

RECAPP Facility Evaluation Report

Alberta Health Services-Edmonton



Royal Alexandra Hospital Materiel Management Centre

B1029I
Edmonton

Facility Details	
Building Name:	Royal Alexandra Hospital M:
Address:	10207 - 111 Avenue
Location:	Edmonton
Building Id:	B1029I
Gross Area (sq. m):	6,487.00
Replacement Cost:	\$8,265,586
Construction Year:	0

Evaluation Details	
Evaluation Company:	Bacz Engineering Ltd.
Evaluation Date:	November 20 2013
Evaluator Name:	Eric Lumley

Total Maintenance Events Next 5 years:	\$808,500
5 year Facility Condition Index (FCI):	9.78%

General Summary:

The facility built in 1993, has a large double height material handling area on the basement and sub-basement levels, with offices on the first level and electrical and mechanical rooms on the second floor.

Generally the building is in acceptable condition.

Structural Summary:

The structure comprises cast-in-place concrete columns and floor slabs supported by concrete beams, foundation walls and bell piles. The top level has a steel column structure supporting OWSJ and steel roof decking.

Generally the structure is in acceptable condition.

Envelope Summary:

The building has exterior facing brick, glazed aluminum curtain walling and an inverted roofing system. There are steel and aluminum exterior doors and the loading bay has vertical lift panellized metal vehicle doors.

Generally the building envelope is in acceptable condition.

Interior Summary:

The lower two levels are painted concrete structure and painted concrete block. Level one has offices constructed of steel stud gypsum board partitions, T-bar ceiling and sheet vinyl flooring, with perforated fabric roller blinds on the windows. The upper floor is painted concrete floors with painted gypsum board partitions and an exposed steel roof deck.

Generally the interior finishes are in acceptable condition.

Mechanical Summary:

Low pressure steam distribution from pressure reducing stations to heat exchangers located in mechanical room and to humidifier serving one air handling unit.

Plate steam to glycol heat exchangers are provided within a building to serve heating systems. Secondary circulation pumps are provided inside mechanical room to distribute hot water and glycol.

Air distribution system is via low velocity ductwork to grilles and diffusers.

Air conditioning is provided via chilled water distributed from central chiller plant to cooling coils serving air handling units.

Hot water / glycol distribution to perimeter radiation, re-heat coils, unit heaters and force flow heaters.

Steam grid humidification systems provided in the main air handling unit.

Domestic cold water service from ATC building. Domestic hot water is supplied by an electric tank type domestic water heater.

Copper piping distribution to plumbing fixtures complete with domestic hot water recirculation systems.

MMC building houses three cooling towers that serve RAH complex as well as central Oxygen tank and central Nitrous Oxide.

Controls are combination of pneumatic and direct digital systems, provided to monitor and control functions for the main building HVAC equipment and systems.

Fire protection system for the facility consists of sprinkler system, pre-action, standpipe system, fire blankets and held fire extinguishers.

Overall mechanical systems are in acceptable condition.

Electrical Summary:

The main emergency power generation plan with three 1000KW generators are installed in the building for entire hospital emergency power supply. The three emergency generators provide power to their own 5 KV Buses and all the Buses are tied together. The Normal Power service for the building is two 13.8KV lines from hospital main electrical room and the emergency power is 5KV from the one of the emergency Buses, The few transformers are used to transformer the power from 13.8KV and 5KV to 347/600V and from 600V to 120/208V.

The T-12 lamp fluorescent fixtures are used throughout most part of the building except some metal halide high bay lights are used in Shipping/Receiving areas.

The fire alarm, security access, video surveillance and telephone/data systems meet current building operation requirements.

