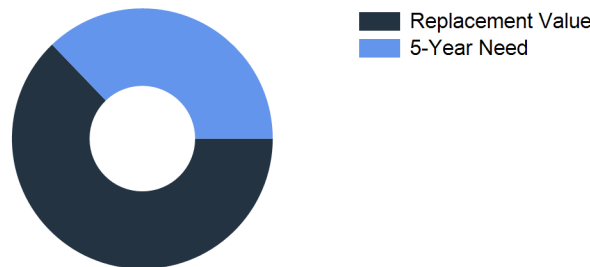


Figure 3: 5-Year FCA



## Allison ES - Deficiency Summary

### Site Level Deficiencies

#### Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
PROGRAM DEFICIENCIES	ADA Compliance	484,781	EACH	5	\$832,360	1618
PUBLIC DEFICIENCIES	ADA Compliance	145,278	EACH	5	\$249,440	1617
TAS ACCESSIBILITY DEFICIENCIES	ADA Compliance	28,273	EACH	5	\$48,544	1619
<b>Sub Total for System</b>		<b>3</b>	<b>items</b>		<b>\$1,130,343</b>	
<b>Sub Total for School and Site Level</b>		<b>3</b>	<b>items</b>		<b>\$1,130,343</b>	

### Building: 101A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

#### Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
AISD ROOFING P1	Capital Renewal	460,212	EACH	1	\$460,202	1790
AISD ROOFING P2	Capital Renewal	424,419	EACH	1	\$424,410	1791
AISD ROOFING P4	Capital Renewal	423,195	EACH	1	\$423,186	1792
<b>Sub Total for System</b>		<b>3</b>	<b>items</b>		<b>\$1,307,797</b>	

#### Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Aluminum Window Replacement	Capital Renewal	120	SF	2	\$11,967	1460
Aluminum Window Replacement	Capital Renewal	396	SF	2	\$39,492	1461
Aluminum Window Replacement	Capital Renewal	560	SF	2	\$55,847	1462
Aluminum Window Replacement	Capital Renewal	420	SF	2	\$41,885	1463
Steel Window Replacement	Capital Renewal	48	SF	2	\$6,938	1045
<b>Note:</b> Replace broken windows						
<b>Location:</b> admin area						
Steel Window Replacement	Capital Renewal	54	SF	2	\$7,805	1464
Steel Window Replacement	Capital Renewal	640	SF	2	\$92,507	1465
Wood Exterior Door Replacement	Capital Renewal	9	Door	2	\$28,472	1500
Exterior Cleaning	Deferred Maintenance	15,000	SF Wall	5	\$58,093	1440
Overhead Door Repainting	Deferred Maintenance	84	SF	5	\$933	1046
<b>Sub Total for System</b>		<b>10</b>	<b>items</b>		<b>\$343,939</b>	

#### Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Distribution Panel Replacement	Capital Renewal	1	Ea.	2	\$16,712	1511
Distribution Panel Replacement	Capital Renewal	1	Ea.	2	\$18,564	1512
Panelboard Replacement	Capital Renewal	1	Ea.	2	\$7,823	1048
Public Address System Replacement, Non-main Building	Deferred Maintenance	61,426	SF	3	\$43,482	1049
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>		<b>\$86,581</b>	

#### Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Urinal Replacement	Capital Renewal	4	Ea.	3	\$5,417	1504
Restroom Lavatories Plumbing Fixtures Replacement	Capital Renewal	17	Ea.	4	\$46,177	1509
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>		<b>\$51,594</b>	

#### Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Alarm Panel Replacement	Capital Renewal	1	Ea.	1	\$6,868	1499
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$6,868</b>	

**Technology**

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Public Address System Head-End Requires Replacement	Functional Deficiency	1	Ea.	3	\$7,307	1437
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$7,307</b>	
<b>Sub Total for Building 101A - Main building includes Administration Offices, Classrooms, Cafeteria, &amp; Gym.</b>		<b>21</b>	<b>items</b>		<b>\$1,804,086</b>	
<b>Total for Campus</b>		<b>24</b>	<b>items</b>		<b>\$2,934,429</b>	

## Allison ES - Life Cycle Summary Yrs 1-10

### Site Level Life Cycle Items

#### Site

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fences and Gates	Fencing - Chain Link (8-10 Ft)	1,360	LF	\$106,549	4
Parking Lot Pavement	Asphalt	66	CAR	\$95,753	5
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$202,302</b>	
<b>Sub Total for Building -</b>		<b>2</b>	<b>items</b>	<b>\$202,302</b>	

### Building: 101A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

#### Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Brick - Bldg SF basis	36,856	SF	\$1,035,454	5
Exterior Wall Veneer	Stucco - Bldg SF basis	12,285	SF	\$63,878	5
Exterior Entrance Doors	Steel - Insulated and Painted	22	Door	\$81,554	5
Exterior Entrance Doors	Wooden Door	9	Door	\$28,472	8
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>	<b>\$1,209,357</b>	

#### Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Non Painted - Plaster/Gypsum Board Finish	1,229	SF	\$7,597	3
Wall Painting and Coating	Painting/Staining (Bldg SF)	18,428	SF	\$82,574	4
Carpeting	Carpet	6,143	SF	\$77,771	4
Interior Door Supplementary Components	Door Hardware	43	Door	\$63,838	4
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System	46,070	SF	\$191,847	5
Acoustical Suspended Ceilings	Ceiling Exposed Metal Structure	3,071	SF	\$2,656	5
Suspended Plaster and	Painted ceilings	4,914	SF	\$10,234	5
Tile Wall Finish	Ceramic Tile wall	27,642	SF	\$229,479	5
Wall Paneling	Wood Panel wall	3,071	SF	\$48,160	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	46,070	SF	\$155,567	5
Compartments and Cubicles	Toilet Partitions	15	Stall	\$30,247	5
Wood Flooring	Wood Flooring - All Types	3,071	SF	\$66,149	5
Stone Facing	CMU Wall	12,285	SF	\$413,876	9
Athletic Flooring	Athletic/Sport Flooring	3,071	SF	\$47,113	10
<b>Sub Total for System</b>		<b>14</b>	<b>items</b>	<b>\$1,427,109</b>	

#### Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Hydronic Distribution Systems	Ground Source Loop Field Pipe	140	Ton	\$1,820,338	2
	<b>Note:</b> Bldg A is 70% Ground Source and 30% RTU's.				
Decentralized Cooling	Thru-Wall AC (4 Ton)	1	Ea.	\$7,591	2
	<b>Note:</b> Art room, BARD unit				
Decentralized Cooling	Condenser - Outside Air Cooled (3 Tons)	2	Ea.	\$12,845	4
	<b>Note:</b> IT Room support, roof mount, Fijitsu units				
Decentralized Cooling	Ductless Split System (3 Ton)	2	Ea.	\$10,849	4
	<b>Note:</b> IT Room				
HVAC Air Distribution	Roof Top Unit - DX Gas (10 Ton)	1	Ea.	\$24,236	4
	<b>Note:</b> RTU-2 GYM				
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	61,426	SF	\$165,680	5
Decentralized Cooling	Heat Pump (3 Ton)	2	Ea.	\$17,815	5
	<b>Note:</b> VHP-1, VHP-2 Library				
Exhaust Air	Roof Exhaust Fan - Small	3	Ea.	\$5,879	5
Exhaust Air	Roof Exhaust Fan - Large	3	Ea.	\$24,109	5
Decentralized Cooling	Heat Pump (10 Ton)	2	Ea.	\$48,088	5
	<b>Note:</b> VHP-3, VHP-4 Library				
Decentralized Cooling	Heat Pump (3 Ton)	33	Ea.	\$293,952	5
	<b>Note:</b> Classrooms, hallway				
Air Distribution	Make-up Air Unit	1	Ea.	\$8,888	5
	<b>Note:</b> OAU-1 roof mounted				

**Mechanical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)	4	Ea.	\$17,252	5
<b>Note:</b> VHP Pumps, Library					
		<b>Sub Total for System</b>		<b>13 items</b>	<b>\$2,457,524</b>

**Electrical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Power Distribution	Power Wiring	61,426	SF	\$72,955	4
Power Distribution	Panelboard - 120/208 100A	1	Ea.	\$2,782	5
Power Distribution	Panelboard - 120/208 225A	4	Ea.	\$21,998	5
Power Distribution	Panelboard - 120/240 100A	1	Ea.	\$4,236	5
Lighting Fixtures	Building Mounted Fixtures (Ea.)	19	Ea.	\$17,133	5
Lighting Fixtures	Light Fixtures (Bldg SF)	61,426	SF	\$1,126,463	5
		<b>Sub Total for System</b>		<b>6 items</b>	<b>\$1,245,567</b>

**Plumbing**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Restroom Lavatory	17	Ea.	\$46,177	4
Plumbing Fixtures	Sink - Service / Mop Sink	5	Ea.	\$3,979	4
Plumbing Fixtures	Showers	1	Ea.	\$1,306	4
Plumbing Fixtures	Toilets	43	Ea.	\$217,554	4
Sanitary Sewerage Piping	Sanitary Sewer Piping	61,426	SF	\$68,197	5
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)	61,426	SF	\$220,748	5
Plumbing Fixtures	Classroom Lavatory	40	Ea.	\$102,580	5
Domestic Water Equipment	Water Heater - Gas - 100 Gallon	1	Ea.	\$6,384	9
<b>Note:</b> 2019					
Plumbing Fixtures	Non-Refrigerated Drinking Fountain	28	Ea.	\$66,745	9
		<b>Sub Total for System</b>		<b>9 items</b>	<b>\$733,671</b>

**Fire and Life Safety**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	61,426	SF	\$97,533	3
<b>Note:</b> Scheduled to be replaced in 5/2021					
Security System Component	Security Alarm System	61,426	SF	\$141,385	4
		<b>Sub Total for System</b>		<b>2 items</b>	<b>\$238,919</b>

**Specialties**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	35	Room	\$308,066	5
		<b>Sub Total for System</b>		<b>1 items</b>	<b>\$308,066</b>
<b>Sub Total for Building 101A - Main building includes Administration Offices, Classrooms, Cafeteria, &amp; Gym.</b>		<b>49 items</b>		<b>\$7,620,212</b>	
		<b>Total for: Allison ES</b>	<b>51 items</b>	<b>\$7,822,514</b>	

## Supporting Photos

### General Site Photos



Ceiling lights out



Ceiling accoustical tiles aged



Aged glued accoustical tiles



Interior wood door at end of life



HID lights out



Sagging classroom ceiling tiles



Broken exterior aluminum windows



Cracked concrete driveway



Aged electrical system



Broken and aged exterior wall



Old domestic water pumps at end of life