Memorial Healthcare

Facility Condition Report

2025

Prepared by AkitaBox

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Preface

This report serves as a sample to demonstrate the proper approach to facility analysis and highlight the proprietary software systems that aid in this analysis. Some data, narratives, and other analyses have been modified or simplified to protect client information and provide a concise report that is not overly extensive for a demonstrative review.

The primary objectives of the assessment include:

1. Identify and inventory the building's primary systems and components and determine their and the overall building conditions.
2. Identify and establish capital cost requirements and their associated risks of failure based on current conditions and potential impacts on operations.
3. Provide cost estimates for the necessary actions.
4. Prioritize the identified requirements.

Executive Summary

The assessment of Memorial Health Care, carried out by ABX between January 8th - January 15th, 2025, revealed that most facilities were in Excellent to Good condition. Specifically, all buildings, except for one, demonstrated strong structural integrity and system efficiency. However, the Clinic North building was identified as being in a deficient state. This facility has accrued a notable amount of deferred maintenance, significantly impacting its overall condition compared to its current replacement value. Given these findings, it is advisable to consider the reconstruction of Clinic North as a priority to ensure the health care services meet modern standards and requirements. Further details and a more in-depth analysis regarding this recommendation will be included later in the report.

Overview:

Summary of FCI Score: Portfolio View

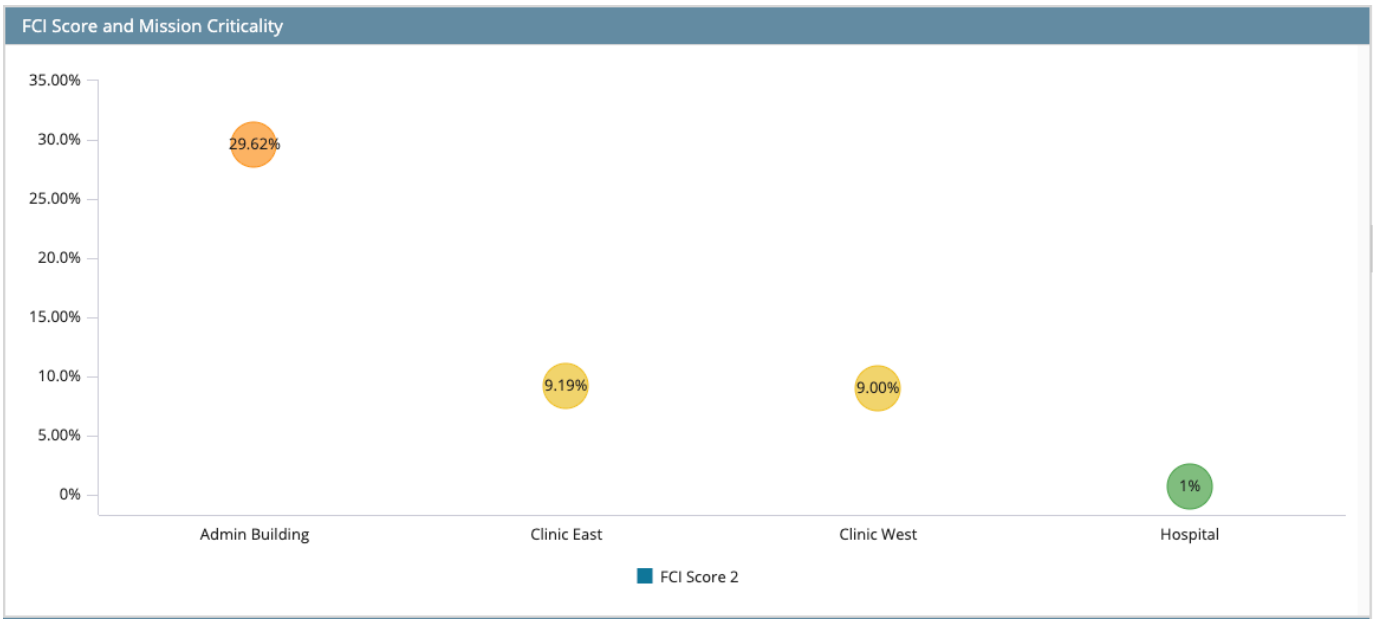
The Facility Condition Index (FCI) is a measure used to assess the condition of a building. It is calculated by taking the total cost of necessary repairs and renovations and dividing it by the building's current replacement value. Each building receives an FCI score that indicates its condition, categorized as follows:

- Excellent: less than 10%
- Good: 11% to 20%
- Fair: 21% to 40%
- Poor: 41% to 60%
- Deficient: greater than 60%

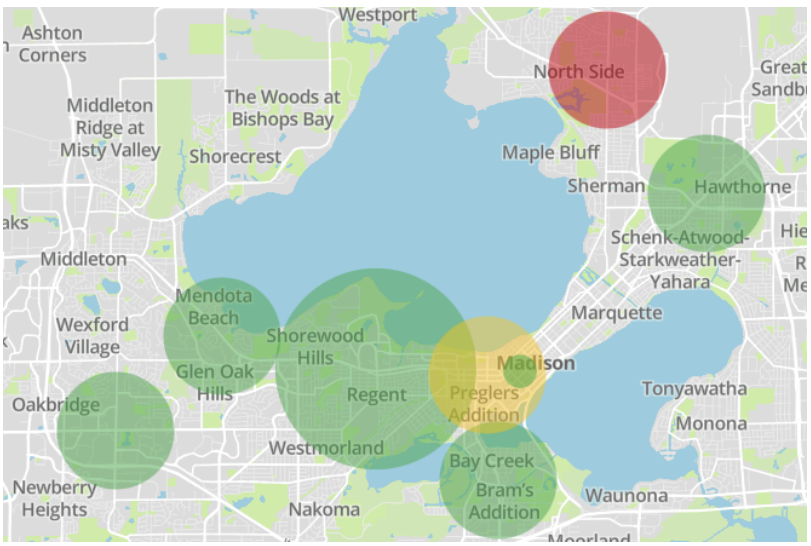
Note: Buildings with an FCI of Poor or Higher should be considered for reconstruction.