The overall rating for electrical system is "Good"

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**A1020 Special Foundations***

Bored cast-in-place bell piles supporting grade beams and foundation walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

A1020.07 Grade Beams

Reinforced concrete grade beams supported on bell piles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

A1030 Slab on Grade*

Reinforced concrete slab-on-grade (150mm thick) at sub-basement level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

A2020 Basement Walls (& Crawl Space)*

Reinforced concrete retaining walls to perimeter of sub-basement and basement levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.01 Floor Structural Frame (Building Frame)*

Structural concrete floor slabs supported on concrete beams and columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.03 Floor Decks, Slabs, and Toppings*

Concrete floor slabs with hardener or painted, of vinyl floor finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.06 Ramps: Exterior*

Exterior concrete ramp provides barrier free access to main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.07 Exterior Stairs*

Cast-in-place exterior steps and structural stoop at main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.09 Floor Construction Fireproofing*

Cast-in-place concrete floor slabs provide fireproofing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1010.10 Floor Construction Firestopping*

Floor penetration firestopping and fire dampers appear to be present.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1020.01 Roof Structural Frame*

Steel columns on level 2 support steel beams and OWSJ and metal roof decking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B1020.03 Roof Decks, Slabs, and Sheathing*

Concrete topping on steel roof decking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

S2 ENVELOPE**B2010.01.02.01 Brick Masonry: Ext. Wall Skin***

Facing brick veneer to two above-grade levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

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

Caulking to perimeter of windows and doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace caulking.- B.O.E. 81 m

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$2,400	Unassigned

Updated: MAR-14**B2010.02.03 Masonry Units: Ext. Wall Const.***

Concrete block inner wythe to exterior walls above grade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation*

Assumed to be semi-rigid cavity insulation with a membrane air barrier on the outer face of the block inner white.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B2010.06 Exterior Louvers, Grilles, and Screens*

Mechanical louvers and grilles at mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B2020.03 Glazed Curtain Wall**

Glazed aluminum curtain wall at main entrance and glazing on north facade.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Glazed Curtain Wall.- B.O.E. 192 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$223,500	Unassigned

Updated: MAR-14

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum framed doors at main entrance and east entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace Aluminum-Framed Doors.- B.O.E. 3 doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$10,150	Unassigned

Updated: MAR-14

B2030.02 Exterior Utility Doors**

Insulated metal utility doors to Bulk Gas enclosure and exit corridor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Utility Doors.- B.O.E. 3 doors

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$2,550	Unassigned

Updated: MAR-14

B2030.03 Large Exterior Special Doors (Overhead)*

Insulated metal panel vertical lift doors to loading bays.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B3010.01 Deck Vapour Retarder and Insulation*

Inverted roofing system provides vapour barrier at concrete deck level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

B3010.04.08 Membrane Roofing (Inverted/Protected)**

Inverted roofing system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace Inverted Roofing.- B.O.E. 2137 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$435,950	Unassigned

Updated: MAR-14

S3 INTERIOR**C1010.01 Interior Fixed Partitions***

Painted concrete block and painted gypsum board on steel studs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1010.05 Interior Windows*

Pressed steel frames with clear and Georgian wired glazing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1020.01 Interior Swinging Doors (& Hardware)*

Fire rated painted steel doors in pressed steel frames in stairwells. Painted wood doors in pressed steel frames in office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1020.03 Interior Fire Doors*

Fire rated steel doors in steel frames in stairwells.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1030.01 Visual Display Boards**

Tackboards in office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace Tack Boards.- B.O.E. 8 units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$2,000	Unassigned

Updated: MAR-14

C1030.02 Fabricated Compartments (Toilets/Showers)**

Prefinished metal toilet partitions in mens and ladies washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace washroom cubicles.- B.O.E. 3 cubicles

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$3,600	Unassigned

Updated: MAR-14

C1030.06 Handrails*

Guard rails provided on dock levellers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1030.10 Lockers**

Prefinished full height metal lockers in mens and womens locker rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace Lockers.- B.O.E. 20 lockers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$9,750	Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

Metal storage shelving in various storage rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C1030.14 Toilet, Bath, and Laundry Accessories*

Toilet tissue dispenser, waste bin, mirror.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C2010 Stair Construction*

Cast-in-place concrete stairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C2020.01 Tile Stair Finishes*

Quarry tile nosings to stair treads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C2020.08 Stair Railings and Balustrades*

