



FACILITY CONDITION ASSESSMENT

Menchaca ES | February 2022



Executive Summary

Menchaca ES is located at 1218 Farm to Market 1626 in Austin, Texas. The oldest building is 0 years old (at time of 2020 assessment). It comprises 80,893 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 \$0. 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 Menchaca ES the ten-year need is \$1,752,627.

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 Menchaca ES facility has a 5-year FCA score of 96.14%.

Summary of Findings

The table below summarizes the condition findings at Menchaca 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
Exterior Site								
	Exterior Site	\$0	\$0	\$0	\$0	\$0	\$0	
Permanent Building(s)								
147A	Administration	\$0	\$108,718	\$100,768	\$108,718	\$209,486	\$2,730,563	96.02%
147B	Classroom building	\$0	\$272,714	\$861,422	\$272,714	\$1,134,136	\$6,713,350	95.94%
147C	Cafeteria/Gym	\$0	\$58,636	\$350,369	\$58,636	\$409,005	\$1,953,189	97.00%
Sub Total for Permanent Building(s):		\$0	\$440,068	\$1,312,559	\$440,068	\$1,752,627	\$11,397,102	
Total for Site:		\$0	\$440,068	\$1,312,559	\$440,068	\$1,752,627	\$11,397,102	96.14%

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	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Structural	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Exterior	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Interior	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Mechanical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Electrical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
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:	\$0	\$0	\$0	\$0	\$0	\$0	

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

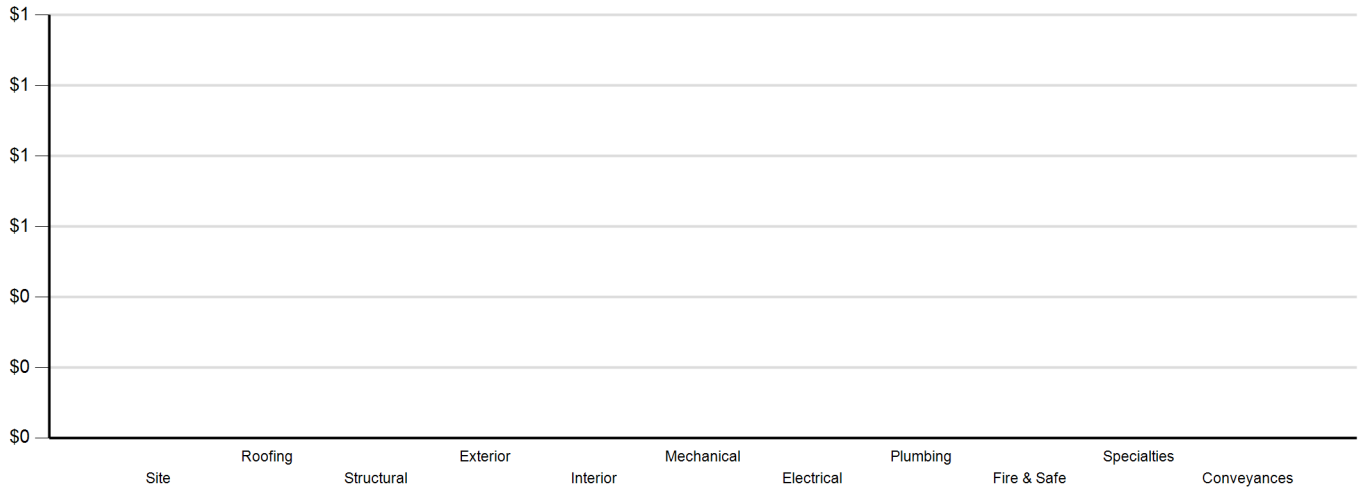


Figure 1: System Deficiencies

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	\$0	\$440,068	\$440,068
Mechanical	\$0	\$0	\$0	\$0	\$0	\$0
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	\$0	\$440,068	\$440,068

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	\$440,068	\$0	\$0	\$0	\$0	\$136,078	\$136,078	\$576,146
Mechanical	\$0	\$0	\$0	\$0	\$0	\$1,098,921	\$1,098,921	\$1,098,921
Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Plumbing	\$0	\$0	\$0	\$0	\$0	\$28,266	\$28,266	\$28,266
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$49,294	\$49,294	\$49,294
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	\$440,068	\$0	\$0	\$0	\$0	\$1,312,559	\$1,312,559	\$1,752,627