The "FCI Score and Mission Impact" graph shows buildings evaluated by their Mission Impact and Facility Condition Index (FCI) scores to assess current risk. FCI scores are percentages, and the size of each building's icon indicates its Mission Impact: smaller circles mean lower ratings, while larger circles signify higher ratings.

FCI Score and Mission Impact



FCI Score and Mission Impact Map



Overview of deferred cost plus current and next year recommended replacements - *inflation not accounted for*

Total Backlog Replacement Cost	This Years Replacement Cost	Next Years Replacement Cost
$6.27M	$517,196	$905,510

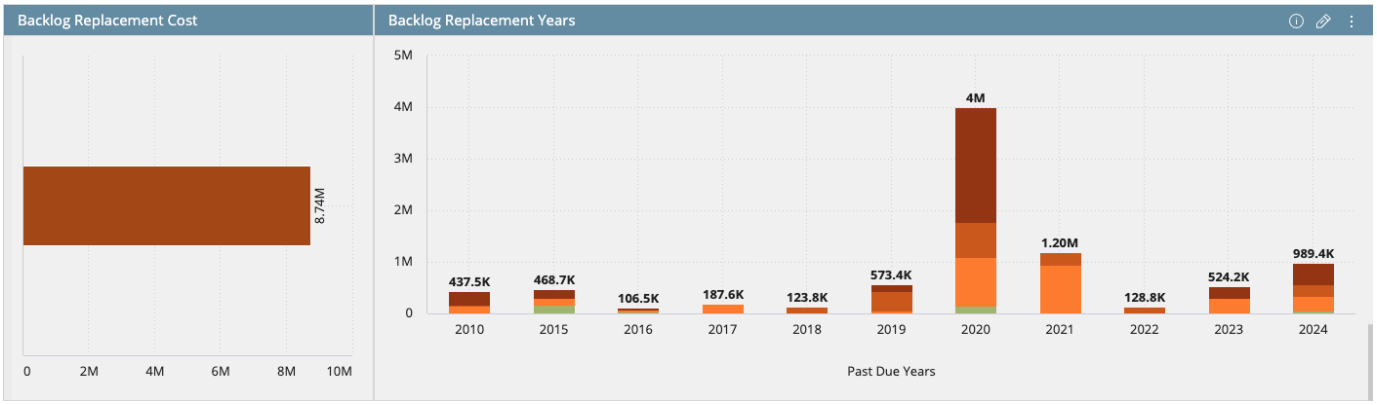
Summary of Deferred & Upcoming Capital Replacement Costs

This analysis is based on the conditions observed during the recent site visit. It outlines specific recommendations for corrective actions each discipline should undertake to address the identified issues. The document also includes a capital forecast detailing the deferred maintenance requirements and the imminent replacement needs that we anticipate soon. This information is important for effective planning and resource allocation moving forward.

Deferred Replacement Costs

The accompanying graph presents an overview of the total deferred capital replacement and renewal costs and the historical years during which various assets have been classified as exceeding their anticipated useful life across all evaluated buildings.

A significant portion, amounting to $1.13 million, of these deferred costs is primarily linked to Clinic North, with additional costs associated with the Outpatient buildings. HVAC systems, roofing, building enclosures, and backup generators are the primary contributors to these deferred costs, representing nearly all the expenses across the portfolio. Many HVAC, electrical, and roofing systems have surpassed their estimated useful life by over 20 years, highlighting a pressing need for attention and investment in these critical infrastructure components.

