RECAPP Facility Evaluation Report

Alberta Health Services-Edmonton

Alberta Hospital Edmonton Rachel H Young Pavilion 8

B1022G

Edmonton

Report run on: March 12, 2014 12:49 PM

Facility Details

Building Name: Alberta Hospital Edmonton F
Address: 17480 Fort Road, P. O. Box
Location: Edmonton

Building Id: B1022G
Gross Area (sq. m): 6,382.00
Replacement Cost: $26,587,319
Construction Year: 1950

Evaluation Details

Evaluation Company: Bacz Engineering Ltd.
Evaluation Date: November 6 2013
Evaluator Name: Eric Lumley

Total Maintenance Events Next 5 years: **$5,686,300**
5 year Facility Condition Index (FCI): **21.39%**

General Summary:

The Rachel H Young Pavilion (Building 8) - (B1022G) was originally built in 1950, however extensive renovations were conducted in 1968 & 1977. In 2001 some of the patient rooms & offices on the second floor were renovated. The facility is predominately a two storey structure with a partial basement below the north and east wings of the building and an accessible crawl space below the south wing. The building is linked via an enclosed walkway to the Laundry & Food services building to the south and to Building #12 to the East. The building has a gross area of approximately 6382 Square metres. The building provides Adult Psychiatry Rehabilitation Patient Care. A Bistro is provided on the main floor East wing.

Structural Summary:

The foundation and substructure is a combination of reinforced concrete foundation walls, reinforced concrete pad and strip foundations. Concrete slabs-on-grade in basement. The building has a one-way cast-in-place reinforced concrete slab at the floor level. The roof structure has a combination of a wood and/or metal deck on open web steel joists, positively sloped to drains.

Overall the structural elements are in acceptable condition

Envelope Summary:

The exterior walls have a cement plaster exterior wall finish (Stucco). The windows are typically punched aluminum framed double glazed fixed units. Aluminum framed doors with full glazed panels & commercial grade hardware are located at the main entrance. The entrance doors to the second floor patio includes aluminum slider doors with full glazed window sections. The secondary entrances have insulated hollow metal exterior doors in pressed steel frames are single leaf, complete with closures, panics, thresholds, push plates pull handles, locksets and weatherstripping. The roof has a conventional 4-ply built up roofing system with gravel ballast over a wood and/or steel deck.

Overall, the building envelope is in acceptable condition.

Recommendations:
-Repair exterior stucco wall assembly
-Replace sealant around all exterior windows & doors
-Repaint all exterior stucco walls at stairwells
-Replace broken hardware and repaint exterior doors (8 doors)
-Replace Built-up roof assembly - Sections A to F (Area - 2165m2)

Interior Summary:

Sheet Vinyl flooring is located throughout the majority of the corridors and patient rooms. Carpeting was observed throughout the administration areas including the staff lounge area. Terrazzo flooring is located in the link corridor. Ceramic tile flooring is located throughout the main floor Bistro and all washroom & Tub areas. VCT flooring is located in the renovated offices on the second floor. The exit stairwells and all utility rooms throughout the basement have either a sealed or painted concrete floor finish. The interior walls are either painted concrete block, plaster or gypsum board walls on metal frame. The majority of the ceilings in the corridors, lounge areas & patient rooms consist of a sprayed textured plaster finish. The structure was exposed in the storage and utility areas throughout the basement. The patient rooms & office areas have solid core wood doors, single or double leaf, clear stained on pressed steel frames, painted. The utility areas, including the basement have painted steel doors & frames. Doors are labeled at fire separation locations

Overall, the interior finishes are in acceptable condition.

Recommendations:
-Replace all damaged doors & hardware

-Replace or refurbish the existing traction elevator with a hydraulic elevator

Mechanical Summary:

Heating in the building is provided by steam which is supplied from the central power plant on the site.
Steam piping distribution inside the building to perimeter heating units, AS-5&6 steam coils and humidifiers serving AS-1 to AS-4.
Hot water glycol distribution to AS-1 to AS-4 heating coils, circulation through two in-line pumps serving two steam to glycol heat exchangers.
Cooling for the building is provided by direct expansion type cooling systems for five of the air handling units (AS1 through AS5). The cooling systems for the four main rooftop air handling units (AS1 through AS4) are completely contained within the air handling units and the cooling system for air handling unit AS5 consists of an evaporator coil in the air handling unit and an associated rooftop compressor/condenser unit.
Building ventilation is provided by six air handling units (AS1 through AS6). Exhaust air is provided by exhaust fans (most roof or wall mounted).
Domestic hot water system is served from central power plant through service tunnel.
Plumbing fixtures in the building include janitor mop sinks, general purpose sink, lavatories, toilets, shower stalls, bathtubs, and a urinal.
Building is partially sprinklered (north wing, basement, and rooms 232 and 233). Additional fire protection is provided by standard fire hose cabinets and by fire extinguishers.
Controls are combination of pneumatic and direct digital control systems.

Major problem areas in this building include the steam heating system (steam and condensate piping and related components), the domestic water distribution systems, and the main air handling unit cooling systems (air handling units AS1 through AS4). Overall, the building mechanical systems and components are in marginal condition.

