



FACILITY CONDITION ASSESSMENT

Blazier ES K-3 | February 2022



Executive Summary

Blazier ES K-3 is located at 8601 Vertex Blvd in Austin, Texas. The oldest building is 13 years old (at time of 2020 assessment). It comprises 82,897 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 \$3,398,022. 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 Blazier ES K-3 the ten-year need is \$5,794,088.

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 Blazier ES K-3 facility has a 5-year FCA score of 84.19%.

Summary of Findings

The table below summarizes the condition findings at Blazier ES K-3

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
Exterior Site								
	Exterior Site	\$0	\$0	\$0	\$0	\$0	\$0	
Permanent Building(s)								
185A	Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.	\$3,398,022	\$905,530	\$1,490,536	\$4,303,552	\$5,794,088	\$27,222,550	84.19%
Sub Total for Permanent Building(s):		\$3,398,022	\$905,530	\$1,490,536	\$4,303,552	\$5,794,088	\$27,222,548	
Total for Site:		\$3,398,022	\$905,530	\$1,490,536	\$4,303,552	\$5,794,088	\$27,222,548	84.19%

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	\$0	\$0	0.00 %
Roofing	\$1,983,237	\$0	\$0	\$0	\$0	\$1,983,237	58.49 %
Structural	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Exterior	\$0	\$0	\$9,663	\$0	\$0	\$9,663	0.28 %
Interior	\$0	\$0	\$0	\$0	\$830	\$830	0.02 %
Mechanical	\$0	\$456,355	\$276,309	\$135,120	\$0	\$867,785	25.59 %
Electrical	\$0	\$0	\$58,681	\$0	\$0	\$58,681	1.73 %
Plumbing	\$49,294	\$0	\$379,752	\$41,473	\$0	\$470,519	13.88 %
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
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 %
Total:	\$2,032,532	\$456,355	\$724,405	\$176,594	\$830	\$3,390,715	