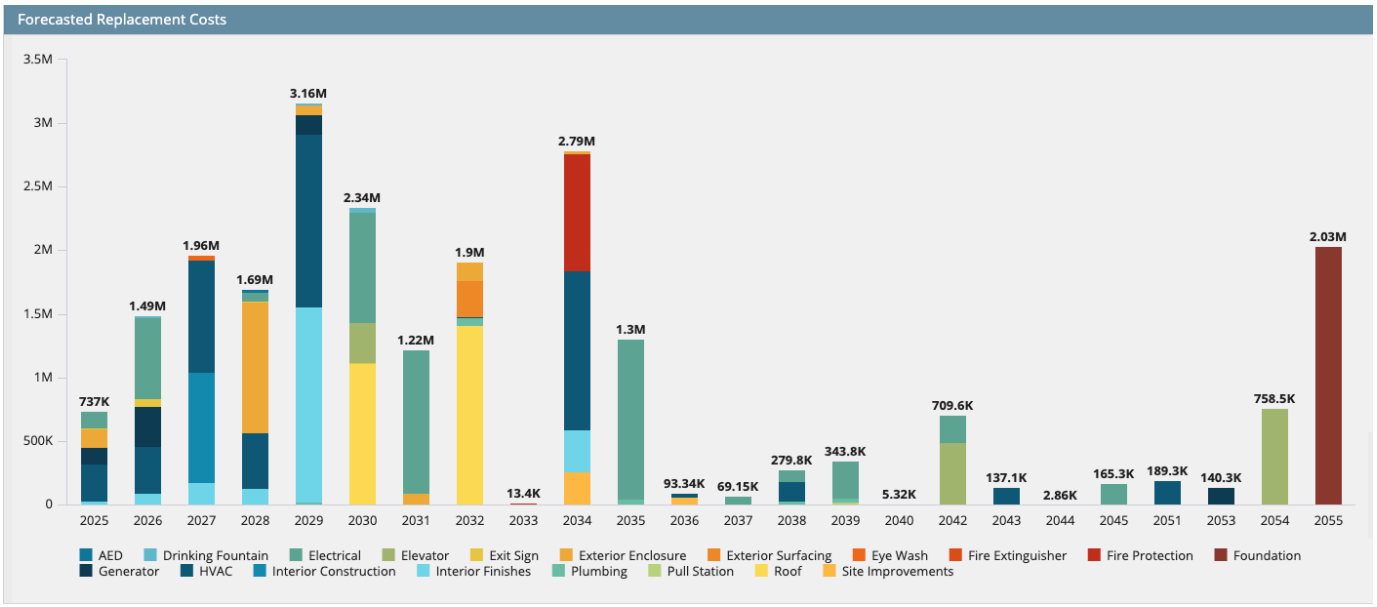


10-Year Capital Forecast

The graph below presents a detailed projection of the total costs associated with capital replacement and renewal over the next decade, considering each asset's evaluated remaining useful life. This projection assumes a consistent annual increase of 4% due to inflation.

Over the next ten years, the Memorial Health Care Center is forecasting a need for approximately $4,952,300, not including the deferred maintenance costs, to effectively manage capital replacements throughout its facilities. Among the more significant anticipated costs are replacing asphalt exterior surfacing scheduled for 2029 and critical updates to the roofing and HVAC systems planned for 2032 and 2033. These major expenditures are expected to account for nearly half of the projected costs.

Notably, replacement expenses are expected to remain minimal during the initial three to four years of this period. This lull presents a valuable opportunity for the organization to address any deferred maintenance issues and ensure that foundational work is completed before embarking on these larger-scale replacement projects in the latter part of the decade.



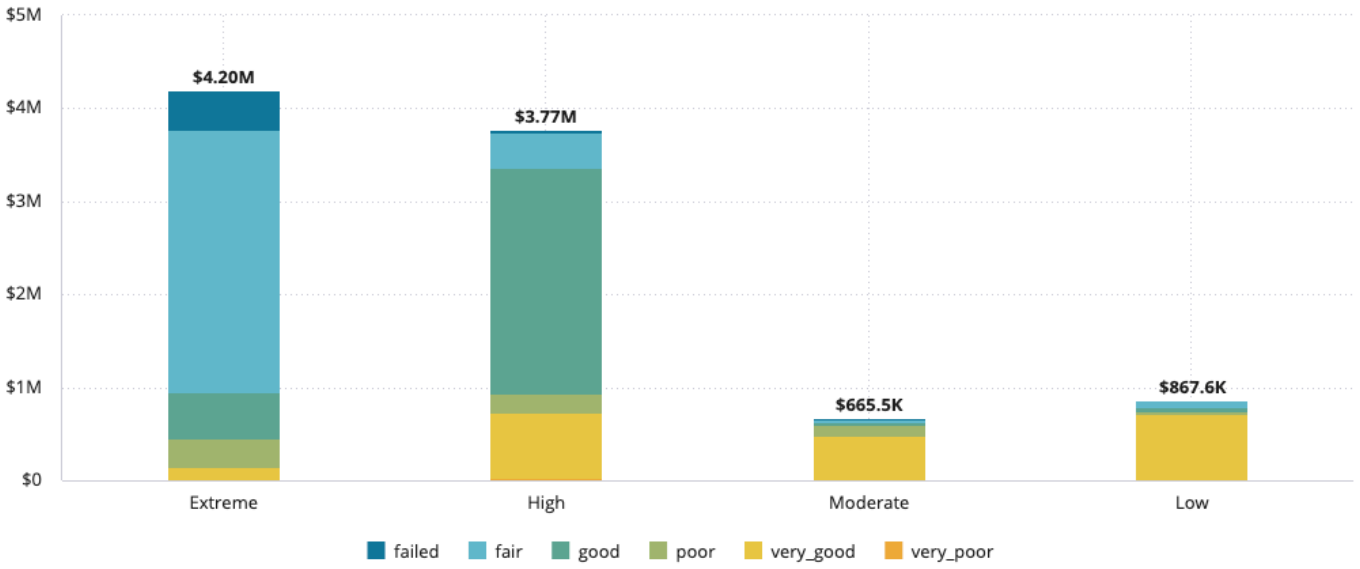
Assets and Current Condition + Mission Impact

Assessing Asset Condition in relation to its impact on mission objectives evaluates the potential risks associated with asset failure and how they could affect the overall mission. In planning for asset replacement, it is important to prioritize highly mission-important assets that show signs of decline in physical condition. These assets should be addressed first, as their failure could significantly hinder mission effectiveness.

Conversely, deferring replacement can be a viable strategy for assets with a lower impact on mission success and are currently rated in fair or better condition. This approach allows for strategically allocating resources to assets critical to mission continuity while ensuring that those with lower priority can remain in service without immediate action. Ultimately, this prioritization helps maintain operational efficiency and effectiveness while managing risks associated with asset performance.