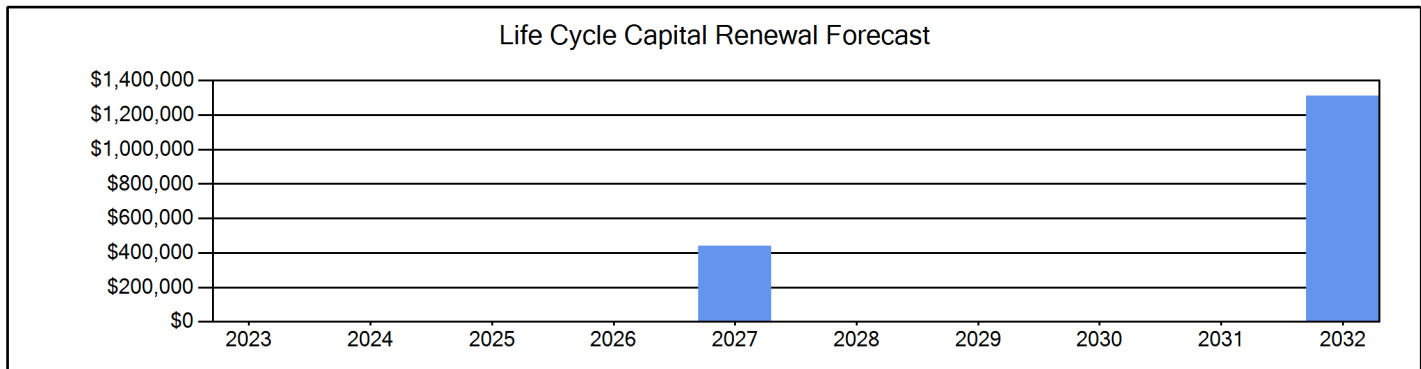


Figure 2: Ten Year Capital Renewal Forecast

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 \$11,397,102. For planning purposes, the total 5-year need at the Menchaca ES is \$440,068 (Life Cycle Years 1-5 plus the FCA deficiency cost). The Menchaca ES facility has a 5-year FCA of 96.14%.

5-Year Need vs. Replacement

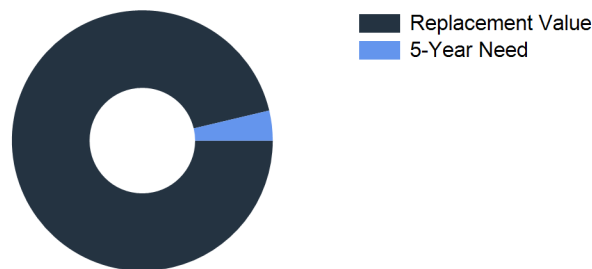


Figure 3: 5-Year FCA

There are no deficiencies for this campus

Buildings with no reported deficiencies

147A - Administration

147B - Classroom building

147C - Cafeteria/Gym

Menchaca ES - Life Cycle Summary Yrs 1-10

Building: 147A - Administration

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	7,816	SF	\$35,023	5
Carpeting	Carpet	5,821	SF	\$73,695	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	6,652	SF	\$22,462	10
Suspended Plaster and	Painted ceilings	416	SF	\$866	10
Sub Total for System		4	items	\$132,046	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	8,315	SF	\$22,427	10
Sub Total for System		1	items	\$22,427	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 120 gallon	1	Ea.	\$5,719	10
Sub Total for System		1	items	\$5,719	

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		1	items	\$49,294	
Sub Total for Building 147A - Administration		7	items	\$209,487	

Building: 147B - Classroom building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	44,977	SF	\$201,539	5
Carpeting	Carpet	5,622	SF	\$71,175	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	22,488	SF	\$75,938	10
Suspended Plaster and	Painted ceilings	11,244	SF	\$23,417	10
Sub Total for System		4	items	\$372,068	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	56,221	SF	\$151,641	10
Central Cooling	Chiller - Outdoor Air Cooled (300 Tons)	2	Ea.	\$551,435	10
Other HVAC Distribution Systems	VFD (20 HP)	4	Ea.	\$35,269	10
Other HVAC Distribution Systems	VFD (15 HP)	1	Ea.	\$7,559	10
Sub Total for System		4	items	\$745,903	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 66 gallon	4	Ea.	\$16,163	10
Sub Total for System		1	items	\$16,163	
Sub Total for Building 147B - Classroom building		9	items	\$1,134,134	

Building: 147C - Cafeteria/Gym

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	13,086	SF	\$58,636	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	2,454	SF	\$8,285	10
Suspended Plaster and	Painted ceilings	2,454	SF	\$5,110	10
Sub Total for System		3	items	\$72,030	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heat Generation	Boiler - Electric (1515 MBH)	2	Ea.	\$121,609	10

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heating System Supplementary Components	Controls - DDC (Bldg,SF)	16,357	SF	\$44,118	10
Other HVAC Distribution Systems	VFD (20 HP)	1	Ea.	\$8,817	10
Other HVAC Distribution Systems	VFD (15 HP)	2	Ea.	\$15,117	10
Other HVAC Distribution Systems	VFD (20 HP)	3	Ea.	\$26,452	10
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)	2	Ea.	\$8,626	10
Facility Hydronic Distribution	Pump- 25HP (Ea.)	5	Ea.	\$71,907	10
Facility Hydronic Distribution	Pump- 10HP (Ea.)	1	Ea.	\$11,561	10
Exhaust Air	Kitchen Exhaust Hoods	2	Ea.	\$22,383	10
Note: Kitchen area was closed during assessment, quantity was deduced from the two exhaust fans on roof.					
		Sub Total for System		9 items	\$330,590

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 100 Gallon	1	Ea.	\$6,384	10
		Sub Total for System		1 items	\$6,384
		Sub Total for Building 147C - Cafeteria/Gym		13 items	\$409,004
		Total for: Menchaca ES		29 items	\$1,752,625

Supporting Photos

General Site Photos



Rooftop heating ventilation and air conditioning units



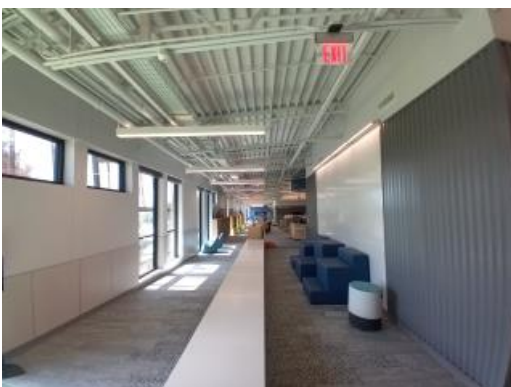
School administration



Main entrance



Library space



Main building hallway



Cafeteria space



Theater stage



Kitchen space



Gymnasium



Gymnasium roof structure