Electrical Summary:

There are three single phase 167kVA, 2400-120/240V oil filled transformers in the building, and located in the transformer vault. The main switchboard is rated 2000A, 120/208V and has molded case branch breakers.

The mechanical loads within the building are fed from individual motor starters.

Emergency lighting for the building is provided from fixtures connected to the emergency panels and supplementary emergency lighting battery units.

The lighting is typically fluorescent lighting fixtures completed with T12 lamps and electromagnetic magnetic ballasts.

The overall rating for for the Rachel Young Building (building No. 8) shall be "Acceptable".

Rating Guide	
Condition Rating	**Performance**
1 - Critical	Unsafe, high risk of injury or critical system failure.
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.
5 - Good	Meets all present requirements. No deficiencies.
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.

S1 STRUCTURAL

A1010 Standard Foundations*

The foundation and substructure is a combination of reinforced concrete foundation walls, reinforced concrete pad and strip foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

A1030 Slab on Grade*

Reinforced concrete slabs on grade throughout the basement area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

A2020 Basement Walls (& Crawl Space)*

The basement walls consist of a cast in place concrete walls. Infill clay tile walls (plastered) are located in the basement corridors & utility rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)*

Cast-in-place reinforced concrete columns and beams with a concrete one-way floor slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.02 Structural Interior Walls Supporting Floors (or Roof)*

Structural reinforced concrete block walls, concrete columns & concrete beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.06 Ramps: Exterior*

A concrete ramp with painted steel handrails is located at the south-east stairwell exit to the outdoor courtyard.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.07 Exterior Stairs*

Poured in place concrete stairs are located at the stairwell exits.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.09 Floor Construction Fireproofing*

Cast in place concrete floors provide fireproofing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1010.10 Floor Construction Firestopping*

Fire-stopping appears to have been provided in the original construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B1020.01 Roof Structural Frame*

The roof structure has a combination of a wood and/or metal deck on open web steel joists, positively sloped to drains.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

S2 ENVELOPE

B2010.01.08 Cement Plaster (Stucco): Ext. Wall*

The exterior walls have a cement plaster on a sub-base coat with metal lath, insulation and exterior board fastened to the original exterior masonry walls. A smooth stucco panel assembly is located at the stairwell locations. Painted concrete bands are located around each windows

Rating	Installed	Design Life	Updated
2 - Poor	1977	0	MAR-14

Event: Repair exterior stucco wall assembly.-(B.O.E. 3282 sq.m.)

Concern:
Several sections of the exterior finish have cracked and spalled off the face of the assembly.

Recommendation:
Repair exterior stucco wall assembly where applicable.

Type	Year	Cost	Priority
Repair	2014	$240,000	Medium

Updated: MAR-14

B2010.01.09 Expansion Control: Ext. Wall*

Expansion and control joints are located throughout the exterior stucco wall assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

B2010.01.11 Joint Sealers (caulking): Ext. Wall**

Caulking has exceeded it's design life and is brittle.

Rating	Installed	Design Life	Updated
3 - Marginal	1977	20	MAR-14

Event: Replace caulking to all exterior windows & doors.- (B.O.E. 718 sq. m..)

Concern:
Caulking is missing and brittle around several windows and doors.

Recommendation:
Replace caulking around all exterior windows & doors

Type	Year	Cost	Priority
Failure Replacement	2014	$21,000	Low

Updated: MAR-14

B2010.01.13 Paints (& Stains): Ext. Wall**

The exterior walls at the stairwells have a painted smooth stucco finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1977	15	MAR-14

Event: Repaint all exterior stucco walls at stairwells.- (B.O.E.348 sq.m.)

Concern:
The paint finish on the stucco walls at all stairwell entrances is worn and faded and it has exceeded it's design life.

Recommendation:
Repaint all exterior stucco walls at stairwells

Type	Year	Cost	Priority
Repair	2015	$8,000	Low

Updated: MAR-14

B2010.02.03 Masonry Units: Ext. Wall Const.*

The infill walls have plastered clay block back-up whythe with rigid insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B2010.05 Parapets*

The parapets have metal cap flashings with prefinished and galvanized flashings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

B2010.09 Exterior Soffits*

The exterior soffit at the entrance has a stucco finish on plywood sheathing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

B2020.01.01.02 Aluminum Windows (Glass & Frame)**

The windows are aluminum framed double glazed fixed units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	40	MAR-14

Event: Replace Aluminum Windows.- (B.O.E. 151 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$151,000	Unassigned

Updated: MAR-14

B2020.03 Glazed Curtain Wall**

Glazed curtain wall to patio area over the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	40	MAR-14

Event: Replace Glazed Curtain Wall.- (B.O.E. 12 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$12,000	Unassigned

Updated: MAR-14

B2020.04 Other Exterior Windows* - Glass Block

Glass block is located in each stairwell.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum framed doors with full glazed panels & commercial grade hardware are located at the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	MAR-14

Event: Replace Aluminum-Framed Storefronts Doors.- (B.O.E. 4 doors)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$19,000	Unassigned

Updated: MAR-14

B2030.02 Exterior Utility Doors**

The secondary entrances/exits have insulated hollow metal exterior doors in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	40	MAR-14

Event: Replace exterior utility doors and hardware.- (B.O.E. 7 doors.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$11,500	Unassigned

Updated: MAR-14

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)**

The roof has a conventional 4-ply built up roofing system with gravel ballast over a wood and/or steel deck.