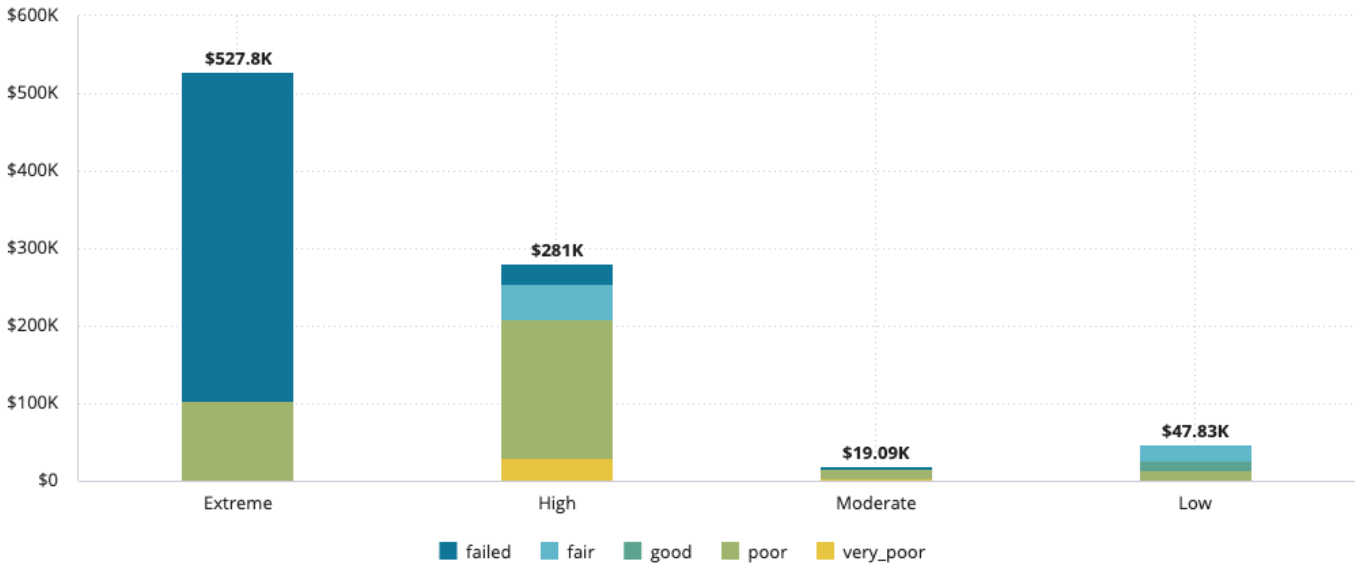
Condition vs. Mission Impact

The assets within the portfolio that are not classified as "deferred" predominantly demonstrate a significant or high mission impact and are currently assessed to be in fair condition or better. Except for the North Clinic Building, this positive status contributes to the portfolio's overall Facility Condition Index (FCI) scores. Given the operations and specific nature of the Memorial Health Care Center, it is essential to continually evaluate the asset's ongoing condition. Preventive maintenance, inspections, and assessments will be essential to ensure that there are no interruptions in vital services and operations while maintaining the highest standards of care and efficiency within the facility.



Deferred Condition vs. Mission Impact

The "deferred" assets within the portfolio predominantly demonstrate an extreme or high mission impact and are mostly assessed as failing, very poor, or poor. This metric indicates a high need for immediate attention to the deferred maintenance within the portfolio. During our inspection, when speaking with the Facilities Manager, they echoed what is shown in the graph below, stating that the facility has experienced many hours of critical operations lost due to system failures.



Prioritizing Deferred Capital Replacement

This prioritization schedule could assist if resources need to be allocated according to prioritization: assets classified as having extreme or high mission impact and a failing conditions should be prioritized first.

Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Exterior surfacing	Asphalt	failed	Extreme	2023	$249,750
Roofing	Built-Up Roofing	failed	Extreme	2024	$183,491
Plumbing	Sump Pump	failed	High	2021	$28,968
Interior Finishes	Wall Finishes	failed	High	2024	$165

The second-tier priority could be assets with extreme or high mission impact and very poor or poor conditions.