Painted pipe rail handrails, guard rails and supports.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C3010.06 Tile Wall Finishes**

Tile splashback to urinal in mens washroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Tile Wall Finishes.- B.O.E. 2 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$510	Unassigned

Updated: MAR-14

C3010.11 Interior Wall Painting*

Office area has paint finish to partitions in all areas. Material handling area has paint finish to walls and columns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C3020.01.02 Painted Concrete Floor Finishes*

Painted concrete floors to electrical and mechanical rooms and stairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

C3020.07.02 Resilient Sheet Flooring**

Sheet vinyl flooring throughout office and administration areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace Sheet Vinyl Flooring.- B.O.E. 366 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$29,300	Unassigned

Updated: MAR-14

C3030.01 Concrete Ceiling Finishes (Unpainted)*

Unpainted concrete underside to level 1 floor slab.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

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

T-bar ceiling throughout office and administration areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	25	MAR-14

Event: Replace T-Bar lay-in tiles.- B.O.E. 366 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$17,050	Unassigned

Updated: MAR-14

D1010.01.04 Hydraulic Freight Elevators**

Three freight hydraulic elevators rated at 2087Kg each, service the materials handling areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Refurbish freight elevators.- B.O.E. 3 elevators

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$261,000	Unassigned

Updated: MAR-14

S4 MECHANICAL**D2010.04 Sinks****

Floor mounted mop sink in janitor room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 1 Sinks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$2,000	Unassigned

Updated: MAR-14

D2010.09 Other Plumbing Fixtures*

Drench showers and emergency eye wash stations in service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

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

UR - urinal, wall mounted, vitreous china, infrared flush valve.

LV - lavatories are wall mounted vitreous china with gooseneck faucet, and counter mounted enameled steel with lever blades faucet.

WC - water closets are floor mounted, vitreous china, elongated open front seat with manual flush valve.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	35	MAR-14

Event: Replace 7 Washroom Fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$11,000	Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper piping distribution throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2020.01.02 Valves: Domestic Water**

Plumbing fixtures complete with isolation valves.
Main branches isolated.
Ball, gate and globe valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace 40 Valves: Domestic Water.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$8,000	Unassigned

Updated: MAR-14

D2020.01.03 Piping Specialties (Backflow Preventers)**

Reduced pressure backflow preventors serving fire line.
Backflow prevention device serving sanitary line from elevator shaft.
Vacuum breakers serving shell tube heat exchangers.
Backflow preventer assembly serving cold water make-up.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace 8 Piping Specialties (Backflow Preventors).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$45,000	Unassigned

Updated: MAR-14

D2020.02.06 Domestic Water Heaters**

Tank type electric water heater located in mechanical room. Giant model 172ETE, 4.5kW heating capacity, 189 l storage volume.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	20	MAR-14

Event: Replace 1 Domestic Water Heater.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2026	\$3,500	Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

Domestic cold and hot water lines are insulated with 25mm fiberglass thermal insulation inside a general insulation jacket.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2030.01 Waste and Vent Piping*

Cast iron, copper and PVC piping throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2030.02.04 Floor Drains*

General purpose floor drains are located in all mechanical rooms, large washrooms and service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2030.03 Waste Piping Equipment*

Sump pump serving elevator shaft complete with duplex pump.
Sump pump complete with submersible pumps serving weeping tile system.
Double compartment grit interceptor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2040.01 Rain Water Drainage Piping Systems*

Rain water is collected internally to underslab storm main. PVC piping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2040.02.06 Area Drains*

Area floor drains located Truck Dock.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D2090.10 Nitrous Oxide Gas Systems**

Nitrous Oxide Storage Tank complete with supply lines and fill connections located outside at south west corner of MMC building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace Nitrous Oxide Gas Tank and Associated Piping. (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$75,000	Unassigned

Updated: MAR-14

D2090.11 Oxygen Gas Systems**

Primary Oxygen tank serving RAH, regulating panel, vapourizer and oxygen supply lines are located outside at south west corner of MMC building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 1 Oxygen Storage Tank and Associated Componenets.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$125,000	Unassigned

Updated: MAR-14

D3010.01 Oil Supply Systems (Fuel, Diesel)*

There are two fuel oil supply tanks located in fuel storage room beside generators. These tanks are day tanks (2273 l storage capacity each) complete with 50mm fuel oil supply and return lines.