Rating	Installed	Design Life	Updated
3 - Marginal	1977	25	MAR-14

Event: Replace Built-up Roof with SBS roofing.- (B.O.E. 2320 sq.m.)

Concern:
Evidence of several repairs were observed. Patching is done on a regular basis. Water has penetrated the roof assembly in several locations, specifically around where the mechanical equipment is located.
Recommendation:
Replace roof.

Type	Year	Cost	Priority
Failure Replacement	2014	$423,000	Medium

Updated: MAR-14

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)**

Section of SBS roofing at east connection to link.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	MAR-14

Event: Replace SBS roofing.- (B.O.E. 125 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$23,000	Unassigned

Updated: MAR-14

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Poured concrete walls at elevator shafts, corridors and stairwells. Concrete block walls are located throughout the utility area i.e. Patient rooms, mechanical rooms, large storage areas, workshops, locker rooms and lower level washrooms. Plastered clay tile walls are located throughout the patient areas, administration areas and ancillary spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C1010.05 Interior Windows*

Interior metal framed windows are located throughout various corridors and viewing areas in the building. The windows have either a tempered or GWG insert.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1010.06 Interior Glazed Partitions and Storefronts*

The nurse stations have frameless glazed panels

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1010.07 Interior Partition Firestopping*

Fire-stopping appears to have been provided in the original construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C1020.01 Interior Swinging Doors (& Hardware)*

The patient rooms & office areas have solid core wood doors, single and double leaf, clear stained in painted pressed steel frames. The utility areas, including the basement have painted steel doors & frames. Doors are labeled at fire separation locations.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	0	MAR-14

Event: Replace interior doors.- (B.O.E. 300 doors)

Concern:
Interior doors are deteriorated.
Recommendation:
Replace interior doors.

Type	Year	Cost	Priority
Failure Replacement	2014	$356,000	Low

Updated: MAR-14

C1020.03 Interior Fire Doors*

Fire rated hollow metal rated doors, single and double leaf on rated pressed steel frames - painted. Doors are equipped with closures, latch or locksets, weather-stripping and panic sets, as required.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C1020.04 Interior Sliding and Folding Doors*

Aluminum accordian doors are located in the kitchen areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1030.05 Wall and Corner Guards*

Stainless steel & vinyl corner guards, 1200mm high are located throughout the service and public circulation areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1030.06 Handrails*

Rubber and/or wood wall mounted guard rails are located throughout the main circulation corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1030.08 Interior Identifying Devices*

Signage panels are located above & on the interior doors & attached to the corridor walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1030.10 Lockers**

Full height steel lockers are provided in the men's & women's locker /change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	MAR-14

Event: Replace Prefinished Metal Lockers.- (B.O.E. 30 lockers)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$15,000	Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

Heavy duty large steel storage shelving is located in the storage and house keeping area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C1030.14 Toilet, Bath, and Laundry Accessories*

The washrooms are equipped with paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors. Stainless steel hand bars are located throughout most of the showers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C2010 Stair Construction*

The exit stairwells have poured in place concrete stairs. The stair to the roof is framed in steel with open grate treads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C2020.08 Stair Railings and Balustrades*

All stairwells have pipe railings and balustrades (painted).

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C2020.11 Other Stair Finishes*

The concrete risers and treads are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C3010.01 Concrete Wall Finishes (Unpainted)*

The poured concrete walls throughout several utility rooms and crawl space are unfinished.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C3010.06 Tile Wall Finishes**

Glazed ceramic tiles are located throughout the patient room washrooms and kitchen area

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	40	MAR-14

Event: Replace ceramic wall tile.- (B.O.E. 605 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$155,000	Unassigned

Updated: MAR-14

C3010.11 Interior Wall Painting*

Concrete block, plaster wall surfaces and gypsum board walls are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C3010.12 Wall Coverings*

Wallpaper on several corridor and patient rooms walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

C3020.01.02 Painted Concrete Floor Finishes*

Concrete floors throughout the basement corridor, service spaces and mechanical rooms are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

C3020.02 Tile Floor Finishes**

The Bistro kitchen area,washrooms and tub rooms have a ceramic tile floor finish..