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

Roofing	-	\$1,983,237
Mechanical	-	\$867,785
Plumbing	-	\$470,519

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

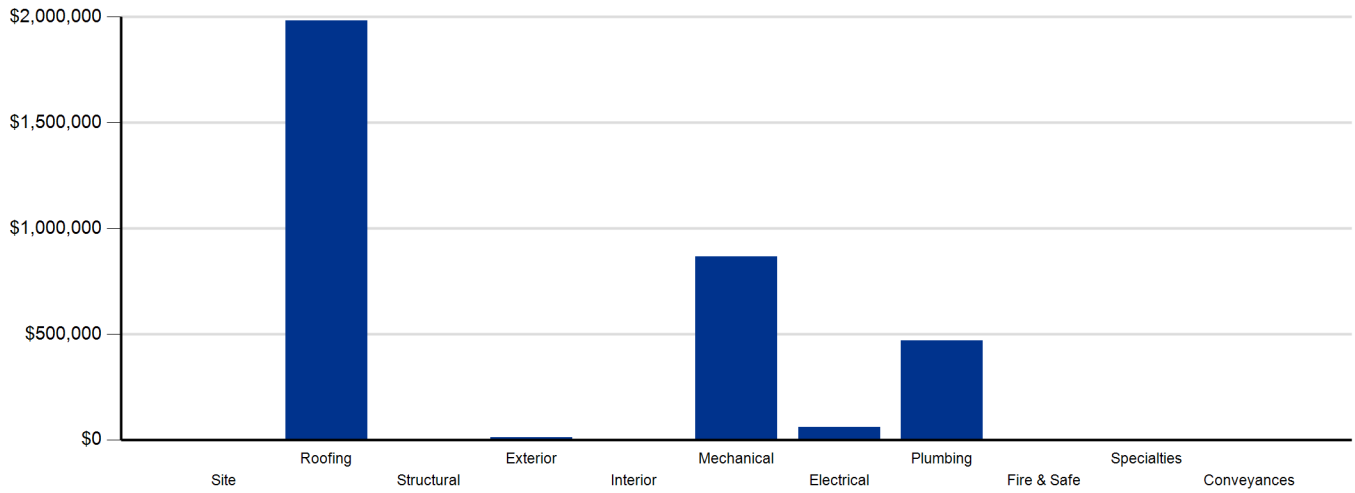


Figure 1: System Deficiencies

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	\$0	\$0	\$0
Roofing	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$0	\$0
Interior	\$0	\$0	\$0	\$104,949	\$487,536	\$592,485
Mechanical	\$0	\$0	\$0	\$250,481	\$62,564	\$313,045
Electrical	\$0	\$0	\$0	\$0	\$0	\$0
Plumbing	\$0	\$0	\$0	\$0	\$0	\$0
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$0	\$0	\$0	\$0	\$0
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$355,430	\$550,100	\$905,530

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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interior	\$592,485	\$167,954	\$89,280	\$264,080	\$0	\$0	\$521,314	\$1,113,799
Mechanical	\$313,045	\$0	\$0	\$0	\$0	\$1,340,092	\$1,340,092	\$1,653,137
Electrical	\$0	\$0	\$0	\$33,178	\$0	\$37,493	\$70,671	\$70,671
Plumbing	\$0	\$0	\$0	\$0	\$0	\$124,883	\$124,883	\$124,883
Fire and Life Safety	\$0	\$0	\$0	\$0	\$138,493	\$49,294	\$187,787	\$187,787
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$905,530	\$167,954	\$89,280	\$297,258	\$138,493	\$1,551,762	\$2,244,747	\$3,150,277

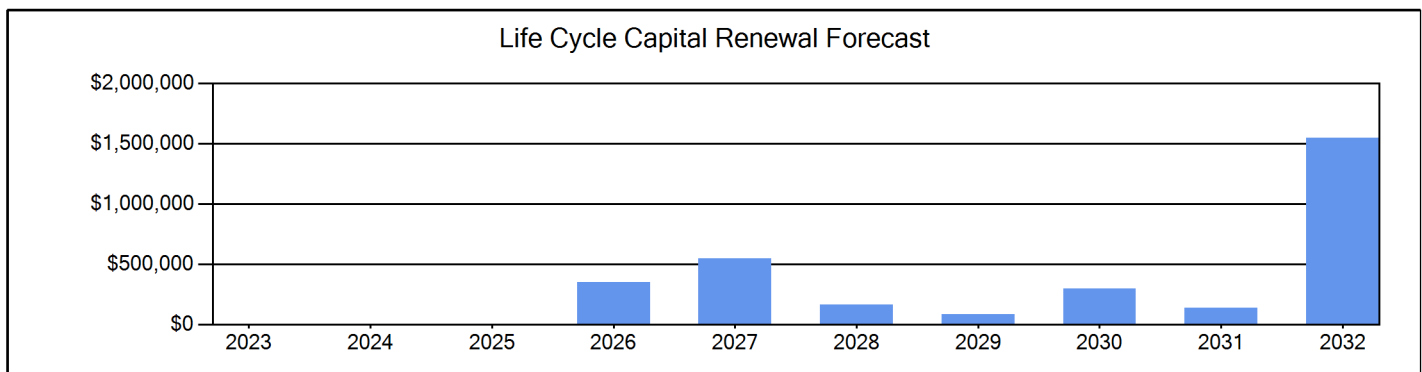


Figure 2: Ten Year Capital Renewal Forecast

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 \$27,222,548. For planning purposes, the total 5-year need at the Blazier ES K-3 is \$4,303,552 (Life Cycle Years 1-5 plus the FCA deficiency cost). The Blazier ES K-3 facility has a 5-year FCA of 84.19%.