Two fuel oil transfer pumps are located in NE Parkade. These pumps serve two 22730 storage tank complete with high level alarm.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3030.05 Cooling Towers - 1993**

Baltimore Air Coil model TMT105-2 closed circuit cooling towers locate on the Level 1 roof, complete with piping distribution to chillers located in NE Parkade sub-basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1993	25	MAR-14

Event: Replace 2 Cooling Towers.

Concern:

Existing cooling towers experience bearing and gear failures, mis-aligned drive shafts and excessive vibration during peak load conditions.

Recommendation:

Replace existing cooling towers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2015	\$505,000	Medium

Updated: MAR-14

D3030.05 Cooling Towers - 2005**

Baltimore Air Coil model UV41161801 closed circuit cooling tower locate on the Level 1 roof serving Robin`s Pavilion complete with piping distribution to chillers located in NE Parkade sub-basement mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	25	MAR-14

Event: Replace 1 Cooling Tower.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$255,000	Unassigned

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution**

Three indoor built-up air handling units located in mechanical room on Level 2.

AHU-1 is the air processing unit for the offices and common areas. Engineered Air model LM-38, 16990 lps airflow complete with R/A fan, Rel/A, O/A and mix. Air dampers section, pre-heat coil, pre-filter, final filter, S/A fan, cooling coil, heating coil and humidifier.

AHU-2 serves Transport Equipment Storage and Vestibule Pressurization. Engineered Air model LM-3, 1690 lps airflow complete with filter, S/A fan, cooling coil and heating coil.

AHU-3 serves Truck Dock areas. Engineered Air model LM-15C, 6607 lps airflow complete with pre-heat coil, pre-filter, final filter, S/A fan, cooling coil and heating coil.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 3 Air Handling Units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$450,000	Unassigned

Updated: MAR-14

D3040.01.03 Air Cleaning Devices: Air Distribution*

Replaceable media filters serving air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3040.01.04 Ducts: Air Distribution*

Low pressure galvanized steel ductwork throughout the building. Exposed ducts in service areas, offices ductwork concealed in ceiling space.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Various type of supply air grilles and diffusers located throughout. Round and square diffusers, linear and louver face grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

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

860kPa steam from RAH high pressure system to pressure reducing station.
103 kPa steam piping distribution to heat exchangers and humidifier serving main air handling unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Steam Distribution System.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$220,000	Unassigned

Updated: MAR-14

D3040.03.01 Hot Water Distribution Systems**

50/50 glycol solution is circulated to primary and secondary heating loops through 150mm diameter glycol supply and glycol return lines. Two base mounted Darling circulation pumps (22.7 lps @ 240 kPa head) distribute hot water/glycol mixture to air handling unit heating coils, perimeter radiation, unit heater, re-heat coils and force flow heaters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Hot Water Distribution System.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$650,000	Unassigned

Updated: MAR-14

D3040.03.02 Chilled Water Distribution Systems**

100mm diameter insulated chilled water supply and chilled water return lines serving chilled water loop to air handling units cooling coils.

Two Darling chilled water pumps: in-line mounted centrifugal type. 6.3 lps @ 240 kPa head.

Chilled water supply and chilled water lines from Chiller Room located in NE Parkade sub-Basement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace 2 Chilled Water Pumps, Distribution Piping and Accessories.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$95,000	Unassigned

Updated: MAR-14

D3040.03.03 Condenser Water Distribution Systems Pumps*

Condensate water system includes the condenser water distribution piping, piping insulation, valves, piping specialties, and circulation pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3040.04.01 Fans: Exhaust**

Variety of central exhaust fans provided in mechanical rooms. Fans serve general exhaust system, equipment storage rooms, truck dock etc. Exhaust fans are interlock with designated ventilation units.