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	50	MAR-14

Event: Replace ceramic floor tile in the Bistro and washroom areas.- (B.O.E. 230 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$41,000	Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring**

VCT flooring is located in the office areas & the Bistro's dining room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	MAR-14

Event: Replace VCT flooring in the offices & Bistro area.- (B.O.E. 1025 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$53,000	Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring** - Sheet Vinyl

Sheet vinyl flooring is located throughout the majority of the corridors and patient rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	20	MAR-14

Event: Replace Sheet Vinyl flooring.- (B.O.E. 4545 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$364,000	Unassigned

Updated: MAR-14

C3020.08 Carpet Flooring**

Carpeting is located in isolated lounges and offices

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	15	MAR-14

Event: Replace Carpet Flooring.- (B.O.E. 250 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$13,000	Unassigned

Updated: MAR-14

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)**

A 2'x4' suspended acoustical tile ceiling grid is located in the renovated office areas and in the Bistro kitchen on the main floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	25	MAR-14

Event: Replace suspended acoustical tile ceiling.- (B.O.E. 465 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$22,000	Unassigned

Updated: MAR-14

C3030.07 Interior Ceiling Painting*

Painted plaster and/or gypsum ceilings with a sprayed textured finish are located throughout the corridors, patient rooms, patient lounge areas and in the main entrances. All exposed concrete structures in the service and utility areas have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

D1010.01.01 Electric Traction Passenger Elevators**

Otis geared traction elevator (elevator penthouse equipment location), unposted capacity, three stops (B-M-2)

Rating	Installed	Design Life	Updated
3 - Marginal	1950	30	MAR-14

Event: Refurbish the existing traction elevator. - (B.O.E. 1 elevator)

Concern:
The building elevator has poor reliability.
Recommendation:
Refurbish the existing traction elevator

Type	Year	Cost	Priority
Failure Replacement	2014	$141,000	High

Updated: MAR-14

S4 MECHANICAL

D2010.04 Sinks**

There are variety of sinks in the building, including double and single compartment stainless steel sinks and floor mounted mop sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 20 Sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$30,000	Unassigned

Updated: MAR-14

D2010.05 Showers**

Fiberglass shower stalls, including handicap accessible stalls with grab bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	MAR-14

Event: Replace 4 Showers.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$24,000	Unassigned

Updated: MAR-14

D2010.06 Bathtubs**

Fiberglass bathtubs.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	MAR-14

Event: Replace 3 Bathtubs.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$10,000	Unassigned

Updated: MAR-14

D2010.09 Other Plumbing Fixtures*

Emergency eyewash station located in the basement mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	0	MAR-14

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1978

WC - wall mounted vitreous china flush valve type toilets, floor mounted vitreous china tank type toilet and wall mounted vitreous china tank type toilets.
LV - counter mounted vitreous china lavatories, counter mounted enameled steel lavatories, wall mounted vitreous china lavatories, a wall mounted enameled steel lavatory, and a wall mounted plastic lavatory.
UR - wall mounted vitreous china flush valve type urinal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-14

Event: Replace 70 Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$110,000	Unassigned

Updated: MAR-14

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 2000

LV - lavatories are counter mounted vitreous china and counter mounted enameled steel type, wall mounted vitreous china lavatories, a wall mounted enameled steel lavatory, and a wall mounted plastic lavatory.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	35	MAR-14

Event: Replace 69 LAvatories.

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$104,000	Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper piping distribution serving domestic hot, cold and hot water recirculation systems.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	0	MAR-14

Event: Replace Domestic Piping System.- (BOE: 6382 sq.m.) GFA.

Concern:
Domestic water piping is corroded and fails frequently. The building domestic water is a yellow brown color after stagnant periods.
Recommendation:
Replace domestic water distribution system piping.

Type	Year	Cost	Priority
Failure Replacement	2014	$390,000	Medium

Updated: MAR-14

D2020.01.02 Valves: Domestic Water**

Isolation valves for fixtures and piping branches, as well as tempering valves (mixing valves) to limit domestic hot water temperatures.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	40	MAR-14

Event: Replace 400 Domestic Water Valves.

Concern:
Valves are corroded, scaling of the domestic piping.
Recommendation:
Replace domestic water distribution system valves.

Type	Year	Cost	Priority
Failure Replacement	2014	$80,000	Medium

Updated: MAR-14

D2020.02.02 Plumbing Pumps: Domestic Water**

Domestic hot water re-circulation pumps to maintain the domestic hot water loop at temperature (one for the south wing and one for the north wing).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	20	MAR-14

Event: Replace 2 Domestic Hot Water Pumps.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$4,000	Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

The water lines have fiberglass insulation with canvas covering in exposed areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D2030.01 Waste and Vent Piping*

The building sanitary drainage and vent systems serve the building floor drains and plumbing fixtures. Sanitary drainage and vent piping is generally copper in smaller diameters and cast iron in larger diameters. Some cast iron traps and horizontal runs of cast iron piping have been replaced.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D2030.02.04 Floor Drains*

Floor drains are used at various locations throughout the building, including the washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D2040.01 Rain Water Drainage Piping Systems*

Storm water drainage is via roof drains and internal drainage piping (cast iron).

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D2040.02.04 Roof Drains*

Storm water drainage is via roof drains and internal drainage piping. The roof drains are equipped with strainers (some metal and some plastic).