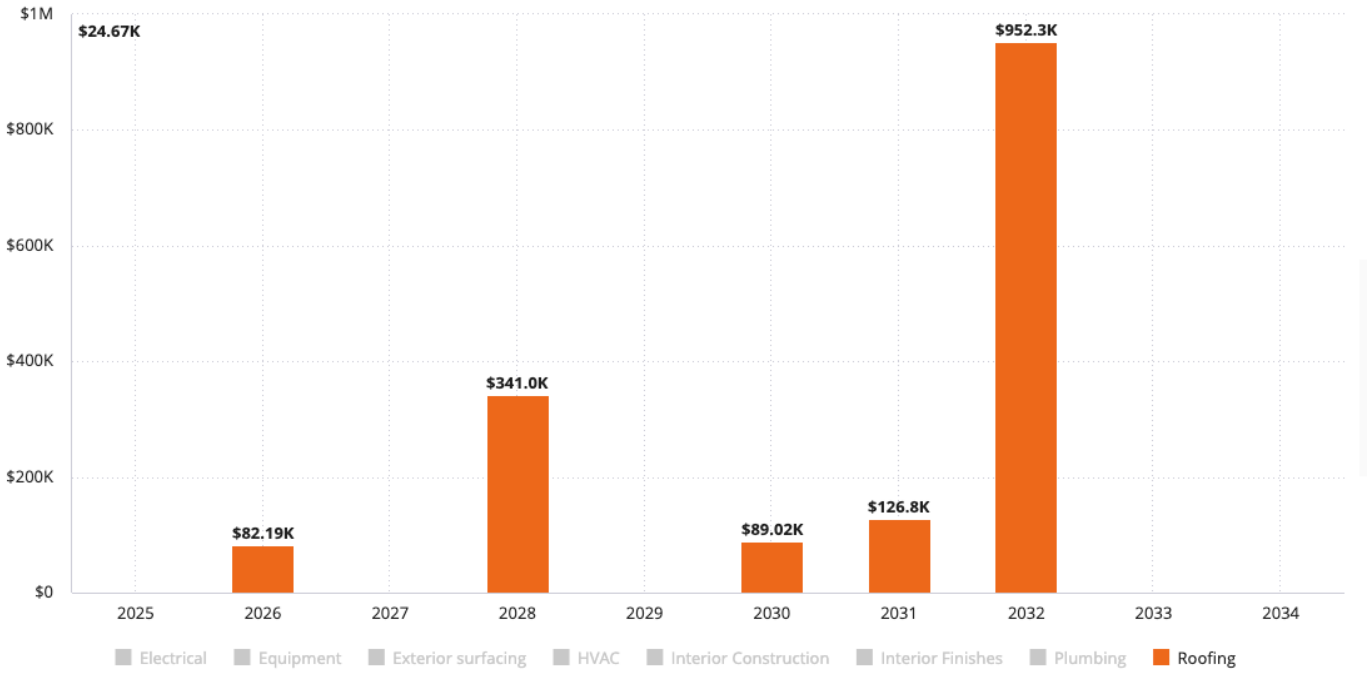
Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Roofing	Built-Up Roofing	poor	Extreme	2020	$17,420
Electrical	Transformer	poor	Extreme	2024	$10,881
Roofing	Other	poor	Extreme	2002	$185,814
HVAC	Rooftop Package Unit	poor	High	2021	$35,700
Electrical	N\A	very_poor	High	2020	$7,500
Plumbing	Booster Pump	very_poor	High	2024	$3,500
Electrical	Breaker Panel	poor	High	2002	$3,777
HVAC	Rooftop Package Unit	poor	High	2021	$12,471
HVAC	Rooftop Package Unit	poor	High	2021	$18,707
HVAC	Condensing Unit	poor	High	2024	$8,834
Exterior Enclosure	Exterior Doors	very_poor	High	2024	$8,323
HVAC	Condensing Unit	poor	High	2024	$8,834
HVAC	Condensing Unit	poor	High	2024	$8,834
Electrical	Breaker Panel	poor	High	2002	$3,777
Electrical	Breaker Panel	poor	High	2002	$3,777
Electrical	Breaker Panel	poor	High	2002	$3,777
Electrical	N\A	poor	High	1982	$30,894
Electrical	N\A	poor	High	2012	$30,894
HVAC	Rooftop Package Unit	poor	High	2021	$12,471
Electrical	Breaker Panel	very_poor	High	2017	$7,554
Electrical	Breaker Panel	very_poor	High	2017	$7,554
Generator	N\A	poor	High	2024	$14,500
HVAC	Rooftop Package Unit	poor	High	2021	$35,700
Electrical	Panel	poor	High	2014	$4,999

The third-tier priority could be assets with moderate impact but failing or in poor condition, as well as assets with high impact in fair conditions. This process can be progressively repeated.

Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Plumbing	Gas Water Heater	very_poor	Moderate	2020	$3,743
Exterior surfacing	Concrete	failed	Moderate	2004	$7,500
HVAC	Package Unit	poor	Moderate	2024	$12,471

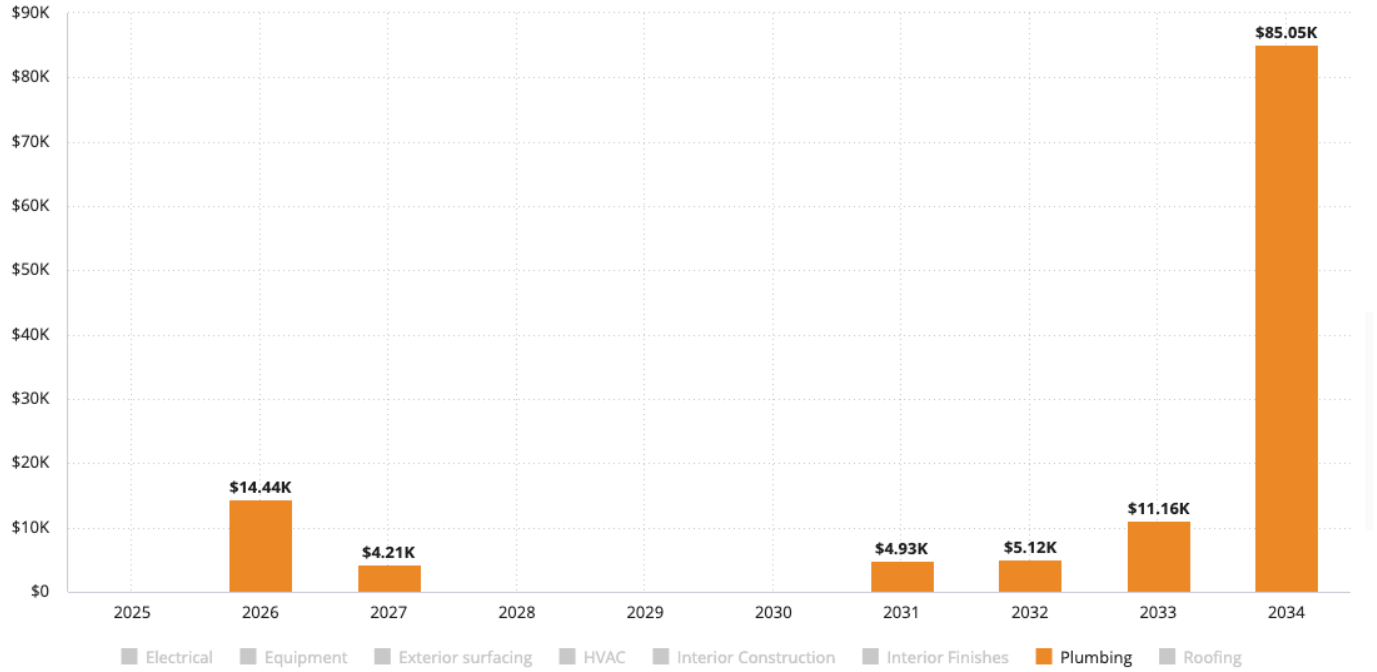
Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Electrical	Breaker Panel	fair	High	2024	$9,442
Electrical	Breaker Panel	fair	High	2023	$15,108
Generator	N\A	fair	High	2020	$14,500
Electrical	Breaker Panel	fair	High	2020	$1,577
Electrical	Breaker Panel	fair	High	2024	$9,442