Fans are centrifugal blowers with forward curved wheels. .

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 8 Exhaust Fans.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$85,000	Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

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. Galvanized steel ductwork distribution.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate and louver face exhaust air grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D3040.05 Heat Exchangers**

Steam to glycol shell tube heat exchangers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 2 Heat Exchangers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$40,000	Unassigned

Updated: MAR-14

D3050.02 Air Coils**

Duct mounted glycol re-heat coils serving interior areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 12 Reheat Coils.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$45,000	Unassigned

Updated: MAR-14

D3050.03 Humidifiers**

Steam grid humidifier serving air handling unit AHU M01FS.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	25	MAR-14

Event: Replace 1 Humidifier.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$10,000	Unassigned

Updated: MAR-14

D3050.05.02 Fan Coil Units**

Horizontal fan coil unit serving mechanical service space complete with glycol heating coil and cooling coil.
 Horizontal fan coil unit serving elevator machine room complete with cooling coil.
 Horizontal fan coil unit serving electrical room room complete with cooling coil.
 Horizontal and vertical force flow heaters serving entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 9 Fan Coil Units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$60,000	Unassigned

Updated: MAR-14

D3050.05.03 Finned Tube Radiation**

Perimeter radiation with various enclosures serving offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Finned Tube Radiation.- BOE: 90m liner length.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$50,000	Unassigned

Updated: MAR-14

D3050.05.06 Unit Heaters**

Hydronic unit heaters serving Logistics Area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace 9 Unit heaters.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$50,000	Unassigned

Updated: MAR-14

D3060.02.02 Pneumatic Controls**

Air compressor complete with refrigerated dryer, acting as a back-up. Main compressed air line from DTC building. Pneumatic actuators. 30mm compressed air line to pre-act system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	40	MAR-14

Event: Replace Pneumatic Controls.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$100,000	Unassigned

Updated: MAR-14

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

The building is equipped with Siemens building management and control system (BMCS) which provides monitoring and control functions for the main building HVAC equipment and systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace Building Systems Controls.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$195,000	Unassigned

Updated: MAR-14

D4010 Sprinklers: Fire Protection*

Building is sprinkled as per NFPA13. Automatic sprinkler system consists of wet pipes and pre-action systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D4020 Standpipes*

Standpipe system with cabinets provided in various sections.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers provided throughout:- carbon dioxide, multi-purpose dry chemical. All units complete with up-to-date certification tags.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

D4030.02 Fire Blankets and Cabinets*

Fire Blankets and Cabinets located in service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

S5 ELECTRICAL**D5010.01.01 Main Electrical Transformers (Facility Owned)****

The 500KVA transformer is used to transfer normal main incoming 13.8KV power to 347/600V power system; and 112.5 KVA transformer is used to transfer emergency 5KV power to 347/600V power system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	40	MAR-14

Event: Replace 2 Electrical Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$80,000	Unassigned

Updated: MAR-14

D5010.02 Secondary Electrical Transformers (Interior) - 2008**

Two small 15KV single phase 600/120/240V transformers are installed for new additional power requirements in Shipping/Receiving areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	40	MAR-14

Event: Replace 2 Secondary Electrical Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2048	\$4,000	Unassigned

Updated: MAR-14

D5010.02 Secondary Electrical Transformers (Interior) -1993**

The 112.5KIVA transformer is used for normal power to transfer 600V power to 120/208V system and 75KVA transformer is used for emergency power to transfer the 600V power to 120/208V system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	40	MAR-14

Event: Replace 2 Secondary Electrical Transformers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$12,000	Unassigned

Updated: MAR-14

D5010.03 Main Electrical Switchboards (Main Distribution)**

The main emergency power distribution system for entire hospital is installed in the main electrical room; the 5KV indoor switchboards consists three 5KV buses tied to three generators individually, three distribution sections of three Buses and the tied breakers for the Buses.