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D3030.06.01 Refrigeration Compressors** - Morgue Refrigeration Units

There are two refrigeration systems for the morgue body storage cabinet .
The refrigeration systems include compressor units with integral air cooled condensers.
R22 refrigerant.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	25	MAR-14

Event: Replace 2 Compressors.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$17,000	Unassigned

Updated: MAR-14

D3030.06.02 Refrigerant Condensing Units**

Rooftop compressor/condenser unit for the direct expansion type cooling coil in air handling unit AS5.

Rating	Installed	Design Life	Updated
5 - Good	2004	25	MAR-14

Event: Replace 1 Condenser.

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$25,000	Unassigned

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution** -1968

AS-5 &6 air handling units are indoor type complete with supply fan, steam heating coil, direct expansion type cooling coil.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-14

Event: Replace 2 Air Handling Units.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$165,000	Unassigned

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution** -1978

AS-1 to AS-4: Climate Master FLMR series packaged roof top units complete with O/A , R/A, E/A mix. dampers, glycol heating coils, DX cooling, supply air fan, return air fan, bag filters. Units are located on the south, north and centre wings.
AS-1&2: 7500 lps airflow.
AS-3&4: 4200 lps airflow.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	30	MAR-14

Event: Replace 4 Air Handling Units.

Concern:
Direct expansion cooling systems for the air handling units are deteriorating and external water sprays on the condenser coils are used to prevent the units from overheating and shutting down.
Rooftop air handling units exhibit significant corrosion of their metal panel housings.
Recommendation:
Replace four main air handling units.

Type	Year	Cost	Priority
Failure Replacement	2014	$500,000	Medium

Updated: MAR-14

D3040.01.04 Ducts: Air Distribution*

Air distribution ducts include the fresh air, supply air, return air and exhaust air duct systems. Ductwork is overhead galvanized steel type.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-14

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air outlets and inlets include supply air diffusers and return air grilles. Supply air diffusers are typically square ceiling mounted four vane diffusers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-14

D3040.02 Steam Distribution Systems: Piping/Pumps**

Steam is supplied to the building from the central power plant on the site (8 psi steam is supplied for building HVAC use). The 15 psi steam line is located in the basement mechanical room (room 012/013).
Steam piping distribution to AS-5&6, heat exchangers and building steam heating terminal units (radiation cabinets, unit heaters, etc.).
This element includes the steam distribution piping, condensate collection piping, piping insulation, traps, valves, piping specialties, and condensate tanks and pumps.
There is one steam condensate return system in the basement mechanical room (a packaged system including a tank and duplex condensate return pumps).

Rating	Installed	Design Life	Updated
1 - Critical	1950	40	MAR-14

Event: Replace Building Steam Heating System.- (BOE:6382 sq.m. GFA.)

Concern:

The steam and condensate piping is corroded, numerous piping failures have occurred.
Significant risk of patient injury when piping failures occur.

Recommendation:

Replace the building steam heating system with a hot water heating system (not including terminal units which are covered under separate elements).

Type	Year	Cost	Priority
Failure Replacement	2014	$850,000	High

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems**

Hot water/glycol heating loop to the building air handling unit heating coils (for rooftop air handling units AS1 through AS4). The hot glycol heating loop includes two steam to hot glycol shell and tube type heat exchangers, two hot water circulation pumps, an expansion tank, and a glycol fill tank. The hot glycol heating loop also includes the hot glycol distribution piping, piping insulation, valves, and piping specialties.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-14

Event: Replace Hot Water Glycol Distribution System.- (BOE: 700m. L.)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$450,000	Unassigned

Updated: MAR-14

D3040.04.01 Fans: Exhaust**

Variety of exhaust fans provided for the building. Fans are located on the roof wall and on ground. Fans are dome, upblast and cabinet types.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 24 Exhaust Fans.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$85,000	Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

Most of the building exhaust fans have associated duct systems for the collection of air from single or multiple source locations and/or for the conveyance of air to the discharge point (most of the exhaust fans have only suction side duct systems).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust outlets and inlets include collection grilles (including hoods), as well as stacks or discharge ducts and diffusers, where applicable. Most of the exhaust fans in this building have associated inlet grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D3040.05 Heat Exchangers**

Steam to hot water/glycol shell and tube type heat exchangers for the building heating loop (which supplies the air handling unit heating coils for AS1 through AS4). The heat exchangers are located in the basement mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 2 Heat Exchangers.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$40,000	Unassigned

Updated: MAR-14

D3050.03 Humidifiers**

Steam grid humidification system serving AS-1 to AS-4.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	25	MAR-14

Event: Replace 4 Humidifiers.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$25,000	Unassigned

Updated: MAR-14

D3050.05.01 Convectors**

Steam heating terminal units include convection cabinets used at high heat load areas including building entrances and stairwells.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	40	MAR-14

Event: Replace 8 steam convection cabinets.

Concern:
Convection cabinets are deteriorated and can fail anytime.
Recommendation:
Replace steam convection cabinets with hot water force flow heaters.