Roofing: Remaining Life



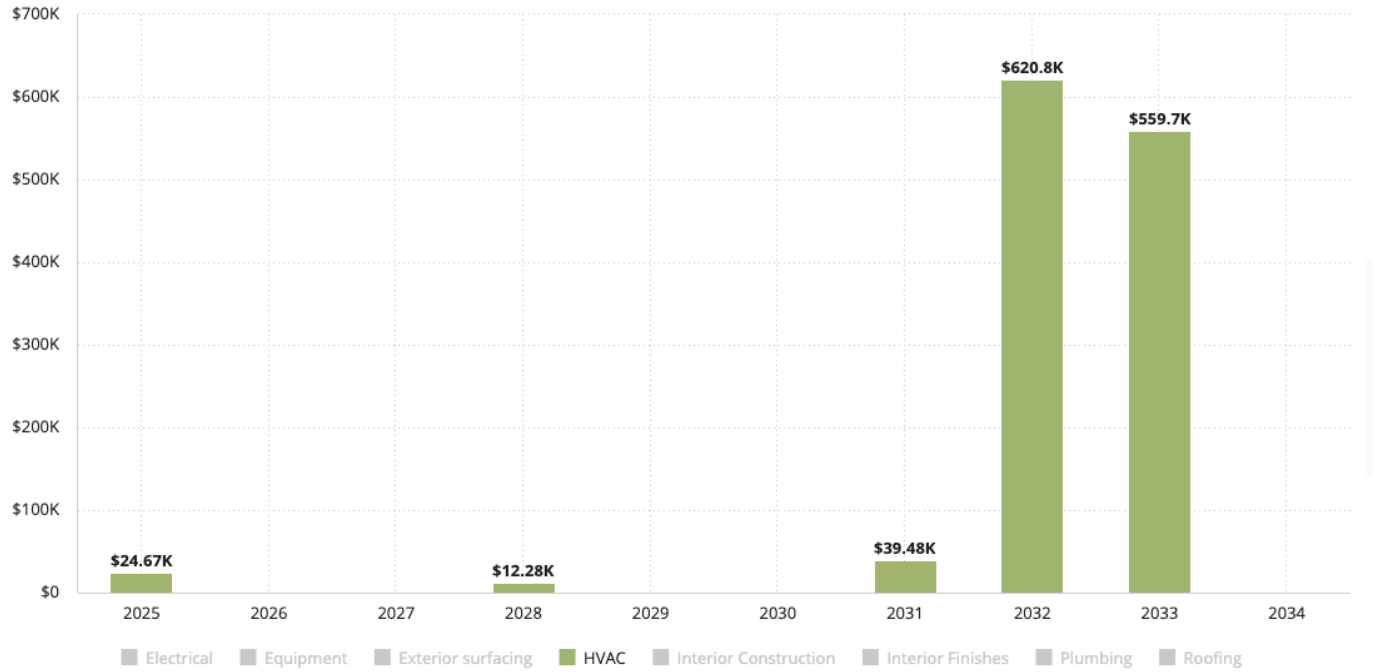
Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Roofing	Roofing	fair	Extreme	2032	$695,862
Roofing	Shingle	fair	Extreme	2038	$40,186
Roofing	Other	poor	Extreme	2002	$185,814
Roofing	Built-Up Roofing	poor	Extreme	2020	$17,420
Roofing	Clay	fair	Extreme	2030	$70,351
Roofing	Single ply	fair	Extreme	2028	$163,946
Roofing	Single ply	fair	Extreme	2028	$127,514
Roofing	Built-Up Roofing	fair	Extreme	2038	$23,226
Roofing	Shingle	good	Extreme	2046	$61,376
Roofing	Shingle	good	Extreme	2053	$61,376
Roofing	Shingle	fair	Extreme	2036	$36,533
Roofing	Shingle	poor	Extreme	2026	$75,989
Roofing	Metal	fair	Extreme	2045	$11,800
Roofing	Built-Up Roofing	poor	Extreme	2031	$96,391
Roofing	Shingle	very_good	Extreme	2054	$29,226
Roofing	Built-Up Roofing	fair	Extreme	2035	$30,194
Roofing	Shingle	fair	Extreme	2036	$70,144
Roofing	Shingle	fair	Extreme	N\A	$195,819
Roofing	Built-Up Roofing	failed	Extreme	2024	$183,491
Roofing	Built-Up Roofing	fair	Extreme	N\A	$160,264