The Normal Power service for the building is two 13.8KV lines from hospital main electrical room; the indoor 13.8KV switchboard consists main incoming circuit breaker sections, 13.8KV transformer and normal power distribution section fed from the transformer for large normal power loads and 600V CDP in the building,

The 600V transfer switch is installed to provide power for 600V emergency system; the standalone switchboard consists 5KV/600V transformer, transfer switch and 600V distribution section.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	40	MAR-14

Event: Replace 1 Main Electrical Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$2,500,000	Unassigned

Updated: MAR-14

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

The 347/600V and 120/208V branch circuit panelboards are installed throughout entire building and most of them have 15% spare capacity.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	30	MAR-14

Event: Replace 19 Electrical Branch Circuit Panelboards

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$95,000	Unassigned

Updated: MAR-14

D5010.07.02 Motor Starters and Accessories**

One normal power MCC has total 5 sections and is used mainly for mechanical AC units and Pump controls; two emergency power MCC 's: one has 2 sections used for generator fuel pumps and compressor; the other has 3 sections used for pump controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	30	MAR-14

Event: Replace 10 Sections of Motor Control Centers

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$84,000	Unassigned

Updated: MAR-14

D5010.07.03 Variable Frequency Drives**

Three Drivers are used for large mechanical ventilation equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	30	MAR-14

Event: Replace 3 Variable Frequency Drives

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2040	\$42,000	Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring*

All the wires are copper and installed in the conduits.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

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

The low voltage switching is used for entire building lighting controls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5020.02.02.02 Interior Fluorescent Fixtures**

Mixed T-8 and T-12 lamp fluorescent fixtures are used through most parts of the building; usually when the T-12 lamp fluorescent fixtures failed, they would be retrofit with T-8 lamp fluorescent.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	30	MAR-14

Event: Replace 650 Interior Fluorescent Fixtures

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$266,000	Unassigned

Updated: MAR-14

D5020.02.02.03 Interior Metal Halide Fixtures*

The high bay fixtures are used in the storage and Shipping/Receiving areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5020.02.03.02 Emergency Lighting Battery Packs**

The emergency packs with remote heads are installed in the emergency generator room

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-14

Event: Replace 4 Emergency Lighting Battery Packs

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$4,800	Unassigned

Updated: MAR-14

D5020.02.03.03 Exit Signs*

The Exit signs are installed at required egress of the building and retrofit with LED type lights

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5020.03.01.03 Exterior Metal Halide Fixtures*

The 175W wall packs are installed around building perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

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

The outdoor lighting is controlled by photo cell

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5030.01 Detection and Fire Alarm**

The fully addressable Cerberus Pyrotronics control panel is used for entire build fire alarm system and have the control panel installed in the mechanical room and annunciate panel installed at main entrance of the building

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	25	MAR-14

Event: Replace Detection and Fire Alarm.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2018	\$120,000	Unassigned

Updated: MAR-14

D5030.02.03 Security Access**

The Lenel control system is used for security system and have door position switches and Card swipes installed at Shipping/Receiving areas and some secured rooms. The signals are sent to main Active Treatment Center.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	25	MAR-14

Event: **Replace Security Access System.- BOE: 6487 m2 GFA.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$25,000	Unassigned

Updated: MAR-14

D5030.02.04 Video Surveillance**

Only few cameras are installed in the building and the signals are sent to Omnicast system in Active Treatment Center.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	25	MAR-14

Event: **Replace Three Cameras**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$12,000	Unassigned

Updated: MAR-14

D5030.03 Clock and Program Systems*

The GPS Primex clocks are installed throughout the building interior.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	0	MAR-14

D5030.04.01 Telephone Systems*

The telephone system is tied to main telephone system in Active Treatment Center and have telephone outlets installed in the offices.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5030.04.04 Data Systems*

One Switch Hub is installed for the building and is tied to hospital main server by fiber optic.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5030.04.05 Local Area Network Systems*

The data outlets are installed in the office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	0	MAR-14

D5030.05 Public Address and Music Systems**

The TOA amplifier is installed in the building and the paging signals are came from Active Treatment Center.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	20	MAR-14