Type	Year	Cost	Priority
Failure Replacement	2014	$48,000	Medium

Updated: MAR-14

D3050.05.02 Fan Coil Units**

Fan coils used in the centre wing second floor for heating. These fan coils are equipped with glycol heating coils.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 4 Fan Coils.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$20,000	Unassigned

Updated: MAR-14

D3050.05.03 Finned Tube Radiation**

Steam heating terminal units include finned tube radiation cabinets used for perimeter heating.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	40	MAR-14

Event: Replace the steam radiation cabinets with hot water radiation cabinets when the steam heating system is replaced with a hot water heating system - (BOE. 6382 sq.m. GFA)

Concern:

Finned tube radiation elements are corroded, cabinets deteriorate.

Recommendation:

Replace steam radiation cabinets with new hot water radiation cabinets.

Type	Year	Cost	Priority
Failure Replacement	2014	$400,000	Medium

Updated: MAR-14

D3060.02.02 Pneumatic Controls**

Building HVAC system controls are primarily pneumatic (thermostats, control valves, damper actuators, etc.). The control air supply system is located in the basement mechanical room and consists of two control air compressors mounted on an air receiver tank, and a refrigerated air dryer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-14

Event: Replace Pneumatic Controls. BOE: 6382 sq.m. GFA.

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$120,000	Unassigned

Updated: MAR-14

D3060.02.05 Building Systems Controls (BMCS, EMCS)**

Honeywell building management and control system (BMCS) which provides monitoring and control functions for the main building HVAC equipment and systems. The equipment is monitored and controlled from the central plant. HVAC equipment and systems which are monitored and controlled include the four main air handling units (AS1 through AS4), the glycol heating loop, some of the exhaust fans, and the morgue refrigeration systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	20	MAR-14

Event: Replace BMS.- (BOE: 6382 sq.m. GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$225,000	Unassigned

Updated: MAR-14

D4010 Sprinklers: Fire Protection*

Building is partially sprinklered for fire protection (including the north wing, basement, and rooms 232 and 233).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D4020 Standpipes*

Bbuilding is equipped with standard fire hose cabinets for building fire protection. It appears that the fire hose cabinets were originally fed from the building domestic water distribution system and that there was no separate standpipe system. When the sprinkler system was installed in1978, the fire hose cabinets were tied into the sprinkler system fire protection water supply.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Wall mounted dry chemical type fire extinguishers are located throughout the building, and fire extinguishers are also located in the fire hose cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

D4090.04 Dry Chemical Fire Extinguishing Systems (Kitchen Hood)**

A wet chemical automatic fire suppression systems is used for the cooking hood located in the first floor cafeteria (Budz Bistro).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-14

Event: Replace 1 Fire Suppression System.

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$25,000	Unassigned

Updated: MAR-14

S5 ELECTRICAL

D5010.01.01 Main Electrical Transformers (Facility Owned)**

Building No. 8 is fed with a radial feed from manhole #4 on the 4.16kV loop feed originating in the power plant (cells 8 and 12). Three Westinghouse 167kVA, 2400V-120/208V transformers are located in the transformer vault room (Basement Level). A 4160V load interrupter switch has been provided for the incoming 4160V feeder. The transformer vault room is accessed from the enclosed courtyard.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-14

Event: Replace 3 Main Electrical Transformers (Facility Owned)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$125,000	Unassigned

Updated: MAR-14

D5010.03 Main Electrical Switchboards (Main Distribution)** - 120/208V

The main 120/208V switchboard for Building No. 8 is located in the main electrical room (room 006 - Basement level). The main switchboard is a Westinghouse, 2000A, 120/208V, 3 phase, 4 wire switchboard with moulded case branch breakers and a 2000/1800A main breaker. The main switchboard feeds twenty branch circuit panels, four rooftop units and the transfer switch.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-14

Event: Replace 1 Main Electrical Switchboards (Main Distribution)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$60,000	Unassigned

Updated: MAR-14

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1950

There two original panels installed in the basement. It is hard to find replacement parts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	30	MAR-14

Event: Replace 2 Electrical Branch Circuit Panelboards (Secondary Distribution)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$24,000	Unassigned

Updated: MAR-14

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1978

There are 20 panels in the building. Westinghouse panels (15) were installed as part of the 1977 renovation. A few Square D and Federal Pioneer panels have been installed since the 1977 renovation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 20 Electrical Branch Circuit Panelboards (Secondary Distribution)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$240,000	Unassigned

Updated: MAR-14

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)**-1996

Panel ED is a Cutler Hammer emergency panel that was installed in 1996.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	30	MAR-14

Event: Replace 1 Electrical Branch Circuit Panelboards (Secondary Distribution)**

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$12,000	Unassigned

Updated: MAR-14

D5010.07.02 Motor Starters and Accessories** - 1978

Individual motor starters and load switches are used major mechanical ventilation units and some small water pumps. Starters are complete pilot lights and hand-off-auto selector switches. There are original GE and 1977 Westinghouse individual motor starters in the building. The starters are typically provided where the motor loads are located remotely.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 18 Motor Starters and Accessories.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$27,000	Unassigned

Updated: MAR-14

D5010.07.02 Motor Starters and Accessories** - 2000

Newer Square D individual motor starters have been provided for mechanical equipment in the basement.