Plumbing: Remaining Life



Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Plumbing	Gas Water Heater	very_good	High	2032	$3,743
Plumbing	Water Heater	poor	Moderate	2026	$13,350
Plumbing	Booster Pump	good	High	2034	$14,484
Plumbing	Pool Equipment	very_good	High	2039	$20,000
Plumbing	Booster Pump	good	High	2034	$21,726
Plumbing	Pool Equipment	poor	High	2034	$4,250
Plumbing	Pool Equipment	poor	High	2034	$4,250
Plumbing	Pool Equipment	poor	High	2034	$4,250
Plumbing	Pool Equipment	poor	High	2034	$4,250
Plumbing	Pool Equipment	poor	High	2034	$4,250
Plumbing	Booster Pump	very_poor	High	2024	$3,500
Plumbing	Gas Water Heater	very_good	High	2033	$3,743
Plumbing	Sump Pump	failed	High	2021	$28,968
Plumbing	Gas Water Heater	good	High	2033	$4,100
Plumbing	Water Heater	good	Moderate	2035	$8,900
Plumbing	Electric Water Heater	good	Low	2038	$479
Plumbing	Gas Water Heater	very_poor	Moderate	2020	$3,743
Plumbing	Gas Water Heater	fair	Moderate	2027	$3,743
Plumbing	Tankless Water Heater	good	Moderate	2031	$3,743
Plumbing	Water Heater	good	High	N\A	$4,100
Plumbing	Drinking Fountain	failed	Moderate	N\A	$1,125
Plumbing	Water Heater	fair	High	N\A	$4,100
Plumbing	Water Heater	fair	High	N\A	$4,100
Plumbing	N\A	fair	Extreme	N\A	$1,100
Plumbing	Water Heater	fair	High	N\A	$4,100

HVAC: Remaining Life



Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$18,500
HVAC	Furnace	very_good	High	2033	$18,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	HVAC - Controls & Instrumentation	good	High	2031	$12,000
HVAC	Boiler	very_good	High	2051	$60,688
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$18,500
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Air Curtains	poor	Low	2028	$3,500
HVAC	Air Curtains	poor	Low	2028	$3,500
HVAC	Air Curtains	poor	Low	2028	$3,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$18,500
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	HVAC - Controls & Instrumentation	good	High	2031	$8,000
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Furnace	very_good	High	2033	$9,500
HVAC	Furnace	very_good	High	2033	$9,500

General: Recommendations

As of the date of this report, the estimated cost to undertake the necessary deferred capital replacements is projected to be approximately $1.3 million. This amount reflects an assessment of the essential upgrades and repairs that must be addressed to ensure the facility's ongoing functionality and safety.

In addition, it is advisable to establish a contingency fund of around $250,000. This fund is intended to cover the owner's soft costs, including expenses such as project management, design fees, and any unforeseen costs that may arise during the construction process.

When the estimated construction costs are combined with the recommended contingency fund, the total projected expenditure for the entire project will amount to roughly $1.55 million. This total ensures that all financial aspects are accounted for.

Roofing ($386,725)

Staff has reported ongoing roof leaks in both the north and south sections of the North Clinic Building. Two particular areas raise concerns: the flat section above the Day Room, which shows water stains indicating bonding issues, and the junction where the dormer roofs meet the main built-up roof. It seems that this area received a coating approximately ten years ago, but it is now discolored and exhibiting severe deterioration. Both issues were noted during the field visit.

Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
Roofing	Other	poor	Extreme	2002	$185,814
Roofing	Built-Up Roofing	failed	Extreme	2024	$183,491
Roofing	Built-Up Roofing	poor	Extreme	2020	$17,420

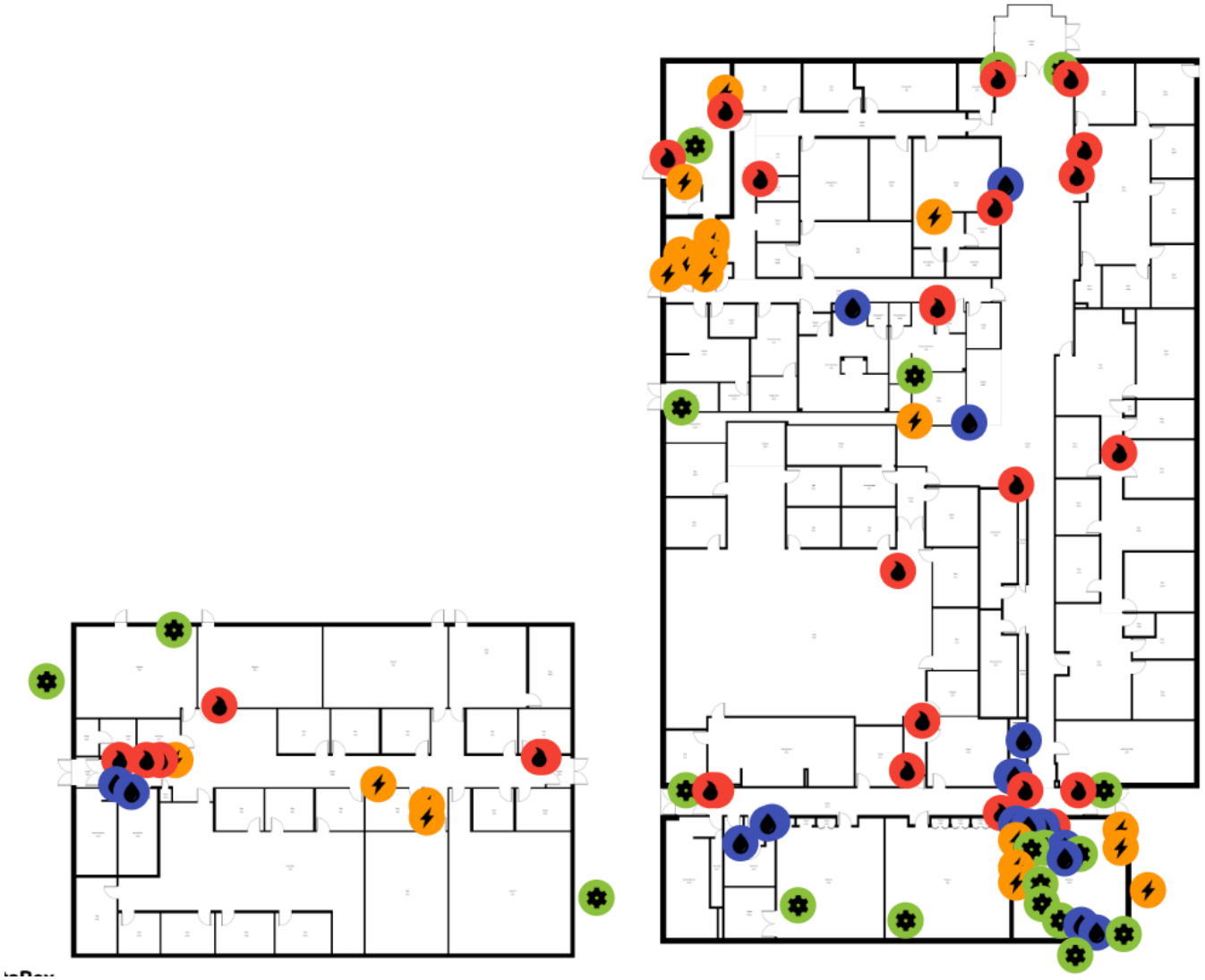
HVAC ($888,484)