5-Year Need vs. Replacement

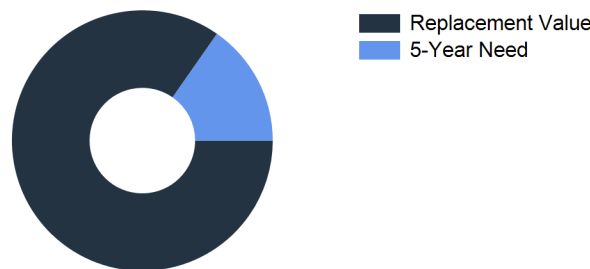


Figure 3: 5-Year FCA

Blazier ES K-3 - Deficiency Summary

Building: 185A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
AISD ROOFING P2	Capital Renewal	6,464	EACH	1	\$6,464	1797
AISD ROOFING P3	Capital Renewal	1,959,750	EACH	1	\$1,959,707	1798
AISD ROOFING P5	Capital Renewal	17,067	EACH	1	\$17,067	1799
Sub Total for System		3	items		\$1,983,237	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Weatherstripping on Window Replacement	Capital Renewal	50	Ea.	3	\$9,663	760
Note: Storefront door perimeter sealant and window gaskets are damaged and need replacement.						
Sub Total for System		1	items		\$9,663	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Ceiling Repainting	Deferred Maintenance	100	SF	5	\$830	859
Note: There is water damage on the ceiling from a nearby sprinkler.						
Location: Hallway near northwest skylight						
Sub Total for System		1	items		\$830	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Copper Tube Boiler Replacement	Capital Renewal	2	Ea.	2	\$34,856	1363
Location: Mechanical Yard						
Exterior Chiller Replacement	Capital Renewal	2	Ea.	2	\$421,499	809
Note: 195 Tons						
Location: Mechanical Yard						
Circulation Pump Replacement	Capital Renewal	2	Ea.	3	\$28,763	843
Location: Mechanical Room						
Circulation Pump Replacement	Capital Renewal	2	Ea.	3	\$23,121	844
Computer Room A/C Replacement	Capital Renewal	1	Ea.	3	\$43,693	837
Replace Variable Frequency Drive	Capital Renewal	2	Ea.	3	\$21,249	838
Replace Variable Frequency Drive	Capital Renewal	1	Ea.	3	\$7,559	839
Replace Variable Frequency Drive	Capital Renewal	2	Ea.	3	\$10,446	840
Testing And Balancing	Deferred Maintenance	41,449	SF	3	\$141,478	763
Note: Several rooms in the building, particularly the electrical rooms are really warm.						
Circulation Pump Replacement	Capital Renewal	1	Ea.	4	\$6,850	842
Location: Mechanical Room						
Existing Controls Are Obsolete	Capital Renewal	82,897	SF	4	\$128,271	774
Sub Total for System		11	items		\$867,785	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Public Address System Replacement, Non-main Building	Deferred Maintenance	82,897	SF	3	\$58,681	1529
Sub Total for System		1	items		\$58,681	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Pump Replacement	Deferred Maintenance	1	Ea.	1	\$49,294	846
Note: 1/6 HP						
Location: Riser Room						
Gas Water Heater Replacement	Capital Renewal	2	Ea.	3	\$12,768	767
Location: Mechanical Room						

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Toilet Replacement	Capital Renewal	72	Ea.	3	\$364,276	771
Urinal Replacement	Capital Renewal	2	Ea.	3	\$2,708	772
Custodial Mop Or Service Sink Replacement	Capital Renewal	6	Ea.	4	\$4,775	770
Location: Janitor Room						
Non-Refrigerated Drinking Fountain Replacement	Capital Renewal	4	Ea.	4	\$9,535	773
Location: Hallway						
Restroom Lavatories Plumbing Fixtures Replacement	Capital Renewal	10	Ea.	4	\$27,163	769
Sub Total for System		7	items		\$470,519	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Public Address System Head-End Requires Replacement	Functional Deficiency	1	Ea.	3	\$7,307	1530
Sub Total for System		1	items		\$7,307	
Sub Total for Building 185A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.		25	items		\$3,398,022	
Total for Campus		25	items		\$3,398,022	