Rating	Installed	Design Life	Updated
5 - Good	2000	30	MAR-14

Event: Replace 15 Motor Starters and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$22,500	Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring*

The majority of the cabling is standard building wire installed in EMT or rigid conduit. BX has been used for some of the branch wiring. Bus duct has been run between the transformer vault and the main switchboard. The emergency distribution was upgraded in 1996. There are car plug-ins on the building exterior.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5020.02.01 Lighting Accessories: Interior (Lighting Controls)*

Low voltage relays and switches have been used for interior lighting control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5020.02.02.01 Interior Incandescent Fixtures*

There are incandescent A-lamps in porcelain bases in the crawl space and in some cove lighting fixtures. Fixtures are old, but It is not effecting any of the operation in the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5020.02.02.02 Interior Fluorescent Fixtures**

Lighting is predominantly fluorescent surface and recessed mounted T12 fixtures. T12 strip fluorescent fixtures are typically installed in the basement. Vapor-proof fluorescent fixtures have been provided in the kitchen. More efficient light fixtures are available in the market.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-14

Event: Replace 1280 Interior Fluorescent Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$416,000	Unassigned

Updated: MAR-14

D5020.02.03.01 Emergency Lighting Built-in*

The facility has a back up generator for emergency lighting. The building is fed from this power generator for emergency power needs and lighting system. Some of the light fixtures are assigned as emergency lights with good coverage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery units have been provided in some areas of the building including the electrical and transfer switch rooms. Units with integral heads in lexan cubes have been provided in some of the patient areas.

The battery packs are regularly tested, and replaced if required.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	20	MAR-14

Event: Replace 4 Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$4,800	Unassigned

Updated: MAR-14

D5020.02.03.03 Exit Signs*

Exit signs have been installed at building exits and along egress routes. The exit signs have either LED or incandescent lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

HPS wallpack fixtures are located on the exterior walls of the building perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	MAR-14

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls)*

Exterior lighting is photocell controlled.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	MAR-14

D5030.01 Detection and Fire Alarm**

The original fire alarm system for the an Edwards 8500 system. There is newly installed Edwards EST panel. It is in progress of commissioning, will be done by end of this year. The main fire alarm panel is located in room 006 (the main electrical room). 7 remote annunciator panels have been provided at the nurses station. System consists of manual pull stations, detectors and bells located throughout the facility.

Rating	Installed	Design Life	Updated
5 - Good	2013	25	MAR-14

Event: Replace Detection and Fire Alarm.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$208,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access** - Card Access System

A Simplex card access system has been installed within the facility with proximity card readers at selected locations. Newly Lenel system will be installed in the new year.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	MAR-14

Event: Replace Card Access System.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$20,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access** - Duress System

A Simplex 3400 duress system has been installed within the facility. Newly Lenel system will be installed in the new year.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	MAR-14

Event: Replace Duress System.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$40,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access** - Patient Monitoring System

Patient monitoring systems (Wander Comm and Spider Alert) have been installed within the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	MAR-14

Event: Replace Patient Monitoring Systems.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$20,000	Unassigned

Updated: MAR-14

D5030.02.04 Video Surveillance**

The front end of the video surveillance system is a Burle switcher. 7 cameras, 1 monitor, 1 switch are located in selected areas of the building and in the enclosed courtyard. The monitor and front end equipment for the surveillance system are located in the main control room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	MAR-14

Event: Replace Video Surveillance System.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$60,000	Unassigned

Updated: MAR-14

D5030.04.01 Telephone Systems*

Meridian telephone backboards and termination blocks are located in the main telephone room 006 and electrical closets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-14

D5030.04.03 Call Systems** - Intercom

Rauland telecenter ICS stations have been provided for communications within the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	25	MAR-14

Event: Replace Call Systems.- (BOE: 6382 m2 GFA.)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$40,000	Unassigned

Updated: MAR-14

D5030.04.04 Data Systems*

Data outlets are installed through offices; and Copper wiring is typically CAT 5E balanced twisted pair with FT4 rated insulation. Bell supernet has been brought into the building (Rm. 1048).

Rating	Installed	Design Life	Updated
5 - Good	2006	0	MAR-14

D5030.04.05 Local Area Network Systems*

Network servers are located in the main electrical room (Room 006 - Basement) and room 030. The equipment is typically rack mounted.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	MAR-14

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

The emergency power for building #8 is supplied from an exterior 55kW Kohler generator set in a sound attenuating enclosure. The generator has a 120/208V output. There is an ASCO 962 bypass/isolation transfer switch located in room 004 - Basement level.

Rating	Installed	Design Life	Updated
5 - Good	1996	35	MAR-14

Event: Replace 1 Generator.