During our inspection, we found that sixteen HVAC units had exceeded their estimated useful life and showed clear deterioration. Some units were twenty to thirty years past this lifespan and appeared to have undergone multiple rebuilds. Occupants in the North Clinic Building also reported ongoing issues with room temperatures; the Facilities Manager mentioned instances where parts of the building lacked heating or cooling due to system failures.

Replacing these units will necessitate closing off the east section of the parking lot for one or two days, as the twelve rooftop units must be removed with a crane and replaced with new units. The crane work costs are included in the relevant units' expenses.

Category	Type	Condition	Mission Impact	Estimated Replacement	Cost
HVAC	Condensing Unit	poor	High	2024	$8,834
HVAC	Rooftop Package Unit	poor	High	2021	$12,471
HVAC	Condensing Unit	poor	High	2024	$8,834
HVAC	Rooftop Package Unit	poor	High	2021	$35,700
HVAC	Rooftop Package Unit	poor	High	2021	$35,700
HVAC	Rooftop Package Unit	poor	High	2021	$12,471
HVAC	Condensing Unit	poor	High	2024	$8,834
HVAC	Rooftop Package Unit	poor	High	2021	$18,707
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Furnace	poor	Low	1992	$11,200
HVAC	Electric Unit Heater	very_poor	Low	1982	$975
HVAC	Furnace	poor	Low	1992	$38,000
HVAC	Air Handling Unit	good	Low	2002	$4,600
HVAC	Package Unit	poor	Moderate	2024	$12,471

Floorplan - North Clinic Building



Assets

AC-1 - Administrative Services

Jan 11, 2023

Category: *D30 - HVAC*	**Size:** *10,000 BTU*
Type: *Air Conditioner*	**Installation Date:** *11/2020*
Manufacturer: *Carrier*	**Observed Remaining Life:** *12*
Model: *Not Accessible*	**Condition:** *Good*
Serial Number: *5654884*	**Cost:** *$6500*

AHU - Administrative Services

Jan 11, 2023

Category: *D30 - HVAC*	**Size:** *50 Ton*
Type: *Air Handling*	**Installation Date:** *05/2010*
Manufacturer: *Carrier*	**Observed Remaining Life:** *10*
Model: *D5458995*	**Condition:** *Fair*
Serial Number: *2156515*	**Cost:** *$1777.5*

AED-01 - Clinic North

Jan 11, 2023

Category: *D40 - Fire Protection*	**Size:** *100 Gal*
Type: *Pump*	**Installation Date:** *10/2010*
Manufacturer: *HeartSine*	**Observed Remaining Life:** *6*
Model: *ABC123*	**Condition:** *Fair*
Serial Number: *7894522*	**Cost:** *$54150*

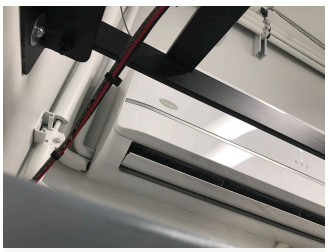
ACP-01 - Clinic North

Jan 11, 2023

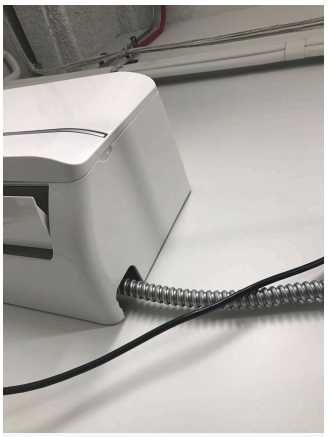
Category: *D30 - HVAC*	**Size:** *50 Gal*
Type: *Pump*	**Installation Date:** *11/2000*
Manufacturer: *CANADA*	**Observed Remaining Life:** *8*
Model: *ABC123*	**Condition:** *Poor*
Serial Number: *19280527*	**Cost:** *$50710*

AC-1 - Administrative Services

Jan 11, 2023



Jan 11, 2023



Jan 11, 2023

Jan 11, 2023

Category: *D30 - HVAC*	**Size:**
Type: *Air Conditioner*	**Installation Date:**
Manufacturer: *Carrier*	**Observed Remaining Life:** *12*
Model: *Not Accessible*	**Condition:**
Serial Number:	**Cost:** *$51700*