Blazier ES K-3 - Life Cycle Summary Yrs 1-10

Building: 185A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet	8,290	SF	\$104,949	4
Wall Painting and Coating	Painting/Staining (Bldg SF)	33,159	SF	\$148,582	5
Resilient Flooring	Vinyl Composition Tile Flooring	41,449	SF	\$338,954	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	49,738	SF	\$167,954	6
Wood Flooring	Wood Flooring - All Types	4,145	SF	\$89,280	7
Suspended Plaster and	Painted ceilings	8,290	SF	\$17,264	8
Compartments and Cubicles	Toilet Partitions	24	Stall	\$48,396	8
Fluid-Applied Flooring	Epoxy Coating	4,145	SF	\$49,959	8
Interior Door Supplementary Components	Door Hardware	100	Door	\$148,461	8
Sub Total for System		9	items	\$1,113,798	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Heating Equipment	Unit Heater Electric (5 KW)	1	Ea.	\$1,299	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (2 Ton)	1	Ea.	\$2,131	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (3 Ton)	3	Ea.	\$10,170	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (5 Ton)	28	Ea.	\$159,986	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (5 Ton)	8	Ea.	\$45,710	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (5 Ton)	2	Ea.	\$11,428	4
Decentralized Cooling	Heat Pump (3 Ton)	1	Ea.	\$8,908	4
Decentralized Cooling	Ductless Split System (3 Ton)	2	Ea.	\$10,849	4
Exhaust Air	Kitchen Exhaust Hoods	2	Ea.	\$22,383	5
Exhaust Air	Roof Exhaust Fan - Large	5	Ea.	\$40,181	5
Heat Generation	Boiler - Copper Tube (200 MBH)	2	Ea.	\$34,856	10
Heating System Supplementary Components	Controls - Electronic (Bldg.SF)	82,897	SF	\$128,271	10
Central Cooling	Chiller - Outdoor Air Cooled (210 Tons)	2	Ea.	\$421,499	10
Other HVAC Distribution Systems	VFD (25 HP)	2	Ea.	\$21,249	10
Other HVAC Distribution Systems	VFD (15 HP)	1	Ea.	\$7,559	10
Other HVAC Distribution Systems	VFD (7.5 HP)	2	Ea.	\$10,446	10
Facility Hydronic Distribution	Pump - 5HP	1	Ea.	\$6,850	10
Facility Hydronic Distribution	Pump- 25HP (Ea.)	2	Ea.	\$28,763	10
Facility Hydronic Distribution	Pump- 10HP (Ea.)	2	Ea.	\$23,121	10
HVAC Air Distribution	AHU 5,000 CFM Outdoor	1	Ea.	\$49,434	10
HVAC Air Distribution	AHU 10,000 CFM Outdoor	1	Ea.	\$101,341	10
HVAC Air Distribution	AHU 10,000 CFM Outdoor	5	Ea.	\$506,703	10
Sub Total for System		22	items	\$1,653,137	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Packaged Generator Assemblies	Exterior Electrical Enclosure	1	Ea.	\$715	8
Lighting Fixtures	Building Mounted Fixtures (Ea.)	36	Ea.	\$32,463	8
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	18	Ea.	\$37,493	10
Sub Total for System		3	items	\$70,671	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 100 Gallon	2	Ea.	\$12,768	10
Plumbing Fixtures	Classroom Lavatory	40	Ea.	\$102,580	10
Plumbing Fixtures	Non-Refrigerated Drinking Fountain	4	Ea.	\$9,535	10
Sub Total for System		3	items	\$124,883	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	82,897	SF	\$131,625	9
Fire Detection and Alarm	Fire Alarm Panel	1	Ea.	\$6,868	9

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Water-Based Fire-Suppression	Fire Pump	1	Ea.	\$49,294	10
Sub Total for System		3	items	\$187,787	
Sub Total for Building 185A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.		40	items	\$3,150,277	
Total for: Blazier ES K-3		40	items	\$3,150,277	

Supporting Photos

General Site Photos



School main entrance



Corroded unit heater pipe



Libert unit corroding



Corroding pipe



Library Computer Space