Event: Replace Public Address and Music Systems.- BOE: 6487 m2 GFA.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$25,000	Unassigned

Updated: MAR-14

D5090.01 Uninterruptible Power Supply Systems**

The Nite Corporation UPS unit is installed for uninterruptible power requirements for all the switchgears.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	30	MAR-14

Event: Replace One Uninterruptible Power Supply Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$7,000	Unassigned

Updated: MAR-14

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

Three 1000 KW generators are installed to provide power to entire hospital emergency power system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1993	35	MAR-14

Event: Replace 3 Packaged Engine Generator Systems

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$2,250,000	Unassigned

Updated: MAR-14

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1030.03 Loading Dock Equipment***

Dock levellers in loading bay.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

E2010.02 Fixed Casework**

Vanity cabinets in washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	35	MAR-14

Event: Replace millwork.- B.O.E. 2m

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$1,600	Unassigned

Updated: MAR-14**E2010.03.01 Blinds****

Perforated fabric roller blinds to windows.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	30	MAR-14

Event: Replace blinds.- B.O.E. 60 sq.m.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2023	\$6,550	Unassigned

Updated: MAR-14

S8 SPECIAL ASSESSMENT**K4010.01 Barrier Free Route: Parking to Entrance***

Concrete pedestrian ramp provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K4010.02 Barrier Free Entrances*

Power operated door provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K4010.03 Barrier Free Interior Circulation*

Each floor is at a single level.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K4010.04 Barrier Free Washrooms*

Barrier free washrooms provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K4030.01 Asbestos*

No asbestos noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K4030.04 Mould*

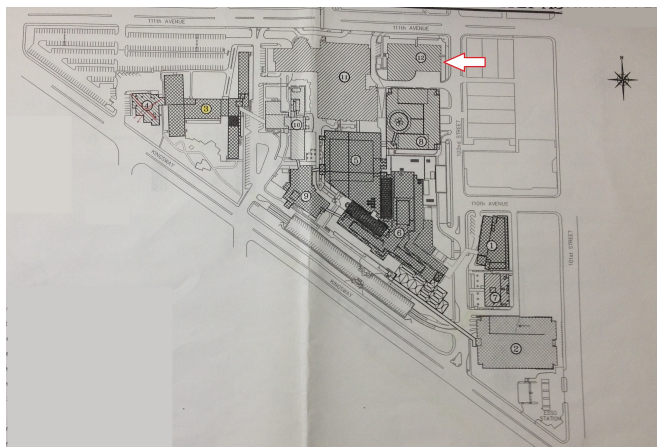
No mould noted or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-14

K5010.01 Site Documentation*

Prime Consultant: Bacz Engineering Ltd.
 Year of Evaluation: 2013
 Building Area Evaluated: 6487 m2

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2013	0	MAR-14

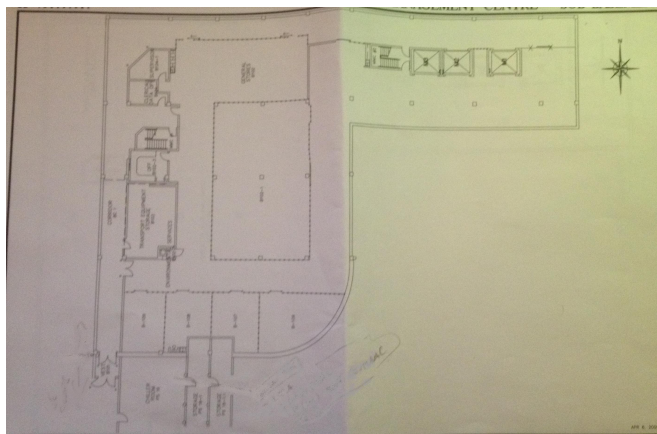


Site Plan

K5010.02 Building Documentation*

The facility has a large double height material handling area on the basement and sub-basement levels, with offices on the first level and electrical and mechanical rooms on the second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2013	0	MAR-14



Sub-Basement