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$90,000	Unassigned

Updated: MAR-14

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.03 Food Service Equipment*

Budzzz Bistro is equipped with stainless steel built-in and movable type equipment for food preparation, dishwashing, refrigerator/freezers and storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

E1090.04 Residential Equipment*

Refrigerators, stoves, washer and dryer are located in the common kitchen & lounge areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

E2010.02 Fixed Casework**

Upper and lower cupboards & storage cupboard are located in staff room & common kitchen areas. The units are constructed of clear and/or painted plywood veneered with hardwood edges. Fixed millwork is located throughout the administration office areas, nurses stations & storage rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	35	MAR-14

Event: Replace millwork in kitchens, nurse stations and general office areas.- (B.O.E. 50m)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$55,000	Unassigned

Updated: MAR-14

E2010.03.01 Blinds**

Interior windows have a variety of blinds throughout the interior corridors & office areas. Several of the exterior windows have vertical blinds..

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	MAR-14

Event: Replace blinds.- (B.O.E. 75 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$9,000	Unassigned

Updated: MAR-14

E2010.03.06 Curtains and Drapes**

Curtains are located throughout the patient rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	MAR-14

Event: Replace curtains in the patient rooms.- (B.O.E. 75 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$9,000	Unassigned

Updated: MAR-14

F1020.02 Special Purpose Rooms

Isolation/quiet rooms are provided at both floor levels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	50	MAR-14

S8 SPECIAL ASSESSMENT

K4010.02 Barrier Free Entrances*

Power assist doors are provided at the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-14

K4010.03 Barrier Free Interior Circulation*

Barrier free access is provided throughout the public spaces of the building. An elevator is located opposite the main entrance. The elevator extends to the basement level and allows access via the underground links to other buildings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

K4010.04 Barrier Free Washrooms*

Washrooms & tub rooms throughout the building accommodate barrier free accessibility. (The majority of the patients are assisted by staff.)

Rating	Installed	Design Life	Updated
4 - Acceptable	1950	0	MAR-14

K4030.01 Asbestos*

Asbestos is assumed to be present in the mechanical insulation, but the staff and patients do not come in contact with it.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-14

K4030.04 Mould*

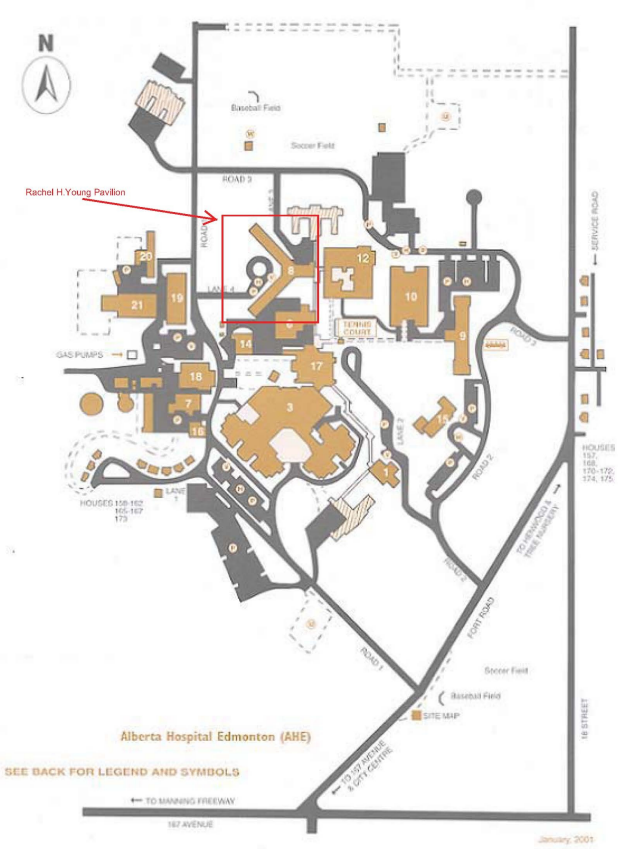
No mould was noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-14

K5010.01 Site Documentation*

Prime Consultant: Bacz Engineering Ltd.
Year of Evaluation: 2013
Building Area Evaluated: 17499 m2

Rating	Installed	Design Life	Updated
4 - Acceptable	2013	0	MAR-14



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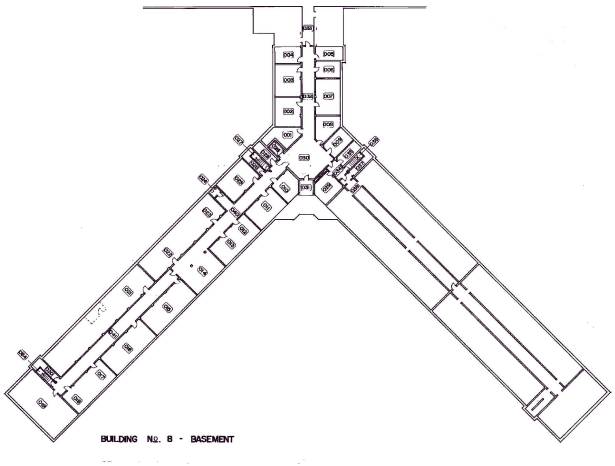
K5010.02 Building Documentation*

Two storey building structure with a partial basement below the north and east wings of the building and an accessible crawl space below the south wing. The building is linked via an enclosed walkway to the Laundry & Food services building to the south and to Building #12 to the East.

Rating	Installed	Design Life	Updated
4 - Acceptable	2013	0	MAR-14



Basement.